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THE ELEMENTARY PHYSICAL EDUCATION PROGRAM: QUALITY AND SUSTAINABILITY IN PENNSYLVANIA

A Dissertation in

Educational Theory and Policy

By

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ABSTRACT

This study examined enabling conditions related to implementing and sustaining a high-quality physical education program at three elementary schools in Pennsylvania. Physical education is being reduced or removed from elementary curriculums because of reduced school budgets and a strong focus on academic standards. Furthermore, the lack of high-quality and sustainability comes from a stagnant focus on teaching from a traditional sports and games-based model, opposed to teaching from a lifelong fitness and wellness model. The study asked two questions: What does a high-quality physical education program look like? and What are the enabling and constraining conditions? Proceeding from a conceptual framework that included enabling program conditions, which was adopted from the 2006 School Health Policies and Programs Study (SHPPS) (Lee, Burgeson, Fulton & Spain, 2007), and four reform mechanisms, the study used a three-site, qualitative, comparative case study design (Yin, 1994). Qualitative data included interviews with 19 participants, the elementary physical education curriculums, school district websites, onsite observations, and researcher field notes and memos. Data analysis techniques were drawn from case study and grounded theory traditions. One set of findings described what high-quality programs look like using a lifelong fitness and wellness model. Another set of findings described what has made the programs sustainable. The third set of findings described how programs have been able to make the transition from a traditional sports and games based model to a lifelong fitness and wellness model. The study contributed findings to the research literature on elementary physical education program reform.
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Physical education requirements in schools have been shrinking simultaneously as the waistlines of American children have been expanding. Physical education is facing many challenges today, and two of the major challenges are quality and sustainability in a time of rising childhood obesity, cutting public school funding, and focusing on academic standards. The lack of high-quality and sustainability comes from a stagnant focus on teaching traditional sports, opposed to lifelong fitness and skill progression. Additionally, a critical element that is missing in elementary physical education is that there is little or no accountability for physical education teachers as well as the school to create and sustain quality programs (Prusak, Pennington, Wilkinson, Graser, Zanandrea, Hager, 2011).

Physical activity is critical to the development and maintenance of good health. According to the National Association of Sport and Physical Education (NASPE), the goal of physical education is to develop individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity. The perceptions of many adults regarding physical education are based on their own past experiences with the traditional sports-based approach. Over the past decade, the transition to “New PE” has focused on the need to introduce students to activities for lifetime fitness and provide a broad spectrum of activities, exercise methods, and techniques. In this model, teachers integrate health concepts throughout lessons and spend time teaching students why fitness and exercise are important as well as how they can continue to take the skills and activities learned in school and pursue them for a lifetime. A high-quality physical education program supports the physical, intellectual, and social-emotional development of students. When students maintain adequate levels of physical fitness and make healthy choices,
the conditions and opportunities for learning also increase. For these reasons, physical education plays an integral role in a comprehensive, elementary educational program.

The cutting of physical education programs in K-12 public schools has been making national headlines for the past several years along with rising childhood obesity rates and failing academic performance. Physical education is being cut across the country to save money and satisfy federal mandates stressing test scores in math and reading. Physical education programs are not often seen as a main concern to administrators and society since many believe that richness of the student’s academic knowledge and performance is the premise for school. Budget constraints are frequently cited as reasons for the reduction or cutting of physical education programs particularly in low-income school districts (Symons, James & Groff, 1997). Time during the school day is another reason that is commonly cited as a reason for cutting physical education. Some schools claim that it is difficult to accommodate the additional time required for physical education while trying to focus on academic achievement. Examples of these cuts can be seen in schools in Pennsylvania, California, Washington, and Florida just to name a few.

Some school districts have taken a second look at their physical education program and have realized the program’s potential contribution to student health. Officials in the Chicago Public Schools were spurred into action by the rising childhood obesity rates and announced on April 19, 2012 that they plan to reinstate a physical education requirement in the 2013-2014 school year. A school district in Illinois plans to revise its physical education program for the 2012-2013 school year by introducing healthy living lessons and helping students establish a lifetime fitness plan starting at the elementary level. On February 16, 2012 it was announced that the Iowa Department of Education plans to add physical education to the Iowa Core, which
is the set of academic standards and expectations for students according to grade level. The standard will emphasize physical literacy, which is also the new proposed goal of NASPE’s curriculum framework. Finally in August 2011, NASPE started the process of revising the K-12 physical education standards and beginning to develop a curriculum framework. The premise for these revisions are based on the following findings within the field of K-12 physical education (Couturier, L., personal communication, September 28, 2011):

Student learners in physical education must develop:

- competency, particularly in fundamental motor skills
- confidence in motor skills and physical activity
- knowledge and skills that foster lifelong physical activity

Physical education teachers must:

- address the needs of less-skilled students
- de-emphasize full-sided games and competitive activities
- foster a mastery-oriented environment
- allow for choice in types of activities as well as level of challenge

The difference between the current goal and the proposed goal is that the current goal does not address the three specific learning domains, which can assist in placing physical education in the academic light. The current goal states: “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.” The proposed goal states: “The goal of physical education is to develop physically literate individuals who have the psychomotor, cognitive, and affective skills to adopt a physically active lifestyle”. NASPE’s rationale for altering the goal is, “The term ‘physical literacy’ is gaining in popularity and is parallel to terminology used in other subject
areas, such as ‘health literacy’ and ‘math literacy’. It is comprehensive in conveying what we are trying to accomplish in physical education” (Couturier, L., personal communication, September 28, 2011; NASPE, 2012).

There has been cynical discussion among state legislatures, school board members, and school administrators regarding the state and importance of elementary physical education in Pennsylvania. Due to the pressure of the No Child Left Behind Act, PSSA testing, and budget cuts, the discussion has been one that does not speak in favor of improving or retaining physical education even though the childhood obesity percentage in the state continues to rise. Research examining the correlation between physical activity, student health, and academic performance are being published on a regular basis (American Heart Association, 2010; Castelli, Hillman, Buck & Erwin, 2077; Shephard & Trudeau, 2008; Wechsler, McKenna, Lee, & Dietz, 2004). Elementary physical education has the power to teach students how to be aesthetic movers, lead a healthy lifestyle, and improve cognitive performance.

Research Questions

The purpose of this study is to examine the enabling conditions related to implementing and sustaining a high-quality physical education program at the elementary school level. My research questions are:

• What does a high-quality elementary physical education program look like (i.e., content, curriculum, etc.)?

• What are the enabling and constraining conditions?

The significance of my study first lies in the fact that it will be a step towards creating the crucial research links between expert opinion/suggestions and authentic practice. Second, it will
contribute a greater understanding as to the direction that all elementary physical education programs should be moving in order to have a positive, applicable effect on the future of adolescent health and physical activity patterns. Third, it will better position elementary physical education in the necessary light amongst the K-12 academic curriculum. Fourth, it will assist the schools that were studied to further improve and/or sustain a high-quality physical education program.

When this study was completed it was the only known study to examine the quality and sustainability of elementary physical education programs in Western Pennsylvania. This study contributes to the current literature an initial set of descriptive program findings that is strongly tied to a theoretical framework that opens the door for further research in the field of physical education.

Organization of the Study

This study is divided into nine chapters. Chapter 1 introduces the problem that elementary physical education is facing in Pennsylvania. Chapter 2 reviews the relevant literature pertaining to physical education both on the national level as well as in the state of Pennsylvania. Chapter 3 presents my conceptual framework, which is based on seven enabling conditions that constitute a high-quality and sustainable physical education program and four reform mechanisms. Chapter 4 explains my methodology and study design. Chapter 5 presents a rich description of Elementary A along with its findings. Chapter 6 presents a rich description of Elementary B along with its findings. Chapter 7 presents a rich description of Elementary C along with its findings. Chapter 8 presents an analysis of the three physical education
curriculums. Chapter 9 presents my findings across all three schools, discusses the significance of this study, the implications of its findings, and suggestions for future research.
CHAPTER 2 LITERATURE

To understand the enabling and constraining conditions of a high-quality, sustainable, and obesity preventative elementary physical education program this chapter will explore pertinent research related to my research questions. This study builds on three threads of research literature: elementary physical education, elementary physical education as an obesity prevention measure, and physical education recommendations and mandates. Figure 2.1 shows how these threads relate from the most general literature at the top of the funnel and tapering to this study. The figure places my work in the elementary physical education reform literature.

Figure 2.1 The Narrowing Focus of the Research Literature

The percentage of obese children in the United States continues to rise, while elementary physical education programs continue to face both positive and negative influencing conditions. Some of the positive conditions are: the development of K-12 fitness-based and skill-based curriculums, school district and state mandates for physical education teaching certification, and available grant money. To meet the needs to full-fill the rigors of a high-quality physical education program, relevant literature has stated that incorporating health-related fitness education into an elementary physical education program can help to meet the needs of the students and begin to set a foundation for a healthy lifestyle. The National Association for Sport
and Physical Education (NASPE) has turned towards wellness that combines physical activity with health concepts (Wikgren, 2012). On the contrary, several negative conditions have led to the decrease in elementary physical education throughout the country: the passing of the No Child Left Behind Act, 2001, academic standards, school district budgets, and administrative support (Story, Nanney, & Schwartz, 2009). This current childhood obesity crisis has placed schools, particularly elementary physical education programs and teachers, in a unique role of helping to reverse the epidemic (Bulger & Housner, 2009). Kimm and Obarzanek (2002) define childhood obesity as an epidemic because of its widespread geographic distribution. Although previous research has begun to address possible enabling conditions related to implementing and sustaining a high-quality, obesity preventative programs, the research community has yet to closely examine schools in Pennsylvania on a case-by-case basis. In Pennsylvania the situation is especially dire, approximately 30% of children in Pennsylvania are either overweight or obese (Robert Wood Johnson Foundation [RWJF], 2010; Trust for America's Health [TFAH], 2005).

A few elementary schools in Pennsylvania have implemented and sustained a high-quality physical education program that also serves as a means of obesity prevention.

Despite the fact that exercise and physical activity are key to curbing the rise in obesity, physical education is continuously being reduced or cut in schools across the country. Reasons for this reduction stems from budget issues as well as academic performance issues. Only 69.3% of elementary schools require physical education. Even more concerning is the fact that 20.8% of those elementary schools allowed students to be exempted from physical education requirements. 3.8% of elementary schools provide the daily physical education to all students in all grades for the entire school year. 68.1% of schools that required physical education taught dodgeball or bombardment, and more than half of elementary schools that required physical
education taught king of the hill or steal the flag, elimination tag, and duck-duck goose (SHPPS, 2006). Even if elementary schools do offer physical education, most students are not engaged in moderate to vigorous physical activity for the majority of class time (Fairclough and Stratton, 2005). These statistics reveal the current state of elementary physical education, which is one that is detrimental to student health as well as overall school performance.

As with any type of educational program change, there is a meticulous process that should be followed in order for the change to be successful. To improve the quality of an elementary physical education program, which entails incorporating new content and activities, instructional methods and collaboration, the process of change should parallel that of current health promotion advances (Dowda, Sallis, McKenzie, Rosengard & Kohl, 2005; Oldenburg, Hardcastle & Kok, 1997). Academic subjects taught at the elementary level need to be age and developmentally appropriate in order for a student to initially form a strong foundation and/or initial skill set and then progress towards proficiency. The same holds true for physical education. An elementary physical education program should target three learning domains: 1) cognitive 2) psychomotor 3) affective. In order for students to full-fill objectives in all three of these domains, the program should include a sequential skill and activity progression, a variety of instructional methods, multiple forms of assessment, and an environment that allows for maximal individual and group practice and participation.

If quality physical education programs are supposed to be ones in which most students are enthusiastically engaged in learning, ones which teaches them to value physical activity in order to embrace a physically active lifestyle, then a number of elementary programs are insufficient. The quality and practicality of physical education programs has been questioned for more than a decade with no apparent widespread improvements (Locke, 1992). The purpose and
value of physical education is not clearly defined, the understanding and use of standards is vague, the link between rising childhood obesity rates and the quality of physical education instruction is questioned, and the No Child Left Behind Act has been a hindrance to physical education. All of these issues are driving forces towards physical education revisioning.

Research Questions

My research questions are driven by the lack of critical analysis of elementary physical education programs as well as the opinions that have been presented by experts in the field such as Graham, Kretchmar, McKenzie, Siedentop, and Wechsler, but not closely examined in practice. The lack of critical analysis is evident in the research surrounding elementary physical education. One area of research communicates what experts believe should be taught at the elementary level in order to full-fill the definition of high-quality physical education. This research is based off of understanding student learning, motor control development, the rise in childhood obesity, and the idea of fun. On the other hand, there is a lack of examination of these suggested practices and the effectiveness at the elementary level. One of the main reasons for this lack of examination at the elementary level is the fact that such a small percentage of elementary schools offer an elementary physical education program that has implemented these suggested practices. Many studies have examined physical activity engagement among elementary students and individual characteristics associated with physical activity among youth, but not necessarily the actual physical education program. My research will begin to fill this void and examine suggested practices implemented into an actual elementary physical education program.
Very few elementary schools in Pennsylvania have implemented and sustained a high-quality physical education program that also serves as a means of obesity prevention. Only six states nationwide require 150 minutes per week of elementary physical education, and Pennsylvania is not one of them. The ambiguous physical education guidelines set forth by the state do not mandate elementary physical education, but rather recommends it. Furthermore, the guidelines do not mandate what skills, activities, or content knowledge must be taught at the elementary level. Schools are not required to follow a specific curriculum, but are required to use the standards as a curricular framework for the development of the local curriculum. The Pennsylvania Association of School Business Officials (PASBO) and the Pennsylvania Association of School Administrators (PASA) conducted a survey of all school districts in April 2012 and the results revealed that due to the financial constraints of the state, students will have reduced learning opportunities and one of those opportunities being the reduction or elimination of physical education. The percentage of school districts that will reduce instructional programming has increased more than four-fold, from 15 percent of districts in 2009-10 to 67 percent in 2012-13. Fifty-eight percent of the school districts reported that they plan to reduce elective course offerings (PASBO, 2012). On September 16, 2010, The Pennsylvania State Board of Education voted unanimously to remove the proposed physical education requirement from the final version of Chapter 12.

I begin by defining and describing the current and future state of elementary physical education. I follow that description with an explanation about the association between elementary physical education and childhood obesity. The state of elementary physical education on the national level as well as the situation in Pennsylvania will be discussed along with possible enabling conditions revealed by previous research. I close with a summary how
this relevant literature lends credence to my research questions regarding quality and sustainability of an elementary physical education program.

Elementary Physical Education

Elementary physical education faces both enabling and constraining conditions that range from financial support to administrative support. How a program views these conditions and takes a proactive approach can determine the quality of the program. Physical education in all K-12 schools provides the foundation for healthy, active lifestyles that support learning and ensure future success (NASPE, 2010). NAPSE (2003) uses the following four components to define high-quality physical education:

Table 2.1 High-Quality Physical Education According to NASPE

<table>
<thead>
<tr>
<th>Opportunity to Learn</th>
<th>Instructional periods totaling 150 minutes per week (elementary) and 225 minutes per week (middle and secondary).</th>
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<tr>
<td></td>
<td>Qualified physical education specialists providing a developmentally appropriate program.</td>
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<tr>
<td></td>
<td>Adequate equipment and facilities.</td>
</tr>
<tr>
<td>Meaningful Content</td>
<td>Instruction in a variety of motor skills that are designed to enhance the physical, mental, and social/emotional development of every child.</td>
</tr>
<tr>
<td></td>
<td>Fitness education and assessment to help children understand improve and/or maintain their physical well-being.</td>
</tr>
<tr>
<td></td>
<td>Development of cognitive concepts about motor skill and fitness.</td>
</tr>
<tr>
<td></td>
<td>Opportunities to improve their emerging social and cooperative skills and gain a multi-cultural perspective.</td>
</tr>
<tr>
<td></td>
<td>Promotion of regular amounts of appropriate physical activity now and throughout life.</td>
</tr>
<tr>
<td>Appropriate Instruction</td>
<td>Full inclusion of all students.</td>
</tr>
<tr>
<td></td>
<td>Maximum practice opportunities for class activities.</td>
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</tbody>
</table>
Well-designed lessons that facilitate student learning.
- Out of school assignments that support learning and practice.
- No physical activity for punishment.
- Uses regular assessment to monitor and reinforce student learning.

| Student and Program Assessment | Continuous
| Authentic |


Additionally NASPE (2003) states that high-quality physical education programs help students develop health-related fitness, physical competence, cognitive understanding, and positive attitudes about physical activity that they can adopt to their everyday life to lead an active and healthy lifestyle.

The four components that NASPE has attributed to a high-quality physical education program relate to one another in a cyclical order. This cycle can begin and end at any one of the four components. One cycle is in order to create an opportunity to learn, meaningful content must be taught using appropriate instructional methods and continuous student assessment must be administered to provide program feedback. A second cycle is appropriate instruction is guided by reviewing continuous student assessment which then assists in determining what content has been mastered and what content needs to be revised in order to create an opportunity to learn. A third cycle is student and program assessment provide feedback as to the effectiveness of the instructional methods and the learning opportunities that make the content meaningful to the student beyond physical education class.

Even though these four components can cycle is various orders, the elementary physical education teacher should be a driving force behind all of them. In order to be this driving force the teacher should have gone through an accredited teacher preparation program that issues
certification in the field of physical education. Physical education is to be taught by a trained specialist just like any other academic subject. Even after certification is earned, the teacher should continuously stay up to date on current practices in the field. The physical education teacher is the professional with the knowledge and the tools to design appropriate lessons, carry out the most effective instructional methods, and use appropriate student assessment measures to help students reach a level of skill proficiency.

The new mind-set for elementary physical education should be that of lifelong skill development and establishing healthy attitudes starting at an early age. These two components should be addressed at all three learning domains: cognitive, psychomotor, and affective. The emphasis should be placed on building lifelong skills and developing healthy attitudes rather than playing games, which has been a foundation of physical education (Wikgren, 2012). Graham, Holt, Hale, and Parker (2001) suggest that physical education should not be recess or just a fun time for children to expend energy. Elementary physical education should be a developmentally appropriate, enjoyable, educational experience. It should provide children with the skills necessary to reap the benefits of lifelong fitness. The American Heart Association is aware of the importance of sustaining a quality physical education program and the impact it can have on decreasing childhood obesity. They believe that physical education should be offered daily and is an important element to a student’s K-12 education experience. They argue that physical education is a central component in helping to reverse the increasing childhood obesity rates by teaching students how to be physically active and understand health-enhancing behaviors (AHA, 2011). Additionally, the curriculum and instruction should assist students in developing knowledge, attitudes, motor skills, behavioral skills, and confidence to sustain a physically active lifestyle starting in childhood and continuing through adulthood. As suggested
by the Council for Physical Education for Children (COPEC) elementary physical education should be both developmentally appropriate and instructionally suitable. A developmentally appropriate program is one that recognizes not all students progress towards skill proficiency at the same rate. Age, body size, fitness level, skill level, and previous skill experience should be considered in the planning of a lesson. Lessons, skills, and activities should vary by grade level and include modifications as well as challenges. Instructionally suitable means the program incorporates the best-known practices, uses multiple instructional methods in order to actively engage all students of all abilities (COPEC, 1992). These two ideas tie directly into the four components that NASPE uses to define a high-quality program. Developmentally appropriate and instructionally suitable programs maximize the student’s opportunity to learn and in turn improve the quality of the program.

Elementary Physical Education as an Obesity Prevention Measure

An association between childhood obesity and the lack/reduction of physical education at the elementary level exists. A high-quality elementary physical education program can have a hand in curbing the rise in childhood obesity when factors such as a shift in curriculum, instructional strategies, and school-wide collaboration are viewed as necessary (Gortmaker, Peterson, Wiecha, Sobol, Dixit, Fox, & Laird, 1999; Pyle, Sharkey, Yetter, Furlong & Poston, 2006). Physical education can play a substantial role in containing or reducing obesity if the conditions associated with physical fitness of children are understood and correctly implemented. Policy factors, curriculum, availability of space, implementation of school wellness policies, and fitness testing all contribute to the quality of the physical education program and student fitness levels. An elementary health-related physical education program that is properly taught could
potentially benefit 97% of students by increasing time involved in moderate to vigorous activity and encouraging physical activity outside of physical education (Gortmaker et al., 1999; Dater & Sturm, 2004; Sallis et al., 1997; Zhu, Boiarskaia, Welk, & Meredith, 2010).

There are limited studies that examine the statistical contribution that physical education has on childhood obesity opposed to the statistical contribution of physical activity, which is a limitation to my own research. On the other hand, the literature is saturated with expert knowledge and assumptions as to the causes of childhood obesity and the influence that elementary physical education can have. This study examines how physical activity is planned and programmed within a physical education and school setting.

One of the main causes of childhood obesity is the lack of physical activity. A high-quality elementary physical education program can be a catalyst to encourage students to become physically active and instill these habits starting at a young age (Goran, Reynolds, & Lindquist, 1999; Graber, Locke, Lambdin, & Solmon, 2008; Yetter, 2009). Today, a sedentary lifestyle is common among elementary aged children. With the increase of technology (computers, video game systems, and television) and the reduction of physical education at the elementary level, more and more children have become sedentary (USDHHS, The Office of the Surgeon General, 2010). If the elementary physical education program is taught effectively it will not only benefit the student while participating in class, but the student will be able to transfer that knowledge and apply skills outside of class. It is recommended that obesity prevention, which includes content knowledge as well as psychomotor objectives, needs to be implemented at a young age (Cook-Cottone, Casey, & Feely, 2009; Speiser et al., 2005). Thus, schools are in a unique position to be a powerful vehicle in curbing and decreasing the problem (Muran et al. 2006; Shephard & Trudeau, 2008; Story et al., 2009). Ninety-five percent of children in this country
are enrolled in public schools (Wechsler, McKenna, Lee, & Dietz, 2004). On average, a student spends 6.5 hours a day and over 180 days per year in school. Health experts as well as schools have recognized that schools can play a significant role in fighting the obesity epidemic. Schools have the capacity to expose students to daily physical activity as well as educate them about how to lead a healthy lifestyle (Dater & Strum, 2004; Humphrey, 1994).

Table 2.2 shows five objects that Healthy People 2010 proposed that focuses on K-12 physical education (USDHHS, 2001). The focus of Healthy People 2010 is to improve the overall health of Americans and encourage collaboration across sectors. The objectives Healthy People 2010 sets forth are measures and the results as reported in terms of the impact of such prevention activities. The five objectives focusing on physical education demand an increase in the amount of instructional time as well as an increase in the amount of engaged activity time. For physical education to have an impact on decreasing childhood obesity it needs to be offered on a regular and/or daily basis. The content should focus on lifelong fitness and creating a healthy lifestyle, which gives students the knowledge and skills to apply such behaviors beyond the gymnasium (NASPE, 2008). Furthermore, if the content is taught effectively then the likelihood of providing maximum engagement time in moderate to vigorous physical activity is higher. Healthy People 2010 recognizes the need to advocate for increased an improved physical education because if doing so it can be a childhood obesity prevention measure.

Table 2.2 Healthy People 2010 Goals: Physical Activity

<table>
<thead>
<tr>
<th>Objective Number</th>
<th>Description of Objective</th>
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<tbody>
<tr>
<td>22-6</td>
<td>Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days.</td>
</tr>
<tr>
<td>22-7</td>
<td>Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.</td>
</tr>
<tr>
<td>22-8</td>
<td>Increase the proportion of the Nation's public and private schools that require</td>
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daily physical education for all students.

<table>
<thead>
<tr>
<th>22-10</th>
<th>Increase the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active.</th>
</tr>
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<tbody>
<tr>
<td>22-12</td>
<td>(Developmental) Increase the proportion of the Nation’s public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and after the school day, on weekends, and during summer and other vacations).</td>
</tr>
</tbody>
</table>

*Source: HealthyPeople 2010 (2008)*

Elementary schools as well as administrators and physical education teachers have been hearing this message, but in a majority of cases it has not been seriously considered or implemented. “Without a strong contribution from schools, the nation as a whole is not likely to slow down or even reverse this epidemic” (Wechsler et al., 2004, p. 11). By elementary schools limiting physical education, they are doing a disservice to students and exempting opportunities for children to create healthy habits (Kretchmar, 2008; Story et al., 2009). They are also ignoring the fact that a physically active and healthy student is an academically better student (Trudeau & Shephard, 2008). Suggested practices, recommendations, and mandates have been offered by The National Association for Sport and Physical Education (NASPE), but schools have either ignored them or modified them to allow for other academic needs to be met.

**Physical Education Recommendations and Mandates**

In order for an elementary physical education program to be that of high-quality, constraints such as resistance to implement mandates or apply recommendations must be addressed. If there is a lack of implementation when it comes to new recommendations and ideas, then the program will lack credibility and the powerful force that it could be in helping young students build an active and healthy lifestyle. Currently there is no national physical education curriculum, only national standards that can be used to guide an elementary physical education program. The National Association for Sport and Physical Education offers
recommendations, which are published as position statements, that suggest what the experts in the organization think, but programs are not held accountable for implementing the recommendations.

The National Association for Sport and Physical Education (NASPE, 2010) has stated that the primary goal of physical education is for students to have the knowledge, skills, and confidence to enjoy a lifetime of healthy physical activity. The overarching goal of elementary physical education is to teach students fundamental locomotor, motor control, and health-related physical fitness skills that will lead to a healthy and active lifestyle (Graham et al., 2001; Shephard & Trudeau, 2008). To address the primary goal of physical education, NASPE (2010) established elementary physical education time recommendations: at least 150 minutes of weekly physical education and 60 minutes of moderate to vigorous physical activity daily. Presently, there is no federal law in place requiring physical education to be provided to all students in the United States educational system (American Heart Association [AHA], 2010). Each state has its own state-level recommendations or requirements.

Currently, only five states require physical education every year from kindergarten through twelfth grade. Forty-eight states have their own standards for physical education, but only two-thirds require local districts to comply with them, according to a 2010 report by the National Association for Sport and Physical Education. Pennsylvania’s mandates are limited and accountability measures are lacking. The most recent physical education mandates for the state were published in 2002 and the most recent revisions to the Academic Standards for Health, Safety and Physical Education were in 2003.

Pennsylvania mandates physical education and planned instruction in grades K-6, but the mandate does not apply for every year. The local school district determines the grade level(s) at
which students receive this instruction and the number of minutes per week. No specific physical education curriculum is required. Local school districts have the option of using any curriculum, as long as the program aligns with the Pennsylvania state standards. Schools must have an assessment system in place to monitor progress on the standards. Results are used by school districts to determine progress on the Health, Safety and Physical Education Standards. The standard benchmarks are grades 3, 6, 9, and 12, but may be assessed earlier. Formative assessment is expected to be ongoing within the physical education class, but there is not a formal accountability standard. Pennsylvania does not have a formal fitness test protocol, nor does the state have a standardized grade reporting system for physical education. Furthermore, Pennsylvania does not require students to complete a comprehensive assessment in order to graduate.

The state requires schools to collect students’ Body Mass Index (BMI) or height and weight once per year in first through twelfth grade. Results are sent to the state as aggregate data for the school. Individual student results are sent to the parents or guardians with an explanation of the BMI, the BMI score, BMI classification and, if necessary, recommendations to further discuss the results with a family physician.

In order to teach physical education at any level, kindergarten through twelfth grade, requires a state certification, but there is no set teacher to student ratio. Professional development continuing education hours or credits are required in order to maintain a teacher certification. A total of 180 hours must be completed over a five-year period. The state requires that professional development be completed in the area of certification. Pennsylvania highly encourages teachers to become certified through the National Board Certification process, however, physical education is not one of the priority disciplines. Additionally, the state does
not require each school district to have a certified physical educator serving as a Physical Education Coordinator.

The discussion regarding the state and importance of elementary physical education in Pennsylvania has been going on over the past year. The Pennsylvania Department of Education (PDE) has recognized the need for schools to play a preventative role in curbing the rise in childhood obesity. PDE completed a draft titled Chapter 12: Students and Student Services that would set baseline nutrition and physical activity standards for Pennsylvania students. On September 16, 2010, The Pennsylvania State Board of Education voted unanimously to remove the proposed physical education requirement from the final version of Chapter 12. The proposed requirement stated: The regulation also proposes specific weekly targets for formal physical education: 150 minutes at the elementary level and 225 minutes in middle and high schools.

According to the Department of Health statistics (Pennsylvania Department of Education Physical Education Fall Meeting, personal communication, October 11, 2010) more than one-third of kindergarten through twelfth grade students in Pennsylvania are either overweight or obese. Moreover, in 43 of the 67 counties statewide, the rates are even higher. The 2009 Robert Wood Johnson Foundation report ranked Pennsylvania first among fifty states in per capita costs related to obesity (Pennsylvania Department of Education Physical Education Fall Meeting, personal communication, October 11, 2010).

These mandates in conjunction with the elimination of physical education from Chapter 12 force elementary schools to become creative in order to enhance and sustain a physical education program. A strongly recommended method for battling the childhood obesity epidemic is to provide school-based physical education programs and target selective curricular material that will promote the necessary lifestyle change (NASPE, 2010; Sallis & McKenzie,
The quality of an elementary physical education program can have an impact on student health and wellness starting at a young age. Thus, the purpose of this study is to determine what conditions have contributed to producing a high-quality and sustainable physical education program at the elementary level.
CHAPTER 3 CONCEPTUAL FRAMEWORK

This chapter presents the framework that will guide the initial analysis of this study. This framework was chosen because it includes broad areas that are generally common to the strength or weakness of a public school elementary physical education program. It is ideal for illuminating the research questions because it can closely examine and explain the enabling and constraining conditions found within each separate program. The results from the 2006 School Health Policies and Programs Study (Lee, Burgeson, Fulton & Spain, 2007) for physical education and physical activity expose seven enabling conditions that contribute to creating a comprehensive physical education.

Enabling Conditions

The grim picture that childhood obesity has painted in regards to the future health of our nation requires administrators and physical educators to seriously think about how to provide necessary, high quality physical education opportunities for elementary school students. Schools can be an authoritative source for preventing obesity through physical education, but in order for it to be successful the physical education program needs to be all inclusive which means teacher training, assessment of the intensity and duration, and outside support (Murnan et al., 2006; Siedentop, 2009). With childhood obesity forcing schools to reevaluate their physical education program, the school of thought has shifted from offering a “traditional sports-based” program towards introducing children to "lifelong physical activities" or a “health-related” physical fitness and wellness based program. This conceptual framework was adopted from the 2006 School Health Policies and Programs Study (SHPPS) (Lee, Burgeson, Fulton & Spain, 2007). These seven enabling conditions can assist elementary schools in making this shift possible and
sustainable. Even though all of these conditions are necessary, each holds a sequential weight in the overall picture of quality and sustainability.


<table>
<thead>
<tr>
<th>Enabling Conditions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Support</td>
<td>The superintendent, the director of curriculum, the principal, and the school board understanding and backing the elementary physical education program; reinforcing the values and influence of the elementary physical education program within the overall academic curriculum.</td>
</tr>
<tr>
<td>Financial Support</td>
<td>The budget allotted for the elementary physical education program; grant and fundraising monies.</td>
</tr>
<tr>
<td>Content and Instruction</td>
<td>The progression of activities and skills taught using multiple methods of communication and practice opportunities.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Parties and groups of people knowledgeable and supportive of the elementary physical education program; faculty, staff, parents, community members.</td>
</tr>
<tr>
<td>Assessment and Accountability</td>
<td>Methods and measures used to evaluate student and teacher performance and the quality of the elementary physical education program.</td>
</tr>
<tr>
<td>Professional Preparation and Development</td>
<td>Continuing education and learning opportunities for the physical education teacher.</td>
</tr>
<tr>
<td>Adaptive Instruction</td>
<td>Set instructional time and methods for students with special needs and/or an IEP.</td>
</tr>
</tbody>
</table>

I used categories from the 2006 SHPPS study to conceptually frame my study along with policy instruments and reform mechanisms that contribute to sustainable program reform and implementation which are individually defined in this chapter. This framework does not include specific student physical activity and skill engagements time, nor does it include the rate of intensity of the specific student physical activity and skill engagements time. The reform
mechanisms help to more clearly explain either what enables a program to be that of high-quality or what has constrained a program in progressing to one of high-quality. As with any type of educational program change, there is a meticulous process that needs to be followed in order for the change to be successful. There are five phases: 1) innovation development - the new program is tested; 2) dissemination – availability of the innovation is communicated; 3) adoption – uptake of the program by the target audience; 4) implementation – the program is put into practice; 5) maintenance – sustained use of the innovation. The effect of any intervention, in this case implementing a high-quality elementary physical education program, depends not only on its effectiveness, but also on the extent of its implementation and sustainability.

First, physical education is not just the responsibility of the physical education specialist or even the classroom teacher. Elementary physical education needs to be a collaboration among administration and physical education teachers. Inadequate administrative support tends to lead to physical education teachers rejecting new knowledge and enhancing practices (Bulger & Housner, 2009; Lee, Burgeson, Fulton, & Spain, 2007; Story et al., 2009). The Department of Health and Human Services (2010) encourages schools to form a health and wellness council in which administrators, teachers, and representatives of the community collaborate to establish obesity prevention goals and implement the best possible physical education program and assessment tools. An exceptional elementary physical education program is supported by the administration and conducted by an elementary physical education teacher who sees the total spectrum and realizes the contribution that elementary physical education makes to the development of the child and to the total school program (Humphrey, 1994; Yetter, 2009).

The second enabling condition for a high-quality elementary physical education program is financial support. As with most everything, there is a price associated with quality education,
including standardized curriculums, supplies, technology, or teacher salary. The school district budget needs to recognize the need for appropriate, up to date equipment and material maintenance, facilities, curriculum content, as well as teacher compensation (Shaya, Flores, Gbarayor, & Wang, 2008).

The third enabling condition includes having schools collaborate with outside sources such as policymakers, communities, and parents. Doing so will help to combat childhood obesity and instilling lifelong fitness habits in students. Elementary physical education program development should not just include teachers and administrators, but also parents and community members (Humphrey, 1994).

The fourth enabling condition is having age and developmentally appropriate physical education content and instruction. The content needs to be taught in a progression in order for knowledge and motor learning retention to occur. An overall goal is for elementary students to develop adequate motor skills in a range of activities that then can be transferred later into sports, games, and fitness activities (Siedentop, 2009; Stork & Sanders, 2008; Yetter, 2009). Additionally, intensity of skills and activities should be considered. The goal is to have students engaged in moderate to vigorous activities for most of the class period. Content and instruction needs to be aligned with the National Standards for Physical Education and stimulate children to participate in physical activity outside of the school setting (Lee et al., 2007; NASPE, 2010; World Health Organization [WHO], 2005). Further, schools should mandate minimum standards for elementary physical education, holding the teacher as well as the student accountable for achieving a level of motor and fitness knowledge as well as performance (Speiser et al., 2005). The teacher to student ratio needs to be taken into consideration as well.
The fifth enabling condition is appropriate, authentic, ongoing student assessment, which is a necessity in order to build accountability around physical education, ensure student learning and a well-coordinated and properly sequenced program. The assessment should be applicable to each particular learning domain and focus on maintaining maximum activity time. Assessment must be seen as an educational process that examines student learning, not just the documentation of learning. Furthermore, assessment is needed to limit the marginalization of physical education (Henninger & Carlson, 2011). Rubrics and criteria checklists are used to assess the psychomotor domain, quizzes and tests are used to evaluate the cognitive domain, and fitness and skills tests are used to evaluate the fitness and proficiency components. The educational environment in the United States stresses accountability, achievement, and “highly qualified” in core, so-called, “academic subjects,” but physical education does not fall into this category (WHO, 2005; National Governors Association [NGA] Center for Best Practice, 2003). Experts have cited the No Child Left Behind Act of 2001 as the reason physical education has been eliminated from schools (Anderson & Butcher, 2006; NASPE, 2010; Story et al., 2009). As previously mentioned, standard assessment in elementary physical education does not exist. Each school is responsible for creating, implementing, and sustaining appropriate assessment. More often than not, accountability becomes an issue. Increased accountability can require additional resources and necessitate an improvement in quantity and quality (Bulger & Housner, 2009; Seidentop, 2009; Story, Kaphingst, & French, 2006). Hence, to implement and sustain appropriate student assessment, individual schools cannot do it alone. Assessment needs to come from the state level. States should develop objectives and expectations and ensure that each district and school is in compliance (Seidentop, 2009). In Pennsylvania, the Department of Education does not dictate student assessment; however, quality elementary physical education
programs take responsibility for consistently and appropriately assessing student progress and teaching objectives.

The sixth enabling condition is professional preparation and development. Physical education teachers that take on a proactive leadership role assist in the success of the physical education program (Mohnsen, 1999). Elementary physical education teachers need to be trained appropriately by a well-recognized and accredited institution. According to the Department of Health and Human Services (2010), there is a lack of qualified physical education teachers at the elementary level due partially to the fact that states are not requiring professional certification. If teacher candidates are held to high standards during their professional preparation years, that high-quality will transfer into the actual physical education setting. Education is constantly changing and new practices are always emerging. Physical education teachers should be encouraged and held responsible for building on their knowledge base by attending both on and off site workshops, conferences, etc. (Lee et al., 2006; USDHHS, 2010). The school and the administration need to recognize the importance of professional development and implement requirements. Seidentop (2009) states that in order for physical education teachers to meet national goals and sustain high-quality programs, they must be prepared with the appropriate knowledge and experiences.

The final and seventh enabling condition, according to Story et al. (2006), includes adaptive instruction. Most schools are required to meet the needs of students with long-term disabilities. But, to enable a successful and sustainable physical education program, students’ needs must be reflected in a 504 plan and/or Individualized Education Program (IEP). Typically, students with disabilities are to be mainstreamed into the regular physical education class. The
physical education program, the teacher, and the administration need to take this aspect into consideration.

Reform Mechanisms

The proposed framework lists conditions that could help ensure successful elementary physical education programs. However, implementation of any reform requires an understanding of how hard it is to achieve change. Many factors are involved in the implementation process that make change hard. These issues are part of the context in which a change occurs. Some of these include: the three pillars of how to exert change, accountability, fidelity, and inquiry which are shown in Figure 3.1 and defined below.

Figure 3.1 Kingdon’s Policy Soup: Elementary Physical Education Program Reform


There are various facets that program reform faces in order to be effectively and successfully implemented, but with conscious efforts and diligence, sustainable change can occur. First, program goals and objectives should be established to convey what students should know and be able to do. Second, for program change to occur and be successful, it needs to be
anchored in a realistic understanding of the school. The program needs to fit the needs of society and expansion of education (Kirst, 2007). This means the following reform mechanisms need to be considered:

*The Three Pillars of How to Exert Change*

The three pillars of how to exert change are regulative, normative, and cultural cognitive (Meyer, 1977; Scott, 1987). The regulative pillar is the most clear because it considers regulatory guidelines, procedures, rules, and laws. The normative pillar emphasizes values and norms within the organization. The cultural cognitive pillar draws on the social meanings towards action, understanding, and change. Implementing a program should not just be left to administration, considering teachers as well as students are necessary for sustainability. Teachers are typically the ones carrying out the program and students are the recipients of the program intended to improve learning. Most often replacing or changing teaching practices and patterns leads to frustration because an instant advantage is not the outcome of the efforts (McLaughlin, 1987).

*Accountability*

Accountability of change is the reform mechanism that suggests policy and practice must take into account not just the students and teachers, but the community context as well as the individuals outside the school system (Marsh, 2007). Elementary physical educators need to be held accountable for teaching students the necessary and appropriate movement and skill concepts. Furthermore, schools need to be held accountable for providing students with an environment that teaches how to live an active and healthy lifestyle. By considering accountability within physical education could lead to an improvement in the quality of teaching as well as the sustainability of the program within the school day (NASPE, 2010).
**Fidelity**

Fidelity needs to be addressed at the implementation stage. New adoptions in schools are often accompanied by concern over the fidelity of implementation. Fidelity also becomes an issue when looking at instructional reform and teacher response and implementation. The teacher feels obligated to carry out the set objectives, yet there is a call for change in instructional delivery and teaching methods from administration.

**Inquiry**

Inquiry requires the participation of not just teachers, but administration and community members in developing and maintaining appropriate school change. The link between student outcomes and school practices must be a point of inquiry in program change and implementation (McLaughlin & Mitra, 2003). Using inquiry as a mechanism to facilitate successful change shows that teachers need time for reflection, collaboration, and committed leadership.

The foundation for any effective program is formed from society and culture. Ideals and aspirations of the culture in which the school resides should be expressed in the program that is being taught. Not only should physical educators and administrators be involved in reform, but parents, and other teachers with knowledge in: subject, pedagogy, and curriculum design should be included in this active process (Marsh & Willis, 2007). Program reform demands multiple methods of investigations to uncover key issues relating to teachers, district administrators, and policymakers (Reys, Reys, Lapan, Holliday, & Wasman, 2003).

Drawing on the seven enabling conditions and four reform mechanisms, I examined the current elementary physical programs at three schools in order to better understand their quality and sustainability in an effort to position physical education as a preventative measure towards
childhood obesity. Chapter 4 discusses my research methods and further explains how this conceptual framework guided my research.
CHAPTER 4 METHODS

My first research question targeted understanding high-quality, and in these three cases, it went beyond curriculum and content. My second research question asked what enables or constrains these three programs to be of high-quality as well as be sustainable in a time of educational, financial crisis. The elementary physical education program as a whole was my center of focus for both of my research questions.

While reviewing the literature and building a case for my study, I did not come across any research that examined issues of quality and sustainability in elementary programs in Pennsylvania. Due to this fact I felt as though a qualitative, comparative case study research design would best help me understand the “how” and “what is it” as well as contribute initial findings to the research world.

In order to best address my research questions, I used a qualitative, comparative case study research design. I chose this design because of my questions “how” and “what is it” rather than testing a preset condition. The objective of qualitative research is to better understand and interpret the world in which humans exist and interact. In order to make valid and reliable interpretations, the researcher must gain access to multiple perspectives about the participants and their environment over a period of time (Glesne, 2006). Qualitative research consists of a set of interpretive, material practices that make the world visible (Denzin & Lincoln, 1994). In addition, qualitative inquiry looks for patterns among the data collected. A comparative case study is a set of multiple case studies of multiple research entities for the purpose of cross-unit comparison.

Using case study for my research design is applicable for two reasons: First, little research exists regarding critical analysis of sustainable, high-quality, elementary physical
education programs, suggesting the efficacy of a case study design (Yin, 1994). Conducting a case study using these three particular western Pennsylvania elementary schools, ranging from large to small student population and high to low socioeconomic status, provided an initial set of findings about the conditions that influence the sustainability and quality of an elementary physical education program. Case study research has the capability of uncovering causal mechanisms by identifying influences and providing rich detail. Unlike ethnography where time at the research site is of such great importance, Yin (2003) says that by using proper methodology, a credible, descriptive case study can emerge from limited time at the site. I kept this in mind in order to maximize what I can learn in the period of time I have available for my study. I spent an entire school day at each site, from 7:30am-3:30pm.

Sample Selection

The purpose of my study was to better understand how elementary schools in Pennsylvania have implemented and sustained a high-quality physical education program that also serves as a means of obesity prevention. My conceptual framework drove my sample selection. Pennsylvania reports a high percentage of obese kindergarten through twelfth grade students and reports a decrease in physical education. Therefore, it was my goal to sample schools that represented a snapshot of success that helped me to answer my research questions. I used purposeful sampling for my study. Purposeful sampling is very common among qualitative research because it seeks information-rich cases where participants are chosen according to predetermined criteria that is relevant to the study’s research questions and can be studied in depth (Patton, 1990). I contacted the Pennsylvania State Association for Health, Physical Education, Recreation, and Dance (PSAHPERD) and inquired about elementary physical education programs.
education programs that are of high-quality with an emphasis on life-long fitness and obesity prevention. PSAHPERD is the non-profit, governing body for the promotion of quality health and physical education programs as well as professional development in Pennsylvania. PSAHPERD works closely with the Pennsylvania Department of Education and NASPE. PSAHPERD determines high-quality elementary physical education programs in Pennsylvania using NASPE’s Quality Physical Education (QPE) criteria. They recommended eight programs across the state. PSAHPERD provided me with the email address of each health and physical education department head within each school district. I sent out a very general email (See Appendix A) to initially see which schools would possibly be interested in my study before I moved on even further with my research. Out of the eight programs recommended, seven were welcoming of my research intentions. Three of the seven schools were located in the eastern part of the state, while four were located in the western part of the state. I felt as though in order to build a reliable, qualitative, comparative case study, I needed to study three schools that were geographically close. The three schools I chose were within a fifty-mile radius of the city of Pittsburgh. Additionally all three schools fall under the Western Pennsylvania Interscholastic Athletic League, which is a committee of educators that provide eligibility rules and regulations for interscholastic sports and group schools according to student population to insure a level playing field. Elementary A is denoted as an AAAA school district. Elementary B is denoted as an AAA school district. Elementary C is denoted as an A school district.

Since I used purposeful sampling, I wanted programs that would be critical to my understanding of high-quality, sustainability, and impactful. These were important requirements because as the literature states there are definitions as to what high-quality physical education should be, but what does it actually look like in an actual school setting. Keeping Patton’s
(1990) criteria in mind, “if it happens here it will happen anywhere,” or the opposite, “if it does not happen here, it won’t happen anywhere” (p. 174), I kept my sample at three programs, but each program had different socioeconomic conditions as well as school and political atmospheres. After reviewing these seven programs, I determined that I was going to only use schools in the western half of the state, which were within a fifty-mile radius of the city of Pittsburgh. By doing this, allowed me to create a more focused understanding of my “how” and “what is it” because geographically the comparison was more narrow.

My sample consisted of three elementary schools in western Pennsylvania, each representing a different size (large district, medium district, small district) category as well as socioeconomic status category (high SES, moderate SES, low SES). The sample was based on two levels: state level to district level, and district level to school level, which is described below in this paragraph. Furthermore, the schools have implemented a sustainable, high-quality, obesity preventative, elementary physical education program. For the purpose of confidentiality, the three elementary physical education programs are referred to as Elementary A, Elementary B, and Elementary C. These three schools were chosen using the following school district criteria:

<table>
<thead>
<tr>
<th>School District</th>
<th>Total K-12 Student Population</th>
<th>Total Population</th>
<th>District Size</th>
<th>Poverty % of Total Population</th>
<th>Median Household Income ($)</th>
<th>% of Students on Free/reduced Lunch</th>
<th>SES Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8,105</td>
<td>50,023</td>
<td>Large</td>
<td>3.15</td>
<td>89,094</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>B</td>
<td>2,721</td>
<td>18,140</td>
<td>Medium</td>
<td>10.08</td>
<td>48,843</td>
<td>24</td>
<td>Medium</td>
</tr>
<tr>
<td>C</td>
<td>1,516</td>
<td>10,850</td>
<td>Small</td>
<td>17.50</td>
<td>31,484</td>
<td>30</td>
<td>Low</td>
</tr>
</tbody>
</table>


I submitted my research request to The Pennsylvania State University Institutional Review Board and it was approved in September 2011. Immediately after being awarded approval I followed a
similar pattern as to how I chose the three schools. PSAHPERD recommended the three school districts I chose for my study. I then made contact again with the health and physical education department heads within the three school districts to confirm that I would like to use their elementary physical education programs in my study and that I have been awarded IRB approval. I asked the health and physical education department heads at Elementary A and Elementary B for a recommendation as to which elementary school and teacher to contact for my study because each of the two districts had multiple elementary schools and multiple physical education teachers. Elementary C only had one elementary school. After the health and physical education department heads provided me the name of the school and the teacher, I emailed the building principals at Elementary A, Elementary B, and Elementary C a letter (See Appendix A). Additionally, all three assistant superintendents responded back to my email saying that they too were interested in participating in my study. After receiving that response I placed a phone call to each assistant superintendent to talk more in-depth about my research questions, resource requests, and timeline. After speaking directly to each assistant superintendent, they asked me to submit a copy of my Institutional Review Board (IRB) Approval (See Appendix B) so it could be reviewed by the school district administration. All three assistant superintendents granted me access to study their elementary physical education program: observe and conduct interviews.

Participant Selection and Recruitment

The study involved a total of 19 participants across 3 elementary schools. I conducted all, but one of the interviews in-person and on-site. The director of curriculum at Elementary B was not available to meet in-person and on-site the week that I was in western Pennsylvania.
This particular interview was conducted over the phone in my office.

<table>
<thead>
<tr>
<th>Participant Role</th>
<th>Elementary A</th>
<th>Elementary B</th>
<th>Elementary C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education Teacher</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Principal</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Director of Curriculum</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>K-2 Classroom Teacher</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3-5 Classroom Teacher</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Parent</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

The Institutional Review Board (IRB) modified my participant recruitment and design. Initially I planned to use one recruitment letter for all participants, but IRB requested that I create individual recruitment letters for each participant category (See Appendix A). My initial classroom observation checklist was too vague according to IRB, so therefore I created a more detailed checklist that described specifically what I would be observing according to each category (See Appendix C).

Data Collection

I am studying the enabling and constraining conditions that are associated with a high-quality, sustainable, and obesity preventative elementary physical education program in western Pennsylvania. Case study allows the researchers to design a study somewhat loosely in terms of research questions, time, and data collection. According to Stake (1995), case study is not a methodological choice, but a choice of what is to be studied. Data is gathered through participant observation and in-depth interviewing. In order to best validate my findings and crosscheck my findings, I used four sources for my data collection: 1) semi-structured interviews 2) classroom observation 3) the elementary physical education curriculum 4) school district websites. The data I collected while in the field, combined with follow-up conversations and
emails with my participants along with off-site research has led me to be able to create a comparative case study.

**Protocol**

In October 2011, data for my study was collected from four sources: semi-structured interviews, classroom observations, the school district’s published elementary physical education curriculum, and the school district’s website. I conducted 19 interviews, lasting between 20-30 minutes each. I reviewed the informed consent (Appendix D) with each participant and answered any questions they had pertaining to my study. I also informed the participants that the name of the school and their name would remain confidential. Each interview was assigned a letter and a number in order to differentiate among school and participant.

**Table 4.3 Participant Letter and Numerical Code**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Elementary A</th>
<th>Elementary B</th>
<th>Elementary C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education Teacher</td>
<td>A1</td>
<td>B1</td>
<td>C1-M; C1-F</td>
</tr>
<tr>
<td>Principal</td>
<td>A2</td>
<td>B2</td>
<td>C2</td>
</tr>
<tr>
<td>Director of Curriculum</td>
<td>A3</td>
<td>B3</td>
<td>C3</td>
</tr>
<tr>
<td>K-2 Classroom Teacher</td>
<td>A4-1</td>
<td>B4-1</td>
<td>C4-1</td>
</tr>
<tr>
<td>3-5 Classroom Teacher</td>
<td>A4-2</td>
<td>B4-2</td>
<td>C4-2</td>
</tr>
<tr>
<td>Parent</td>
<td>A5</td>
<td>B5</td>
<td>C5</td>
</tr>
</tbody>
</table>

All 19 participants signed the consent form and agreed to have the interview digitally recorded and transcribed.

**Semi-structured Interviews**

My main source for my data collection was semi-structured interviews. I spent an entire day at each school in October 2011 and during this time I conducted interviews with a total of 19 participants across 3 elementary schools. I conducted all, but one of the interviews in-person and on-site. The interviews with the physical education teachers were conducted in the gymnasium.
office. The interviews with the directors of curriculum and the principals were conducted in their respective offices. The interviews with the classroom teachers were conducted in their respective classrooms. The interviews with the parents were conducted in either the library or main office conference room. The director of curriculum at Elementary B was not available to meet in-person and on-site the week that I was in western Pennsylvania. This particular interview was conducted over the phone in my office. I created an Interview Protocol (See Appendix F) that guided my interviews. I initially asked three open-ended questions to each participant and then if further explanation or detail was needed, I asked more focused questions. The interviews lasted between 20-30 minutes. I recorded all interviews on an iPod and then later transcribed them.

I used a semi-structured interview that I developed based on my research questions and conceptual framework. Using a semi-structured interview allowed for all participants to elicit a range of responses regarding their understanding of the existing elementary physical education program and conditions. The three open-ended questions target the overarching idea behind my conceptual framework as to what constitutes a high-quality elementary physical education program. The probed and focused questions are linked to the possible seven enabling conditions defined in my conceptual framework: 1) Administration Support 2) Financial Support 3) Collaboration 4) Content and Instruction 5) Assessment and Accountability 6) Professional Preparation and Development 7) Adaptive Instruction (See Appendix E).

To initially start the interview, all participants were asked the same introductory question: Tell me about your elementary physical education program… After listening to each participant talk about their knowledge of their elementary physical education program, I prompted them to expand further on the following aspects: 1) What enables their school to provide a strong
elementary physical education program? 2) What constraints does their program and/or school face when it comes to providing a strong elementary physical education program? 3) What role do they play in their elementary physical education program? If the participant did not provide enough detail in their answers to the questions, I then probed them for further detail. The focused questioned asked the participant to divulge more detail regarding change within the last five years; involvement; perception on childhood obesity; administrative support; financial support; content and instruction; adaptive instruction; assessment and accountability; professional preparation and development; and collaboration (See Appendix E). My interview protocol was not revised once I began to conduct interviews. As stated above, depending on the amount of detail and the clarity of the response dictated if and how I used my focused questions. All interviews were recorded on an iPod, transferred into iTunes, and transcribed verbatim by one individual who was compensated monetarily. The transcription of all interviews resulted in approximately 80 typed pages. I also hand-wrote points of emphasis or responses that I felt were strong themes aligning with my conceptual framework. Additional data sources for this study included classroom observations, copies of the physical education curriculum, and school district websites.

Elementary A

I interviewed six participants at Elementary A on October 26, 2011. The interviews for the director of curriculum, the principal, and the physical education teacher all were conducted in their respected office. The director of curriculum’s interview was approximately twenty-seven minutes, the principal’s interview was approximately twenty minutes, and the physical education teacher’s interview was approximately thirty minutes. I interviewed both classroom teachers in
their classroom, each lasting approximately twenty-three minutes. I conducted the interview with the parent in the library, which was approximately twenty-two minutes.

**Elementary B**

I interviewed six participants at Elementary B on October 27, 2011. The interviews for the physical education teacher and the parent were conducted in the main office conference room. The physical education teacher’s interview was approximately thirty minutes. The parent interview was approximately twenty minutes. I interviewed both classroom teachers in their classroom, each lasting approximately twenty-two minutes. The interview with the principal took place in her office and was approximately twenty-two minutes. I conducted the interview with the director of curriculum over the phone in my on-campus office. This interview was approximately twenty-four minutes.

**Elementary C**

I interviewed seven participants at Elementary C on October 28, 2011. All seven interviews were conducted in the main office conference room. The two physical education teachers’ interviews were each approximately thirty-minutes. The director of curriculum and the principal’s interviews were approximately twenty-eight minutes. The two classroom teachers’ interviews were approximately twenty-one minutes. The parent’s interview was approximately twenty-minutes.

Even though I gained a great sense of understanding regarding each elementary physical education program, I needed to explore other data sources that would further assist in answering my research questions and strengthen my findings. My three other data sources were the written version of the elementary physical curriculum, classroom observation, and the school district website.
After interviewing the director of curriculum for each school I requested a copy of their physical education curriculum. Each director of curriculum agreed to my request and emailed me an electronic version. Each curriculum contains a curriculum map as well as objectives aligned with Pennsylvania State Physical Education Standards for grade kindergarten through fifth. I developed a tool to analyze each curriculum based off of the Physical Education Analysis Tool (PECAT) developed by the Center for Disease Control (USDHHS, 2010) (See Appendix F). A second written document that I used was the school district’s physical education homepage. I was able to link to the elementary school’s website and then to the physical education homepage. Within the physical education homepage various links could be found from a semester scope and sequence to pictures and videos of students participating in activities.

I spent an entire school day, 7:30am-3:30pm, at each site in order to conduct interviews as well as observe two full physical education classes, one primary level class (K-2) and one secondary level class (3-5). I developed a classroom observation checklist that contained five main categories: 1) objectives, 2) equipment/supplies, 3) instant activity, 4) lesson content and development, and 5) time. Under each main category were between two and five sub-categories. In addition to using the checklist to focus my observation, I recorded detailed field notes about the culture and climate of the school and the physical education facilities, the dynamics of the teacher as well as the students, and the overall learning environment of physical education classes. The intention of the observations was to see practice put into play. I was looking to compare and contrast what I heard through interviews and what I read in the curriculum to what I saw take place in a class. Furthermore, observation served as mechanism for me to place myself in the field and paint a more vivid picture of “how” and “what is it”.
My second source for my data collection was classroom observations. I conducted classroom observations at each elementary school. I was at each school for an entire day in October 2011. I created a Classroom Observation Checklist (See Appendix C) that consisted of five major categories: 1) Lesson Objectives 2) Equipment/Supplies 3) Instant Activity 4) Lesson Content Development 5) Time that I used to guide my observations. The purpose for my classroom observations were to see how answers to my interview questions transferred into actual practice. My role was that of a participant observer because not only was I consciously observing what I was seeing taking place in the class, but also I was constantly analyzing my observations for meaning and evidence of personal bias. I observed two physical education classes at each school – one primary class and one secondary class. Each class was between 40-45 minutes. I did not talk to the teacher or the students during this observation period. Additionally, I took note of the layout and organization of the gymnasium and/or outdoor setting as well as student behavior and teacher interaction. My observations were recorded on my iPad and then transferred to my computer.

The Elementary Physical Education Curriculum

My third source of data was the elementary physical education curriculum. The director of curriculum at each school provided me an electronic PDF copy of their most current elementary physical education curriculum. I received all curriculums electronically within three days after I conducted the interviews. The curriculums are housed on a secure school district server and available to all school district faculty. The curriculum scope and sequence is posted on each school’s elementary physical education website for public viewing. I designed a
Curriculum Analysis Tool based off of the Physical Education Analysis Tool (PECAT) (See Appendix F). I closely read over the curriculum, taking note of the level of alignment across standards, the accuracy of the curriculum, the acceptability of the curriculum, and the feasibility of the curriculum. I electronically recorded these results into the Curriculum Analysis Tool.

School District Websites

My fourth source of data came from each school’s website. The websites served as a means to extract further detail regarding school district make-up and demographics. The websites also provided information regarding the physical education mission statement, yearly objectives, and unit layout. The data I gathered from the websites were included in the description of each school district and their elementary physical education program.

Validity

Research validity is an issue that must constantly be considered in qualitative research. By following procedures such as persistent observation, reflection of the data collected, negative case analysis, personal subjectivity to the research, and multiple data collection sites, results of the research will gain a level of trustworthiness. Furthermore, using multiple methods to gather data allows for triangulation, which increases the credibility and validity of the results (Cresswell, 1998; Lincoln & Guba, 1985). Observation and analysis of the curriculum was necessary in order to thoroughly answer my two research questions: What does a high-quality elementary physical education program look like (i.e., content, curriculum, etc.)? What are the enabling and constraining conditions? Observation allowed me to visually see the possible enabling or constraining conditions in authentic practice. It assisted in telling my research story,
pinpointing specific examples and capturing the high-quality, sustainable elementary physical education experience among the three different schools. Furthermore, observation helped build a sense of trust between myself, the researcher, and the participants that I interviewed. Curriculum analysis allowed me to connect what I observed to a formal outline.

**Researcher Bias**

In qualitative research, there is a level of bias that needs to be controlled in order for the results to retain validity. According to Denzin (1989), for research to be of value it must go beyond the researcher and the researcher’s situation. In qualitative research, the researcher is an integral part of the process and it is believed that the interaction between the researcher and the researched is how new knowledge surrounding the studied topic is created. I served as the study instrument, which means I personally collected the data for this study. As the researcher, I paid particular attention to my language, my behavior in the field, and my anxiety. Seeing that my research examines physical education and coming from an established physical education background, I had to control for my biases. I was aware of my values and beliefs regarding current physical education practices and having this awareness, I focused my data collection methods to be as objective as possible.

I have always been intrigued with physical education, as a K-12 student to a professional in the field. When I started thinking about my research path in 2009, I was currently teaching elementary physical education and always trying to improve upon my lesson content and objectives as well as my teaching style. I have always believed that physical education is a key component to an elementary student’s overall educational experience. Shimon (2011) advocates that there is indeed a necessity for elementary physical education within the overall educational
process. Learning how to perform locomotor movements, manipulative skills, and stability skills at the elementary level are just as important as learning how to add, read, and write.

As the increase in childhood obesity started to become a regular headline among the media, the decrease of physical education started to become a highly debated topic within the education world. I feared for my job as an elementary physical education teacher and that is what sparked me to investigate how can physical education be sustained and how can its quality be improved to possibly impact childhood obesity? I started to read more in-depth about the debate surrounding physical education to gain a better understanding of what schools and policymakers are saying and doing, in particular in Pennsylvania. As a result of my reading, I developed my two research questions and created a conceptual framework that would help me better understand the situation regarding elementary physical education in Pennsylvania. Once I developed my conceptual framework, my research questions emerged with the intention of understanding “how” and “what is it”?

Data Analysis

The physical education program in an elementary school acted as the unit of analysis. I used an evaluative framework that guided my thinking regarding my research questions. I adopted a case study design in order to see how these three programs aligned with this framework. As I analyzed my data, I revised this evaluative framework. The revisions I made to the framework allowed for a more useful, feasible, and accurate analysis of my data. The research that I have reviewed consists of gender or grade specific longitudinal studies, not particularly the elementary physical education program as a whole.
After reading over the literature as well as being a former elementary physical education teacher, I determined that there were seven enabling conditions that were driving my research questions and curiosity surrounding elementary physical education that needed to be further investigated. Second, while the literature has provided suggestions as to what needs to be done in order to create a high-quality elementary physical education program as well as how program change should be successfully implemented, close analysis of possible enabling conditions is needed in order to generate a greater understanding of the direction that elementary physical education programs must go in order to be a major force in the prevention and reduction of childhood obesity. Using a three school, case study design allowed me to strengthen and revise my initial evaluative framework and support it with my reported data concerning elementary physical education programs.

*Pattern Matching*

Three data analysis techniques were used in the study: pattern matching, explanation building, and cross case synthesis. By using three data analysis techniques, will allow me to examine data that both aligns or does not align with my conceptual framework and moreover look for data that reveals other findings beyond my conceptual framework. According to Yin (2008), pattern matching is one of the most desirable data analysis strategies for case study research and can assist in the research’s validity. Pattern matching involves predicting a pattern of outcomes based on theoretical propositions in order to explain what you, the researcher, expects to find. For my study, I used this technique as my main coding strategy to link my data to my conceptual framework. My conceptual framework included a hierarchal of thematic categories that served as a means of the initial organization of my data:

- administrative support
• financial support
• content and instruction
• assessment and accountability
• professional preparation and development
• collaboration
• adaptive instruction
• reform mechanisms that contribute to sustainable program reform and implementation

Pattern matching was the main coding strategy I used to answer both of my research questions:

*What does a high-quality elementary physical education program look like? What are the enabling and constraining conditions?*

*Explanation Building*

Explanation building is a form of pattern matching that attempts to build an explanation during data collection and analysis. It leads to starting a cross case analysis, which looks beyond each case one by one. After I coded my data and found patterns within each case, I compared those patterns to my conceptual framework and initial thinking as to what I expected to find. Explanation building started to form when I coded my data according to interviewees and then made the comparison across all three schools (See Appendix G) I frequently referred back to my research questions when making these comparisons as well as the initial pattern matching according to each school. The results of explanation building formed my narrative about each school and guided my discussion section.

*Cross Case Synthesis*

Explanation building leads into cross case synthesis. I used cross case synthesis because my sample consisted of three separate cases. Cross case synthesis analyzes each case
individually and then synthesizes the data across all individual cases to strengthen the case of the particular study (Yin, 2008). After analyzing each school individually based on my thematic categories (See Appendix G) and determining the overarching themes and an explanation associated with the theme according to school, I then analyzed my data across all schools as well as across all interviewees (See Appendix G). By using cross case synthesis I was able to form stronger arguments about how my data supported my research questions and aligned with my conceptual framework.

Before starting my data analysis, I went in initially thinking that the strongest enabling conditions that could contribute to the quality and sustainability of an elementary physical education program would be administrative support, financial support, and content and instruction. I did find that these three conditions do contribute to the quality and sustainability of a program, but not necessarily to the degree I initially thought. Besides these three conditions contributing to the quality and sustainability of a program, I found that collaboration, professional development, and grant money were also strong enabling conditions. After analyzing my data using a hierarchical coding theme and the three techniques described above, I did reveal some disconfirming results that led to a revision of my conceptual framework. For example, it was the physical education teacher that was the strongest enabling condition, not administrative support. Collaboration and professional preparation and development were found to be a strong enabling condition which was not in my initial thinking. Collaboration was a strong enabling condition in two out of the three programs. Adaptive instruction played a limited role in the quality and sustainability of each of the programs. Furthermore, it was revealed that curriculum does necessarily matter when examining the quality and sustainability of a program. A program can be of high quality and sustainable without a strong curriculum.
Due to the small scale of my study, I coded the interviews by hand. I printed off the transcribed interviews and first organized them according to the elementary school. I initially read over all of the interviews before determining codes and beginning to code. For my first round of coding I based my codes off my conceptual framework. After gaining a sense as to what other common themes emerged and coincided based off of my conceptual framework, I determined that the following themes existed and were pertinent to answering my research questions.

- Understanding of the elementary physical education program
- The role you play
- Changes in your role
- Changes in the program
- Perception on decreasing childhood obesity

I assigned a specific color to each theme. I kept the interviews organized by elementary school for the first round of coding and I only assigned one code (color) to a theme. The second round of coding entailed keeping the interviews organized according to the school, but assigned multiple codes (colors) to themes when determined. After the second round of coding I did a preliminary analysis of themes. I created individual tables for each code. I assigned a color to each participant.

<table>
<thead>
<tr>
<th>Physical Education Teacher</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Blue</td>
</tr>
<tr>
<td>Director of Curriculum</td>
<td>Green</td>
</tr>
<tr>
<td>Classroom Teachers</td>
<td>Orange</td>
</tr>
<tr>
<td>Parent</td>
<td>Purple</td>
</tr>
</tbody>
</table>
I listed all words/phrases from all participants of that particular school according to that code in the table. I then looked for similar responses among participants for that specific code. I condensed the table so that the word/phrase only appears once in the table. I took note of how many participants offered the same response. I looked for what themes appeared to be most consistent throughout all participants' responses categorized by school; what responses were repetitive among the specific question asked or prompt given; and what differences appeared. From this analysis I was able to determine the most common overarching themes for that particular school and physical education program. The common themes were: 1) the physical education teacher: content of the curriculum, teacher instruction 2) administrative support 3) financial support 4) collaboration.

I printed out new copies of the transcribed interviews and I organized the interviews according to participant: 4 physical education teacher, 3 principles, 3 directors of curriculum, 6 classroom teachers, and 3 parents. I repeated the same reading and coding process for this round of analysis. Very similar to my first analysis, I looked for what themes appeared to be most consistent throughout all participants' responses; what responses were repetitive among the specific question asked or prompt given; and what differences appeared among the responses categorized by participant. I created tables designated by theme. Each table had three columns labeled: Elementary A, Elementary B, and Elementary C which allowed me to visually compare responses across all three schools. From this analysis I was able to determine the most common overarching themes for that particular set of participants.

I continued to cycle through all my data looking for evidence that aligned with my framework, looking for themes that defend my initial thinking, looking for new themes that could expand my thinking, and revising and condensing my themes to present the strongest case
of my findings. I did key informant and participant checks to confirm what the study participant stated in their interviews. After transcribing the interviews some information was unclear. When this was found to be the case, I first emailed the participant asking him or her for further clarification on the statement. I provided the exact text of the statement and the question or prompt in the email. If it was still unclear to me as to what they were saying or alluding to, I called them over the phone and took hand-written notes. Within the time frame that I collected the data and analyzed the data, I had face-to-face encounters with five of the participants at physical education conventions. At that time I was able to ask them for further clarification on certain statements. By cycling through the data in multiple ways and crosschecking participant statements has added validity to this case study.

Limitations

This study was limited to critically analyzing and discovering enabling conditions that contribute to high-quality, sustainable, and possibly obesity preventative elementary physical education programs in three public schools in Pennsylvania. This study did not specifically measure student engagement in physical education class, nor did this study measure pre and post obesity percentages in students. This study’s richness was limited to the cooperation of study participants and time. The results of this study are intended to help the three schools that are studied assess their physical education program, not revamp it. The intention of my study is to understand what enabled these three programs to be that of high-quality and sustainable as well as provoke more research in the field of elementary physical education program reform and policy considerations.
CHAPTER 5 ELEMENTARY A

I heard electrifying chatter in the hallway and I knew the fourth grade class would be entering the gymnasium at any moment. All students were immediately engaged in the Instant Activity – Guard the Cookie Jar. The physical education teacher did not have to give any verbal directions; the students knew exactly how to play the game. They were running around with excitement trying to steal each others’ cookies (bean bags) from the cookie jars (polyspots). After about two minutes of expounding all the immediate pent up energy from sitting in the classroom, the physical education teacher blew the whistle and the students ran to one of three “Triple Threat” cross-fit stations: body rows, squats, star jumps. The stations were already set-up before the students entered the gym, with written directions posted on the wall. The rule of thumb is “do as many reps as you can in a minute”. The music was pumping and at the change of a song was the signal for the students to rotate to the next station. Everyone’s heart rate was raised and a bead or two of sweat was on their brow. The music stopped and the physical education teacher enthusiastically asked, “Is everybody warmed up for mountain biking?” The students loudly replied back in unison, yes, and they ran outside with smiles on their face!

Elementary School A was the first site I visited and conducted interviews. The physical education program at this school is not only comprehensive, but also impressive. The program is highly supported, teaches to all three learning domains, and aligns with a lifetime fitness and skills-based model. Additionally the program thrives on the physical education teacher’s energy to be innovative and creative when it comes to teaching style, lesson delivery, and transfer of knowledge and skills.

The school district is located north of Pittsburgh, PA and is the largest suburban school district in its respective county. The district serves four municipalities and spans over 48 square
miles. Most of the district is suburban-residential and has a solid tax base. The median household income is $89,094. It has a total population of approximately 50,023 and a K-12 student population of 8,105. The district employs 1,064 faculty, staff, and administrators. The operating budget for the 2011-2012 school year is $120,159,253 with a per pupil expenditure of $14,787 (school district website, 2012).

Elementary A is one of the twelve schools in the district and one of the seven elementary schools. It has the most diverse student population out of all seven elementary schools. A total of 368 students are housed in this particular elementary school. As I took my first step into the door, it immediately took me back to my elementary days. I walked into the office to sign in and the secretary was extremely welcoming and pleasant. Just from that first step and introduction with the first person I came in contact with, I could sense that the culture of the school was that of a rich, vibrant, and creative learning environment. As I sat waiting to meet the physical education teacher, three young students said good morning and asked who I was. I replied, “I am a teacher from Penn State.” One of the young boys then said, “I love Penn State football!”.

After this short engagement with these three students, the physical education teacher walked in and introduced himself. He was dressed very professionally considering his teaching role: black warm-up pants, a yellow collard shirt, and this badge around his neck. I followed him out of the office and down stairs towards the gymnasium. As we walked through the hallways, numerous students said good morning to him and excitedly asked what they would be doing in P.E. class today. He replied back, “Fitness stations and we may go outside and ride bikes.”

The gymnasium is located on the lower level of the school. The size of the entire gymnasium is 96’x59’, but a collapsible wall divides the gymnasium in half and only one half is used for physical education. The approximate size of the physical education half is 48’x30’.
The gym floor is made out of a firm rubber material with modified basketball lines painted on it. There are three basketball hoops suspended from the ceiling. Posters of the human body and its different systems are hanging on one of the side walls of the gym. Also along this wall is a modified climbing wall, which is used during the Outdoor Adventure unit. Colorful locomotor movement patterns and cues are posted on one of the side walls in addition to motivational physical education and physical activity sayings. Also hanging on this wall are pull-up bars with TRX suspension training bands attached to them. Posters showing the harmful effects of tobacco use and advocating Tobacco Awareness month are hanging on the back wall. Physical education class rules and desists are posted on the side of the entrance way as well as above the entranceway. A large chart displaying the Golden Sneaker Award for exemplary student behavior and participation is posted to the left of the door.

The physical education teacher at Elementary A is the only physical education teacher in the school. He has been teaching physical education for 10.5 years and holds a Master’s Degree in Exercise and Sport Science. He teaches an average of five, 45-minute classes a day. On average students in K-5 participate in physical education once a week for 45-minutes. On Mondays students in grades 1-5 receive an additional physical education class for an hour every three weeks. There are approximately 24 students in each class and each year that average number has increased. The yearly physical education program budget for Elementary A is $250 that comes directly from the building principal.

Program Content

The program content aligns with a lifelong fitness and skills model as well as the NASPE standards. Due to the program changing its content to align with this model has allowed for
students to be taught a variety of skills that can be applied to multiple physical activities both in and outside of physical education class time. This change in the program content has also impacted the amount of time a student is engaged in physical activity throughout the day. When participants at Elementary A were asked to tell me about their physical education program, the responses included a list of physical activities, fitness concepts, and adjectives describing the program content. All participants mentioned that the program provided students choices, and was not just sports-oriented. The program incorporates fitness, wellness, and health concepts. Instruction takes into consideration the whole-child, which means each student deserves to be healthy, safe, engaged, supported, and challenged (wholechildeducation.org, 2012). While traditional sports will always have a role in a physical education program, the focus on fitness principles, lifetime physical activities, integration of health concepts, and attention to overall wellness should receive more emphasis. Elementary A’s Physical Education Curriculum stressed the importance of delivering a sequential and comprehensive physical education curriculum that meets the needs of all students by offering a full range of moderate to vigorous activities as well as cross-curricular and extracurricular activities. The mission statement also stressed the importance of providing students with the knowledge and skills to value and apply physical activity and its benefits for a lifetime.

Brain stimulation activities combine cognitive objectives with the psychomotor objectives, which can assist in the transfer of skills beyond physical education time. The physical education teacher, the principal, and the parent mentioned the incorporation of brain stimulation activities, which had just recently been included into the physical education program to better incorporate higher-level thinking skills. Young students need simple, hands-on experiences for their brains to develop such as rolling a ball on the floor or turning a page in a book. These fine motor skills
and basic locomotor movements are learned best when paired with cognitive tasks or real-life associations. The parent discussed how these brain simulation stimulation activities have been integrated into the physical education program (Interview, October 26, 2011):

…brain stimulation activities and brain breaks are part of the program. Exercise or physical activity should not be thought of as separate, but rather something that when embedded into a student’s lifestyle they are making better choices; their brain is engaged.

It all fits together in a more holistic way when it comes to physical activity and fitness. A program that assists in making the connection between the psychomotor domain and the cognitive domain better emphasizes the value of physical activity and its role in leading a healthy lifestyle. Furthermore, a program that uses brain breaks and brain stimulation activities is one that goes beyond the gymnasium and branches out into classrooms as well. This is a curricular example as to how this program has formed collaborative relationships within the school.

On the other hand, the director of curriculum offered the least about specific details regarding the program and its content, but went into great detail about enabling conditions, which is discussed in the next section. The director of curriculum’s responses were general adjectives describing the program such as “choices, exposure, variety, not just sports” (Interview, October 26, 2011):

We view our program as a K-12 program. We have unification from leadership in the elementary to the secondary, so our students feel as though they are connected to a greater program. The program teaches lifetime activities which build confidence to make good choices. Students in grades K-2 will be introduced to decision-making skills, but also integrating as much play as possible.”

The fact that the director of curriculum was unable to discuss specific program and curricular
content is a concern. The role of this administrative position is to understand and oversee curriculum changes, revisions, and implementation, yet limited knowledge was expressed regarding the elementary physical education program. The director of curriculum did express that she supported physical education, which shows that there is a disconnect between her support and her understanding. This raises the concern as to how program changes occur and if they are effectively implemented.

The physical education program focuses on six content areas: Adventure Education, Individual Activities, Aerobic Fitness, Muscular Fitness, Team Sports, and Creative Movement. These six content areas are diverse in the skills and activities they emphasize as well as the generic level of skill proficiency that fits the student. These content areas were established in 2010 when the curriculum was developed and then revised even further in 2011. The most common content area discussed among all participants was Adventure Education, and in particular the mountain biking and outdoor adventure units. Both of these units extend beyond traditional physical education concepts and skills. The incorporation of such units introduces students to adventure activities within an educational setting, but ultimately the goal is for the students to incorporate the skill in an outside recreational setting. These units create physically and emotionally safe environments that allow for transformational growth and learning beyond traditional sports and exercise. Both of these units are driven by the physical education teacher’s enthusiasm about outdoor adventure as well as grant money. The mountain biking unit was just recently adopted into the program. The mountain bikes were issued through a grant written by the physical education teacher. The objectives of the unit are to teach fourth and fifth grade students how to ride a bike, understand that biking is a moderate to vigorous activity that improves aerobic capacity, and create riding patterns both on and off road.
Changes in the Program

Elementary A’s program has changed over the past five years and focuses more on fitness and lifelong activities than it used to. This new focus is similar to how the elementary physical education programs at Elementary A and Elementary B have changed. When asked about changes in the program over the past five years, the responses paralleled the responses to details about the program content. The physical education teacher, the principal, the classroom teachers, and the parent stated that the biggest change was the incorporation of more fitness-oriented activities. These are activities that address all four components of fitness: aerobic capacity, muscular strength and endurance, flexibility, and body composition. Additionally these four participants noted that they are aware of the increased active engagement time per student during a physical education class. The nature of the fitness activities, as well as introduction to lifelong activities has allowed engagement time to increase. The focus of these two categories of activities is on individual progress and maximum practice opportunity. The physical education teacher shared that his program has changed since the time he started teaching and it continues to change because health is a constantly evolving field (Interview, October 26, 2011):

It is a dynamic program which integrated health topics of fitness in which I am working on right now…this is being done district-wide now. We got together so all of us [physical education teachers] now we are involved and we are doing this together…so that when the elementary schools feed into the middle school we have been on the same page.

The parent was very excited to share what they know about the content of the program and how the physical education teacher has changed the program (Interview, October 26, 2011):
…it is a new fitness based focus that the kids are exposed to a variety of activities even though the main focus is fitness. The physical education teacher does a great job of what he calls ‘camouflage’ and he has the kids involved in a lot of activities where he is getting their heart rate up and now they are exercising in their target heart rate zone. Again, a wide range of new topics have been included, but I know they are hitting all the things: cardiovascular, flexibility, and muscular strength.

Along with changes in the program content, the physical education teacher, the principal, and the director of curriculum stated that their role within physical education has changed. The physical education teacher has been forced to become more creative and varied with his instruction in order to reach all types of learners: visual, auditory, and sensory. In order to build a higher quality, more dynamic, and progressive program, he as well as the director of curriculum noted that they have both taken a more active role in the development and assessment of the entire physical education curriculum, not just at the elementary level. By doing this they have a better understanding as to the scope and sequence of a student’s entire K-12 physical education psychomotor, cognitive, and affective knowledge. The director of curriculum discussed how her role has changed over the past five years (Interview, October 26, 2011):

My role has changed. I read a lot of journals to stay up-to-date on physical education. We meet on a monthly basis. We do plan that out a year in advance. They are planned out a year in advance because we have specific needs as far as curriculum writing, unit based curriculum, and we are following a very strong understanding by designed theory right now as far as writing our curriculum.

Even though the director of curriculum could not give specifics about the elementary physical education curriculum, by admitting her role has changed in a way of becoming more
knowledgeable about physical education, signals her support for the program. An administrator may not fully understand the objectives or content in a program, but if he or she can make sense of what he or she observes and hears in regards to the program, then support is garnered.

Assessment

Elementary A’s program incorporates multiple methods of assessment that target all three learning domains: cognitive, psychomotor, and affective. Elementary C’s program also incorporates multiple methods of assessment but their assessment measures are more authentic in nature. Assessment is critical for the sustainability as well as the quality of a program. Multiple forms of assessment should be used to effectively assess all three learning domains and communicate performance strengths and weaknesses to both the student and the parent. The types of physical education assessments administered at Elementary A are: skill records, fitness tests, quizzes, homework, and report cards. These cognitive and psychomotor assessments align with the national standards written by NASPE. The multiple methods of assessments used within the program exceed most programs and demand learning outcomes from the students. These multiple methods of assessment also demonstrate the value that the physical education teacher as well as the value the school district places on physical education. All participants were familiar with at least one type of assessment or way of reporting student progress. The physical education teacher shared the following regarding how he uses and views assessment (Interview, October 26, 2011):

It is hard to find time to balance activity time and assessment, but I do use assessment. There is a check-sheet in which they grade themselves and write their goals down in the beginning of the year. Then at the end of the year I ask them about their progress. We do
tests and then post-tests. They are assessed every class through skills. They get assessed on their aerobic video.

On the other hand, at times there is a disconnect between the assessment and the parent’s understanding of it. The parent noted that he is aware of a few ways that his child is being assessed, but it is very limited in scope (Interview, October 26, 2011): “I know my child completes homework for physical education. We do see the report card grades, which are indicators in physical education so it is either strength, appropriate progress, or needs improvement. So that is really the limit of feedback that we are getting back assessment wise.”

For assessments to fully contribute to the quality of the physical education program, the results must be understood by administrators as well as parents in order to assist the student with skill and fitness progression.

**Perceptions of the Program Linking to Childhood Obesity**

Physical education can have an impact on childhood obesity if locomotor skills are taught appropriately targeting all three learning domains: psychomotor, cognitive, and affective. This allows for increased participation opportunities both during and after physical education class. All participants felt as though the perception of the elementary physical education program is one that can influence healthy and active habits and thus link to student obesity levels. Two common reasons that were associated to this perception were education and opportunities. Education is defined as the content knowledge (nutrition, body systems, and fitness) and psychomotor skills that are taught in class have application to what obesity is, why it has become an epidemic, and how to live a healthy lifestyle. Opportunity is defined as the variety of psychomotor skills that students are exposed to and taught, the ways to implement such skills
into their daily lifestyle, and the plethora of after-school activities and events that target physical activity. Education and opportunity combined, creates an environment for students to be active. The K-2 classroom teacher can see the relationship between opportunities in physical education and its impact on childhood obesity in the school (Interview, October 26, 2011): “There is given opportunities, a lot of opportunities in physical education, after school activities, recess. What they learn in physical education can be used.” The director of curriculum also added (Interview, October 26, 2011): “I don’t know the exact numbers, but as I said everyone is involved and as far as making sure that it is a core component of our elementary physical education program.” Additionally, the parent commented (Interview, October 26, 2011):

So how do we transfer and get kids excited about activities so they are more willing and able to participate on their own time, I think physical education is key. The other part is the nutritional education the kids receive, in class and in the cafeteria. I think the combination of both things is helping out the kids as much as anybody can to fight that trend.

As the data suggests this particular program has influenced the perception of the program to link to childhood obesity because it extends well beyond just teaching to the psychomotor domain and in the gymnasium. There is buy-in, understanding, and excitement from the classroom teachers, the administration, and the parents about the importance of physical education and being active. Students are hearing this message from many different sources as well as having multiple opportunities to participate in physical activity which aligns with the criterion for sixty minutes a day of physical activity. Furthermore, the collaborative efforts between the physical education teacher, the parents, and the community to provide after school and weekend physical activities has contributed to the impact this program has had on student
weight and health. Elementary B and Elementary C’s programs have also been able to change the perception of their programs to ones that reflect a possible link to influencing childhood obesity through incorporating fitness and wellness concepts as well as communicating with parents and community members.

Conditions that Enable

When participants at Elementary A were asked what conditions enable their school to provide a strong elementary physical education program, the top four responses from all participants were 1) administration support 2) the physical education teacher 3) common goals 4) community and parental support. All four of these responses align with the conceptual framework as seen in Table 5.1:

Table 5.1 Alignment of Enabling Program Conditions at Elementary A to the Conceptual Framework

<table>
<thead>
<tr>
<th>Elementary A Data</th>
<th>Conceptual Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration support</td>
<td>Administrative Support</td>
</tr>
<tr>
<td>The physical education teacher</td>
<td>Content and Instruction</td>
</tr>
<tr>
<td></td>
<td>Professional Preparation and Development</td>
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<td></td>
<td>Financial Support</td>
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<td></td>
<td>Adaptive Instruction</td>
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<tr>
<td>Common goals</td>
<td>Collaboration</td>
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<tr>
<td></td>
<td>Content and Instruction</td>
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<tr>
<td></td>
<td>Assessment and Accountability</td>
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<tr>
<td>Community and parental support</td>
<td>Collaboration</td>
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</tbody>
</table>

Elementary B and Elementary C also stated that the physical education teacher and administration support were enabling conditions to their programs. Additionally Elementary C noted too that outside support and collaboration from parents and community members was an enabling condition. On the other hand, Elementary B lacks strong outside collaboration and is one of the reasons as to why that program was the weakest of the three used for this study.
Elementary A was the only school that stated common goals as an enabling condition. This is apparent in the collaborative efforts in the revision of the curriculum and the six common units taught across all grade levels.

Administration Support

Administration support for Elementary A’s program is most notably seen through the elementary physical education curriculum because of its detailed content and alignment, its timely revisions, and its accountability measures of student outcomes. All participants discussed administrative support in a positive light and talked in terms of understanding the program, its objectives, and its importance within education. Administrative support was described by all participants as being active and instrumental with support coming from the principal, the department chair, and the superintendent. The curriculum team consists of administrators, the department chair, and physical education teachers. The administrative support at Elementary A is similar to the administrative support at Elementary C. The principals at both programs explained how they are actively involved in the program in various ways. The directors of curriculum both discussed a general understanding of the program and how it fits into a student’s overall education. The parents and classroom teachers at both schools explained how they have become aware of the strong administrative support. The physical education teachers at Elementary A and Elementary C explained their close relationship with the administration and how they are not afraid to ask for support or suggest ideas for change.

The administrative support for Elementary A’s program was evident immediately upon entering the school building. The principal was extremely receptive of discussing the program and spoke enthusiastically about her involvement in the program (Interview, October 26, 2011):
Well I am pretty much active. The after school classes that our PE teacher teaches, I teach with them or I will teach a class with him and come back in the evening. I will do intramurals with them. Currently, I am doing a biking class with them. I just try to get as involved as I can because I enjoy being active and I know students do to.

The K-2 classroom teacher’s statement reaffirmed the fact that the principal is actively engaged and supports the program (Interview, October 26, 2011): “Our principal here is definitely instrumental in getting kids active. It is wellness. She is a leader in the building.”

The Physical Education Teacher

At Elementary A, the physical education teacher has influenced the quality of the program. The physical education teacher approaches instruction in an energetic manner and displays a sense of caring for student progress. For example, as each fourth grade student entered the gymnasium the physical education teacher asked if they were ready to work hard and have fun. When the students were engaged in the “Triple Threat” cross-fit stations, the physical education teacher made it a point to go around to every student and provide them feedback on their work rate or progress.

The principal, the classroom teachers, and the parent noted that the physical education teacher has not only been a motivator for program change, but also his method of instruction has helped increase the quality of the program. This was also found to be an enabling condition for Elementary B’s and Elementary C’s program. The physical education teacher is very dynamic and energetic when instructing and uses multiple methods of instruction such as guided discovery, teaching by invitation, and intratask variation. The K-2 classroom teacher described how she views the physical education teacher (Interview, October 26, 2011): “The physical education teacher gets them moving from the very beginning and they are motivated about
physical education. He is very knowledgeable and the students are learning about health aspects along with it.” The physical education teacher, the principal, and the director of curriculum stated that grant money was the number one enabling condition that allows for a quality and sustainable physical education program. The physical education teacher explained that grants are what motivates him to continually improve his program (Interview, October 26, 2011):

Grants would be my motivation…wanting to share…wanting to continue building a program…go to conferences, so I can present on what I have been teaching, being professional. Also the support I get from my administration, by my Chairperson, and by other people within my department and school. Also working with people who are interested towards accomplishing the same goals. Being in my own building and running my own program, the way I want. We want kids to be active when they leave school, but you need a quality physical education program. If you don’t have the quality, then it’s not worth stressing the idea of being physically fit for a lifetime.

A physical education teacher who integrates well-designed lessons that facilitate student learning, uses regular assessment to monitor and reinforce learning, distributes in-class and out of class assignments and activities that support learning and practice, and focuses on maximum practice opportunities for all students is a powerful enabling condition of a high-quality program.

**Common Goals**

A direct extension of strong administrative support is seen through the common goals of the Elementary A’s physical education program. The common goals are evident in the school district’s physical education mission statement and the outside collaboration from faculty, parents, and community members. The common goals have also contributed to the program
having an impact on childhood obesity by understanding appropriate and beneficial engagement in physical activity must occur in other settings, not just the gymnasium.

*Community and Parental Support*

In a time where physical education is under scrutiny, collaboration is central to the sustainability and the objectives of a program. Collaboration was not only found to be an important enabling condition within Elementary A’s program, but the same was found within Elementary C’s program. The director of curriculum shared her thoughts has to what conditions have enabled the elementary physical education program to be one of high-quality (Interview, October 26, 2011):

> It takes great teachers and community support. Parents and kids will often, especially in the elementary school, tell you it is their favorite day of the week. They build team skill, but at the same time have fun learning. The parents also have an understanding of the curriculum because the physical education teacher makes sure of that.

The physical education teacher invites parents and community members into his class and asks for help when organizing after school events. This support was not just harvested overnight, but the physical education teacher has worked from day one effectively communicating with parents about physical education content and out of class assignments through emails and newsletters. The principal explained (Interview, October 26, 2011), “They [parents and community members] have opportunities almost daily to participate. We do a field day. The PE teacher has many things going on in class that he has parents in on a regular basis. Extracurricular activities for parents and community members. It is all through the gym and wellness.” Parental and community support takes time to establish, but once established as seen at Elementary A, it can be a driving force behind a quality and sustainable program.
Conditions that Constrain

Resources are a key component of a physical education program and if appropriate resources are not available then that can place constraints on a program as is the case at Elementary A. When participants at Elementary A were asked what constraints does their physical education program face, resources was the common response: money, time, and facilities. Money was also a constraint for Elementary B’s and Elementary C’s program. Money is necessary to buy equipment. Time was a constraint for Elementary C’s program too. Time is necessary for students to receive proper instruction and engagement opportunity. Facilities was not directly mentioned as a constraint for Elementary B’s or Elementary C’s program, but Elementary C did state that storage was a constraint. Facilities are necessary to provide the appropriate environment to teach a class as well as store equipment. The content and instruction could be stellar, but if necessary resources are not available, then the program cannot be carried out as planned.

Money

If there is a limited elementary physical education budget, then a suitable amount of equipment or a variety of equipment cannot be purchased. All three programs stated that money has been a constraint when it comes to purchasing a suitable amount of equipment to provide students with maximum practice opportunities or introduce students to new activities. At Elementary A the immediate answer from all participants regarding constraining conditions was money. Money is defined as the specific, allotted budget for physical education. The principal noted how grants have been the main source of money for the program (Interview, October 26, 2011): “I have a little bit of a budget for my PE teacher, but I do not have a whole lot. It’s basically donations, it’s going to be grants and there are opportunities, lots of opportunities for
grants, which our PE teacher takes full advantage of.” The K-2 classroom teacher also agreed that the number one constraint facing the program is money, but that constraint has been overcome by the physical education teacher’s motivation to apply and receive grants (Interview, October 26, 2011):

> I think the biggest one would be financial constraints. There are so many budget cuts. So the program might not get all the money it might want. That is why our PE teacher gets lots of grants. He looks for a lot of grants so that he can get new equipment. He just got bicycles. Then he got money from the PTA to build the shed to store the bikes. He is always seeking for outside sources.

> Even though money is the number one constraining condition for the program, the physical education teacher has taken it upon himself to overcome this constraint and search for alternative financial support. He stated that grants were his motivation to make his program successful (Interview, October 26, 2011). The director of curriculum noted (Interview, October 26, 2011), “Sometimes we will talk about grants and the fact that sometimes if you are going to replenish your equipment in a budget time like this it may take a grant. Not a grant to do something creative, but for stability.” The school district received $465,000 through the Carol M. White Physical Education for Progress (PEP) Grant. In particular these funds are being used at the elementary level for professional development, developmentally appropriate fitness equipment, heart rate monitors, GPS devices, and adventure education elements. Additional grants have been earned through Highmark Healthy High 5 ($20,000+) and the support of the Parent-Teacher Organization. The Pump House Run has been held annually for the past nine years to promote family fitness in the community and has raised over $25,000 for physical education. Furthermore, the physical education department raises funds for various community
health causes such as: Jump Rope for Heart, Hop for Leukemia, and Hoops for Heart. These grants and funds have supported the transition from a traditional sports-based program to a program that emphasizes fitness-concepts and lifelong skills. These grants demonstrate the initiative and passion of Elementary A’s continuous improvement within physical education even in a time of educational financial constraints.

**Time**

Time is a constraint because Elementary A students only receive physical education instruction for forty-five minutes once a week which does not come close to meeting the recommended time. The recommended minutes per week that elementary students should be receiving physical education is 150 minutes. The second most common response by four out of five participants at Elementary A was time. The limited instructional time is similar across all three programs. Time, referring to the number of minutes a student receives physical education instruction as well as the number of minutes the physical education teacher is allotted for daily plan periods. The physical education teacher teaches five classes a day, plus has other responsibilities such as bus duty and lunch duty. The director of curriculum commented on time being a constraint within physical education as well as education as a whole (Interview, October 26, 2011):

There are not enough hours in the day. We hear several legislative ideas coming down the pipe to require sixty minutes of activity a day, etc. And that’s an absolute luxury, we are still trying to figure out a way to get more physical education into the elementary schools. So, what is sad about all education, I guess it is also a blessing too. We want to keep putting more and more in but what do we decide to come out?
As with any academic subject or skill, in order to reach a level of proficiency, students must be provided ample instruction and practice time. Additionally, with the scope and sequence of the physical education curriculum being comprehensive, there should be more time devoted to physical education. Two to three weeks on a unit, which is equivalent to two to three classes, is not enough time for any elementary student to meet a generic level of skill proficiency. Elementary A has been able to mask this time constraint by collaborating with classroom teachers, parents, and community members to offer other opportunities to practice skills and engage in physical activity which is similar to what Elementary C has done.

**Facilities**

Facilities can be a constraint to a program because if appropriate facilities are not available, then certain skills, activities, or games cannot be taught. Furthermore, if appropriate facilities are not available that can be a concern for safety and liability. Facilities were stated as a constraint by two of the participants at Elementary A. Facilities is defined as the size of the gymnasium, the amount of storage, and the use of the outside area. At Elementary A, the total size of the gymnasium is 96’x59’, but only half of it is used for physical education purposes (48’x30). The other half is used as a cafeteria. When considering the average number of students per class is 24 and the size of the gymnasium that does not equate to a very large space. Space does put a restriction on instruction and activities.

Storage also puts a restriction on the amount and variety of equipment a program can purchase. This was also a constraint for Elementary C’s program. For example, Elementary A was awarded a grant to purchase mountain bikes and helmets. Bikes are very large items and need a proper storage facility. Due to the limited storage areas available in the school building, along with no reserve money left from the grant, the physical education teacher had to
collaborate with parents and use Parent, Teacher, Association (PTA) funds to build a separate storage unit on their own time for the bikes and helmets. The physical education teacher acknowledged another example of limited storage when he discussed the implementation of Railyard Fitness equipment into the program. Railyard fitness equipment is indoor, portable obstacle course elements used for cardiovascular, muscular strength, and balance training. The elements are large hard-plastic pieces that do not just fit into a closet. The only storage option Elementary A has for this equipment is on the stage, which is in the gymnasium. Because storage is on the stage, the physical education teacher was limited as to how many pieces could be purchased.

Outside play area can be a constraint for the implementation of activities, skills, and games. The majority of the outside play area at Elementary A is a paved parking lot. Approximately 50 yards beyond the edge of the pavement, is a thick wooded area. On the other hand, the physical education teacher noted that to a limited extent these constraints have hindered or limited his program, but to a great extent these constraints have forced him to become more creative in order to expand and increase the quality of the program (Interview, October 26, 2011):

We are working on going outside and working on cardio. They do lots of running games while wearing pedometers. We want to take 10,000 steps per day and 2,000 steps per class. I purchased a whole set through a grant I got called Geo Mate, so we can also do Geo Caching. This year my students have done two lessons in this in the new outdoor activity unit. I got the mountain bikes through a grant and now I give them two to three lessons on bikes outside. I have another activity that is similar to a triathlon. They run down the trail, we have a zip line set-up inside, and they kayak on scooters inside which
mimics a swimming motion. Students are working on a number of muscle groups and it is fitness combined with a number of things. They love to be outside and in nature. I had parents help me build the bike shed and cut out the trails in the woods. I think I said this before, these things are made possible by grants, which is my motivation and building a dynamic program.

Resources can be a huge constraint to the quality and sustainability of a program, if the personnel involved in the program do not take action. Elementary A’s physical education program is an example of how the motivation to continuously become better can be contagious – from the motivation of the physical education teacher to acquire grants to the motivation of the collaborative efforts among the parents and community to provide additional physical activity time and opportunities for students. This same contagious cycle of motivation was apparent in helping Elementary C’s program overcome its constraints.
CHAPTER 6 ELEMENTARY B

I entered the main doors, which were on the ground level, and immediately heard loud cheers and screams of excitement. I followed the signs to the main office, which was upstairs. As I was walking up the steps the cheering and the screaming was getting louder and I figured it had to be coming from the gymnasium. As I reached the second floor, I peeked around the corner and saw a fifth grade class actively engaged in what appeared to be a basketball lesson. I had a smile on my face, due to what I heard and saw, screams of excitement while actively engaged.

I made my way to the main office to sign in. The secretary sternly asked, “Who are you? What are you visiting for?” The secretary was not the most welcoming individual and it was apparent that the principal did not inform the secretary of my visit. Furthermore, the principal was not the most receptive when I asked for her participation in my study. She was not very eager to talk about the physical education program and offered very little detail.

After meeting with the principal, I walked back down to the gymnasium. A fifth-grade class was just finishing up a basketball lesson when I arrived and they stared at me. After a few moments, a few students asked who am I. I replied, “A teacher from Penn State.” One student asked, “Are you teaching our next class?” I said, “No, I am just in your school today learning about your physical education class.” The student smiled, got a drink and then scurried down the hallway. There was a bit of confusion in the hallway because the fifth grade class was leaving while the third grade class was entering.

The confusion subsided after the third grade students entered the gymnasium and immediately sat down. All nine Halloween Aerobic Fitness Stations were set-up and evenly placed around the gymnasium. The third grade students entered the gymnasium, immediately sat
down in the middle and were giggling and smiling with excitement. The physical education
teacher told the students that they would be working on different skills at each Halloween
station. By the look on the students’ faces, you could tell they were about to burst at the seams
with excitement. The physical education teacher verbally explained and visually demonstrated
each station, but did not emphasize skill cues. The initial instruction took approximately five
minutes. By the time she was done, seven minutes of class time had passed. The cheers of
excitement that I attributed to active engagement obviously do not happen right away in the
lesson.

The physical education teacher had the students count off by nines and disperse to a
station. The Monster Mash started playing and the students erupted with excitement. The
physical education teacher walked around the gymnasium, but only offered general feedback and
encouragement even though a few students were struggling with skill performance at numerous
stations. For example, a boy was having difficulty putting at the Graveyard Putt-Putt station.
He was not holding the club correctly, nor was he standing correctly and therefore he was not
able to putt the golf ball into the cup. The boy was clearly frustrated. After each missed putt he
would stomp down the green carpet to pick up his ball and stomp back to try again. The
physical education teacher only encouraged the boy, but did not assist the boy in fixing his grip on the
club or his positioning in relationship to the golf ball.

On one hand, the nine Halloween stations kept all students actively engaged during the
class, allowed for maximum practice opportunity because only two to three students were
assigned to a station, and allowed for all students to work on nine different skills. On the other
hand, using a nine-station set-up required a longer initial instruction period and opened the
door for the physical education teacher to be lazy. She did not provide specific and congruent
feedback to students because there were so many skills being worked on at one time. She did not check for understanding regarding the correct cues and execution of the different skills. There was no opportunity to pinpoint a student who was performing a skill correctly. Additionally, there was no other assessment measure except teacher observation. The Halloween stations were well planned on paper and aligned with a lifelong skill and fitness model as well as the standards, but actually displayed a lack of teacher involvement and a maximum level of student skill proficiency.

Elementary School B was the second site I visited and conducted interviews. The elementary physical education program is average, which will be highlighted through evidence that is presented in this chapter. The physical education teacher is enthusiastic and it appeared that the students enjoy physical education, but there is a lack of collaboration within the program and minimal understanding of the program among the administration. This program is not as comprehensive and cutting-edge as Elementary A or Elementary C.

The school district is located south of Pittsburgh, PA. The district serves three municipalities and spans over 35 square miles. Most of the district is suburban-residential and has a solid tax base. The median household income is $48,843. It has a total population of approximately 18,140 and a K-12 student population of 2,721. The district employs 320 faculty, staff, and administrators. The operating budget for the 2011-2012 school year is $35,481,737 with a per pupil expenditure of $11,339 (school district website, 2012).

Elementary B is one of the six schools in the district and one of four elementary schools. A total of 282 students are housed in this particular elementary school. The gymnasium is located on the upper level of the school. The gymnasium is 180’ x 80’. It also serves as the cafeteria during lunch hours, so therefore physical education classes cannot be taught during that
time. An array of vibrant colors fill the gym, from the ceiling to the floor. Murals of the solar system, the world, and sports are painted on the walls. The gym floor is made out of red, white, blue, and green tile. The colorfulness of the floor gives off a playful vibe when you enter. There are six basketball hoops around the gym, 2 at each end and 2 on each side wall. On the wall opposite of the entrance are large murals that were painted by students that depict outer space. There are NFL Play60 posters hanging around the gymnasium as well. Posted next to the entrance in the gymnasium are the physical education rules and desists. Posted next to the entrance outside the gymnasium is a large, white dry-erase board that lists the following: warm-up, class game or activity, and inside or outside. This board is updated daily, so before the students enter they can read what tasks are at hand and then immediately engage in warm-up.

The physical education teacher at Elementary B is the only physical education teacher in the school. She has been teaching physical education for seven years and holds a Master’s degree in Physical Education. She teaches six, 40-minute classes a day. Students receive physical education two times during an eight-day cycle. There are approximately 22 students in each class and each year that average number has increased. The yearly physical education program budget for Elementary B is $500 that comes directly from the building principal.

Program Content

The program content at Elementary B includes seven units and the main objective of the program is to help students develop skills necessary for physical activity. The program content aligns with a lifelong fitness and skill model, which also holds true for Elementary A and Elementary C’s program. When participants at Elementary B were asked to tell me about their physical education program, the responses included skill and fitness stations, sport games,
choices, and cross-curricular connections, to describe the program content. These responses were similar to Elementary A because they both offer choices and the content extends beyond sport and games. On the other hand, this program differs from Elementary A because it still incorporates many sport games opposed to fitness and lifelong activities. For the most part objectives of the curriculum and the lessons align with the six NASPE standards, but not as strong of an alignment that Elementary C’s program displays. Not only are there seven units in Elementary B’s curriculum, but also there are also ninety-six lessons in the curriculum. With such an extensive amount of lessons, there is not really an opportunity for students to increase their level of skill proficiency in particular areas. Furthermore, the sequence of units in the program lacks alignment compared to the sequence of units in Elementary A’s program.

Skill and Fitness Stations and Sport Games

Elementary B’s program has made the transition from being a purely sport and game based program to one that incorporates fitness and focuses on skill themes, but the transition has not necessarily been properly implemented and refined. There are lessons and units out of sequence with vague objectives and outside application. Just like Elementary A’s and Elementary C’s programs, Elementary B’s program has had an impact on increasing student physical activity engagement and childhood obesity, which will be discussed later in this chapter. However, due to the lack of outside collaboration found in Elementary B’s program this impact has been limited.

Choices

The participants mentioned that the program offers choices. These choices include seven different units ranging from fitness to creative movement to orienteering. By providing an extensive amount of choices, increases the likelihood that a larger percentage of students will
become proficient at a skill and engage in physical activity beyond physical education class time. Elementary A’s and Elementary C’s program also offer many skill and activity choices and sequences them in such a way that a level of mastery can be met. Elementary B’s program is structured in such a way that these choices jump from the fitness unit to the tag game unit to the Frisbee unit, which is an example as to how the program lacks appropriate sequencing where one skill or concept flows into the next.

*Time*

All participants mentioned that students receive physical education two times within an eight-day cycle. They were very proud to note this amount of time, since they are aware of the limited physical education instructional time that a majority of students in Pennsylvania receive. Additionally all participants noted the increase in active engagement time has changed over time. This means that instruction, transition, and/or wait during class have decreased, and active student participation during class has increased. The physical education teacher discussed how she really strives to limit wait-time and maximize activity time (Interview, October 27, 2011): “I don’t want the students sitting at all. If I can get them up and moving in a 40-minute class period, I want them moving 32-33 minutes during the class.” Active engagement for at least two-thirds of a class not only raises students’ heart rates but also allows multiple practice opportunities that can then assist in the transfer of skill and knowledge beyond the gymnasium. In the lesson I observed the students were active more than two-thirds of the class, but they were not immediately engaged in an instant activity when they entered the gymnasium. Immediate engagement in an instant activity allows for the students to start moving immediately, raises their heart rate, and sets the tone for the remainder of the lesson.
Cross-Curricular

A cross-curricular connection in elementary physical education involves a conscious effort to apply content knowledge from another class into the physical education lesson. A cross-curricular lesson simultaneously merges multiple discipline areas. The principal was excited to inform me of a cross-curricular example that combined walking with understanding and seeing history that pertained to a major city (Interview, October 27, 2011): “One great example of a cross-curricular connection is when she received a grant to take the students on a walking tour of the city and they looked at historical landmarks, looked at architecture and things like that while being active.” This cross-curricular example was neat to hear about because it placed physical education in the academic light as well as outside of the gymnasium.

Changes in the Program

The physical education teacher at Elementary B recognized that her program had to change and was interested in SPARK, which is a program model that focuses on countering childhood obesity (Interview, October 27, 2011), “I am integrating SPARK so I am taking out the sports’ skills and progression and things like that, especially with primary grades and using more stations because I don’t want them sitting …I want them moving.”

Many teachers find it difficult to “let go” of their current practices and “hang on to what is familiar in a daily routine” (Locke, 1992). Elementary physical education teachers who have been using a traditional sports model can be resistant to teaching a lifelong physical activities model for several reasons: 1) Foundation – their training and education was that of a traditional sports curriculum. 2) Acceptance – they are not willing to accept a new curriculum with new lessons and new skills. 3) Adaptation - they do not have the education about how and what to
teach; therefore they would be pulled out of their comfort zone. They lack the willingness to adapt to a change. When foundation, acceptance, and adaptation are combined with a lack of professional development, respect for the subject, and accountability, the result is no change. But this was not the case for any of the physical education teachers in any of the programs. They viewed the need for change as a positive learning opportunity as well as an opportunity for physical education to have a greater influence on students’ lives.

Elementary B revised their curriculum in 2010 and outlined seven units with a standard-based lesson focus. All participants noted this curricular and programmatic change as a strength. They are aware of the increase in the variety of physical activities, skills, and games. With the help of grants and Parent Teacher Association (PTA) funding, technology has become integrated into the physical education program. The use of Geo Caching GPS devices, pedometers, Wii Dance, and Dance, Dance, Revolution has become a basis for program units. Combining technology with variety has created a new sequence of units and extension of basic psychomotor skills within the program. The physical education teacher shared the following about the structure of activities in the program (Interview, October 27, 2011):

My program stresses locomotor movements and memories. It stresses basic skill acquisition. Primary grades, there are a lot of skill development games. Then at secondary grades, I introduce more complex skill-oriented sports. I mix traditional sports with lifelong sports such as golf and bowling.

The principal supports the program and expressed a general understanding of the program, which aligns with the enabling condition: administrative support. The principal was aware of how the physical education teacher structures her class and the emphasis that she places on engagement time (Interview, October 27, 2011):
Our physical education teacher does a good job of teaching students how to play specific games. I know that she does goal-setting with them for certain activities. She runs skill and fitness stations in the gym where students are actively engaged so there is no down time; while you are waiting for your turn at something you are doing something else.

The 3-5 classroom teacher made reference to her knowledge about the wide-variety of skills and activities taught in the program (Interview, October 27, 2011):

I know that our physical education teacher often does rotations with students. She does different stations so they are not all working on one big game. She changes it every 2-3 weeks. She changes the skill. I also know that she does a fitness warm-up and students are participating in physical activity throughout the forty minutes she has them. They come back tired and sweaty!

As defined in the conceptual framework, content and instruction contribute to the quality of the program. For an elementary physical education program to contribute to the overall wellness of students and meet the goal of instilling healthy and active habits for a lifetime, the focus has shifted to a more comprehensive approach that ties in health and nutrition concepts. The physical education teacher, the principal, and the parent noted that the incorporation of health and nutrition concepts into physical education has been a positive change over time. Some of the lessons pair physical activity with health content knowledge. This incorporation of health and nutrition better align with the revised school district curriculum and also bring a sense of awareness to students. Connecting health with physical education is important because students in this school district receive very limited health education. Since health class is not a requirement for students in Elementary B, the physical education teacher discussed how she
integrates health concepts into physical education because health and physical education are one in the same (Interview, October 27, 2011):

I try to incorporate as many of the physical education standards as I can. But, on the other hand, there is no standard health class until they get to high school. So as far as trying to incorporate health, I try to sprinkle in as many concepts and little vignettes as possible during each class.

The parent understood that health and physical education are one in the same and the importance of teaching young students wellness concepts (Interview, October 27, 2011): “She teaches students about being physical active and healthy and the proper food to eat.”

The physical education teacher, the principal, and the director of curriculum stated that the biggest change within the physical education program at Elementary B over the past five years has been the revision of the curriculum and the physical education teacher. The physical education teacher noted the revision of the curriculum as a constraint. The director of curriculum shared how the school district approaches curricular change and the need for such change (Interview, October 27, 2011):

We meet every five years to look at all curriculums. At that time the curriculum at the elementary level was extremely weak. We knew we needed to build a better curriculum. We use standards. It is very important to see how we expect students to progress and grow. We want to ensure that students learn each year and that standards are being followed. We are looking to create the “perfect” physical education program. As a whole it is our job to create that environment.
Adapting the new curriculum forced the physical education teacher to change her instructional approach, her planning and preparation, and her thinking. The physical education teacher shared the following (Interview, October 27, 2011):

My methods are…wow…it is very hodge-podge depending on what we are doing on that day. I will do whole group instruction at the beginning and explain the skill or game and then individually offer feedback. For example when explaining fitness stations, I will start off by explaining and demonstrating the exercises and safety rules as a group and then offer small group reminders at each station. I also use peer-to-peer teaching, giving them a checklist, to hold students accountable for performance and understanding. So key things such as, ’is your partner stepping with the opposite foot?’; ’how are they throwing?’ These methods have helped eliminate behavioral problems because the students are always engaged.

Initially this change was frustrating for the physical education teacher because she had to design new lessons and step out of her comfort zone of teaching traditional sports. She had to learn new concepts, NASPE standards, and sequence of the curriculum. As expressed in her description she is a bit scattered when it comes to the actual teaching of the lessons because she is not completely comfortable with the content. On the other hand, she has been able to see past this frustration and see the how the program is affecting students beyond the gymnasium (Interview, October 27, 2011): “…they can be active at home and continue these skills. I am finding that a lot of this is transferring home.” In addition to the physical education teacher changing based on the new curriculum, the classroom teacher also noted a change in her role. One of the responses from all participants regarding the program was awareness. Awareness about how to live an active and healthy lifestyle goes hand-in-hand with exposure to new
activities, skills, and concepts. The classroom teacher particularly, remarked on how her role has changed within physical education (Interview, October 27, 2011):

I carry physical education concepts over into the classroom. The kids are always up and moving. We actually have a physical activity part of the day where we use and build on things learned in physical education. I am trying harder to make cross-curricular connections with their physical education experience. We talk about being active and fitness and how that helps.

Similar to the case of Elementary A, the director of curriculum offered the least about specific details regarding the program and its content. The director of curriculum’s responses were more focused on general curricular change and standard alignment. Furthermore, unlike the level of program involvement and knowledge from the principals at Elementary A and Elementary C, the principal at Elementary B expressed limited knowledge about what she knew to be taking place in physical education, yet administration support was found to be one of the top four enabling conditions for this program.

Perceptions of the Program Linking to Childhood Obesity

Participants from Elementary B feel as though the new perception towards their physical education program can be linked to influencing childhood obesity. This change of perception was also found for similar reasons in Elementary A’s and Elementary C’s programs. It was found that across all three programs an influence has been noticed because the physical education teachers have been an active role model, they have incorporated a variety of skills and activities into their programs, and they have taught to all three learning domains which can help in the transfer of knowledge and skill beyond class time. The physical education teacher, the
classroom teacher, and the parent felt as though the physical education program at Elementary B has had an impact on childhood obesity. Elementary schools are using various strategies to raise awareness about childhood obesity. They are organizing family fitness events and run-walk races. PTA groups are assisting in restoring recess and afterschool physical activity programs. Also they are offering healthier lunch choices and limiting unhealthy snacks during the school day. As seen in this case, they are partnering with the NFL Play 60 campaign. Additional reasons for this impact are opportunities to learn how to be active, ability to transfer the concepts of how to lead a healthy lifestyle from the school setting to the home setting, and exposure to new movement skills and activities beyond that of traditional sports.

The physical education teacher understands the importance of teaching skills and concepts that can be transferred and applied beyond physical education class in order for physical education to be a mechanism to decrease childhood obesity (Interview, October 27, 2011): “I can see what I have taught students, how to be active for 40-minutes, that they see this and can be active at home and continue this especially if they are not part of a sports team. I truly believe this is carrying over, finding that a lot of this is transferring home.” Additionally the parent stated the following, which points out the fact that this physical education program has had some degree of impact on childhood obesity (Interview, October 27, 2011):

She is really involved in getting the kids to be active to combat obesity. She is active herself, so I think she wants her kids to experience that. She understands that some kids do not get the information at home and it is a necessity to teach such skills in school and then have the kids teach the parents how to be healthy. I think the key piece of teaching them, almost like a health course, about nutrition and about why it is important to watch what you put into your body and why it is important to move and be in activities. So it is
very important to teach all this, especially in the elementary schools, just to start good practices and habits at an early age.

Also the K-2 classroom teacher said (Interview, October 27, 2011): “I feel that the activity they get in P.E. class and what they learn along with the health and nutrition part is helping students in our school become less obese. The P.E. teacher does a good job getting the kids active and how to stay active.” The program’s impact on childhood obesity is attributed to the physical education teacher being an active role model, the combination of teaching physical activity and health concepts, and the structure of the lessons that allow for a high-rate of engagement time in lessons that can be transferred beyond the gymnasium.

Conditions that Enable

Enabling conditions such as the ones stated by the participants at Elementary B allow a program to improve and become respected within a student’s educational experience. When participants at Elementary B were asked what conditions enable their school to provide a strong elementary physical education program, the top four responses from all participants were 1) the physical education teacher, 2) administrative support, 3) grant money, 4) variety. All four of these responses align with the conceptual framework as seen in Table 6.1:

Table 6.1 Alignment of Enabling Program Conditions at Elementary B to the Conceptual Framework

<table>
<thead>
<tr>
<th>Elementary B Data</th>
<th>Conceptual Framework</th>
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<tbody>
<tr>
<td>The physical education teacher</td>
<td>Content and Instruction</td>
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<tr>
<td></td>
<td>Professional Preparation and Development</td>
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<tr>
<td></td>
<td>Financial Support</td>
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<td></td>
<td>Adaptive Instruction</td>
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<tr>
<td>Administrative support</td>
<td>Administrative Support</td>
</tr>
<tr>
<td>Grant money</td>
<td>Financial Support</td>
</tr>
<tr>
<td>Variety</td>
<td>Content and Instruction</td>
</tr>
<tr>
<td></td>
<td>Assessment and Accountability</td>
</tr>
</tbody>
</table>
Even though Elementary B’s physical education program’s enabling conditions align with the conceptual framework, this program is the least strong among the three cases studied. This program lacks strong collaboration in comparison to Elementary A and Elementary C. The principal and the director of curriculum both shared that there is very little involvement with the community and there are no after school programs (Interview, October 27, 2011). Collaboration is a strategic component within a skills, fitness, and wellness program model because it takes different groups of people to understand the objectives of the program and reinforce those objectives in order for the program to thrive. Elementary A and Elementary C also stated that administrative support and the physical education teacher were enablers to the strength and quality of their program. Both Elementary B and Elementary C found grants to be an enabling condition in order to change their programs and purchase necessary equipment. All three programs stated how their programs have changed and the quality and variety of the program content, but Elementary B was the only program that stated the content variety was a strong enabling condition.

The Physical Education Teacher

The physical education teacher has had a very strong influence in changing the structure as well as other’s perception and understanding of the elementary physical education program at Elementary B. She recognized that the elementary physical education program needed updated and restructured in order for it to be of value to students as well as value to their overall education. She took on this challenge with enthusiasm because she is passionate about physical education and its value. This passion radiates throughout her interview responses. The physical education teacher has been a change agent by implementing the revised curriculum, investing time in finding and obtaining grant money, and exhibiting a level of excitement pertaining to
instruction and content. The director of curriculum spoke very highly of the physical education teacher being a vital part of change (Interview, October 27, 2011): “There is a great teacher at that school. She is always trying to think up new ideas, new things for the students. Her involvement in the new curriculum has been very important.” The principal also supported the fact that it is the physical education teacher who has been the one to drive change within the program (Interview, October 27, 2011): “The biggest strength is the high level of commitment on the part of the physical education teacher. She is truly invested and because of this the kids genuinely engage.” This is a case where the physical education teacher’s enthusiasm for change and how she went about it caught the attention of the administration, which led to stronger administrative support. This enthusiasm displayed by the physical education teacher at Elementary B is similar to the enthusiasm displayed by the physical education teachers at Elementary A and Elementary C. At Elementary A, it was not just the physical education teacher who initiated change within the program, but it was a collaborative effort, which included all physical education teachers and the administration. The physical education teacher at Elementary A did not have to necessarily gain stronger administrative support. The physical education teachers at Elementary C were the main change agents just like at Elementary B, but did not have gain stronger administrative support like Elementary A.

*Administrative Support*

The administrative support for Elementary B’s program is weaker compared to the administrative support that was found at Elementary A and Elementary C, but nonetheless it was found to be an enabling condition related to the quality of Elementary B’s program. As previously mentioned, in this case it the enthusiasm for change displayed by the physical education teacher that was then noticed by the administration and then support was gained.
Even though the principal and the director of curriculum had limited knowledge about the physical education program, they stated administrative support was an influencing factor in their high-quality program. This was also the case in Elementary A. The principal commented on her increased involvement (Interview, October 27, 2011): “My involvement in the program has increased over time and I understand the general structure of what instruction looks like, so I try to apply that to the context of the physical education class and support what the physical education teaching is doing.” The director of curriculum also expressed that he supports the need for change in physical education (Interview, October 27, 2011): “I support what is being done in physical education. It is my role to make sure curriculums align and there is continuity. My job is to help the teacher create a fun learning experience and if she needs support I am there.” Administrative support is an important entity for Elementary B because the curriculum and the structure of the program went through major revisions within the past five years. Approximately five years ago the program was almost phased out due to high teacher turn over (health issues and death) and lack of investment in professional development and up-to-date content and knowledge. The director of curriculum recognized this downward spiral and called for the support of the entire administration in order to restructure the program in such a way that it is one of high-quality today.

Grant Money

Grant money serves as a driving force behind the change, quality, and sustainability of Elementary B’s program. Elementary C also stated that grant money was an enabling condition to their program. Elementary B has not been awarded as much grant money as Elementary C, but enough money has been awarded to start to incorporate bits and pieces of the SPARK curriculum and technology into the program as well as partner with NFL Play 60 and establish
opportunities for physical activity outside of physical education class. The physical education
teacher wrote and was awarded the following grants over the past five years totaling
approximately $20,000:

<table>
<thead>
<tr>
<th>Name of the Grant</th>
<th>Money Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highmark Health High Five</td>
<td>$10,000</td>
</tr>
<tr>
<td>America on the Move – Schools on the Move</td>
<td>$5,000</td>
</tr>
<tr>
<td>NFL Play 60</td>
<td>$500</td>
</tr>
<tr>
<td>Mon Valley Consortium - Great Idea Grant</td>
<td>$1,000</td>
</tr>
<tr>
<td>Target Field Trip Grant</td>
<td>$1,600</td>
</tr>
<tr>
<td>Making Activities Count - McDonald's</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

The money received from these grants have been used to purchase golf and tennis equipment,
technology such as Wii/Dance Dance Revolution, and implementation of the SPARK
curriculum. The physical education teacher said the following in regards to grants (Interview,
October 27, 2011): “The support I get for the grant writing and the support of those grants…I
think this is where the strength of the program comes from.” The principal spoke very highly of
the physical education teacher’s ability to write and be awarded grants to enhance the program
(Interview, October 27, 2011): “I am pretty fortunate in that my physical education teacher is
quite the go-getter when it comes to finding resources in the community and finding grants.”
Administrative support goes hand in hand with grant money as an enabling condition for
Elementary B’s physical education program. The relationship between being awarded grant
money and administrative support was also seen in the case of Elementary A and Elementary C.
Variety

The variety of units, skills, activities, and games aligns with a lifelong fitness and skill model. This variety exposes students to different skills that can be applied in various activities and games and progressively improved on throughout the program. Variety also allows for a higher rate of skill and physical activity transfer beyond just physical education class time. The program centers around seven units: 1) Team Sports; 2) Individual Sports; 3) Life-long Sports; 4) Tag Games; 5) Fitness; 6) Themed Activities; 7) Dance and ninety-six lessons. Both classroom teachers are aware of the variety within the program, which also showed that there is collaboration and understanding of physical education among the school faculty, but limited collaboration beyond the school walls. The K-2 classroom teacher said (Interview, October 27, 2011): “I know that she [the physical education teacher] often does rotations and different stations so they [the students] are not all working on one big game. She changes it probably every two weeks. The kids absolutely love going to gym because it is always something different.” The 3-5 classroom teacher said (Interview, October 27, 2011): “…she [the physical education teacher] wants to give them skills, especially students who aren’t necessarily athletically inclined. She gives them something that can be a lifelong sport that they can be involved in. She is really good at pulling in all different sports and activities.” A variety-centered program provides opportunities for students to learn and practice multiple skills and games with the hope of striking an interest to engage in physical activity beyond the gymnasium. Unlike the consistency of common units across all grade levels, which was found at Elementary A, there is a lack of consistency between elementary schools and across all grades at Elementary B. Even though the elementary program offers a variety of units, skills, activities, and games, there is a disconnect between the two elementary schools, the middle and the high school
programs. The physical education teacher shared the following (Interview, October 27, 2011),

We [the physical education teachers in district] teach so differently. It is interesting because we approach it in different ways to go about the skills. I am more up front, here is the skill, this is what we are doing and this is how we are going to do it. They are more into playing games. I have learned more about skill stations, skill development and work on trying to get students more repetitions and additional skill development.

A variety of units, skills, activities, and games was also included in Elementary A and Elementary C’s program, but were more tightly sequenced across all grade levels which attributes to the strong collaboration of each of these programs.

Conditions that Constrain

Money was stated as a constraint for Elementary B’s program because with the limited budget not only has program had to secure funds through grants, but also the physical education teacher has been limited when it comes to attending professional development opportunities. Money was also a constraint for Elementary A’s and Elementary C’s programs. Both Elementary A and Elementary C mentioned that time was a constraint, but Elementary B did not feel as though time was a constraint to their program. However, Elementary B did state that lack of state requirements and state assessments were a constraint. The lack of state requirements and state assessment are not a school district weakness, but rather a state weakness.

Money

Elementary B’s physical education budget has been reduced to five hundred dollars a year. This small yearly budget limits the amount of equipment that can be purchased to implement new activities or even re-vamp existing activities. The physical education teacher
noted that equipment is expensive and therefore a limited budget can be a constraint to the program (Interview, October 27, 2011): “When you are looking at gator-skin balls at $28 a piece, my budget doesn’t stretch very far. I have to be creative to make my dollar stretch further so I can do more and not limit activities.” One way Elementary B has overcome this constraint is by the physical education teacher writing and receiving grant money. The director of curriculum agreed that money is a constraint, but it has not been as detrimental to the program as it could be due to the grant-writing efforts put forth by the physical education teacher (Interview, October 27, 2011): “Funding is a big constraint. In order to make the program even better, funding becomes very important. But our physical education teacher has done a great job putting together grants for new equipment.” On the flip side, the physical education teacher attributed her motivation for grants to the strong administrative support she receives (Interview, October 27, 2011):

Because of the administrative support, I am confident going to them and saying I found this really great opportunity for a grant, let me write it and let me try for it. The support I get for the grant writing and then receiving the grants, I am able to follow through and start these new programs in my classes.

Over time, she has been able to gain the necessary equipment through grant money in order to appropriately implement the revised curriculum. Elementary A and Elementary C have also been able to purchase equipment through grants as well as implement new units and activities. Grants assisted all three programs in overcoming the fact that money was a constraining condition.
Lack of State Requirements and State Assessment

The lack of state requirements and state assessments has been a constraint for Elementary B’s program, especially when it came to revising the curriculum and the overall program. The ambiguous physical education guidelines set forth by the state do not mandate elementary physical education, but rather recommends it. Furthermore the guidelines do not mandate what skills, activities, or content knowledge must be taught at the elementary level. Schools are not required to follow a specific curriculum, but are required to use the standards as a curricular framework for the development of the local curriculum. The physical education teachers at Elementary A and Elementary C briefly mentioned their frustration regarding the lack of requirements and assessment on a state level, but did not state that it was a constraint to their program. Both of these programs displayed stronger administrative support, which has assisted in establishing stronger school district physical education requirements and assessments. The physical education teacher stated that the curriculum revision that took place five years was initially a constraint because she was on one hand, excited to implement the new curriculum and activities, but on the other hand did not have the necessary facilities and equipment to do so immediately and effectively. Furthermore she stated that the lack of state standards and state assessment has made it challenging to continuously revise the program and have educators buy into the importance of physical education (Interview, October 27, 2011):

I continuously revise the curriculum based on what I do in class because it is what I know works. I try to incorporate as many of the physical education standards as I can into it, but I don’t think that they are written thoroughly enough. I think the state standards are poorly written and very difficult to figure out what they really want me to teach and even assess at the elementary level.
The lack of state standards and state assessment weighs heavily on the poor quality of physical education programs as well as why it is being cut from school districts’ curriculum. When there is limited guidance as to what is required of a program and vague student objectives, it becomes difficult to develop a valuable program. In this case it is the physical education teacher’s drive to improve the program as mentioned above that has helped to overcome this constraint.
CHAPTER 7 ELEMENTARY C

From the moment I entered the school, I got the sense they offered a very special physical education program. Elementary C is one of two schools in the district and the only elementary school in the district. A total of 754 students are housed in this particular elementary school that caters to K-6th grade students. Two physical education teachers team-teach elementary physical education.

As I approached the main entrance, the assistant principal greeted me in a very enthusiastic manner, expressing how excited he was that I chose his school for my study. We walked into the office and he led me to a conference room that was prepared for my arrival: cup of coffee, bagel, paper, pen, outlet for my computer, password for Internet access, and a printed interview schedule. This immediate warm welcome demonstrated to me how proud the school is to share and show-off their physical education program.

I made my way across the hall to the gymnasium. As I walked towards the gymnasium I noticed various posters and signs about physical education, physical activity, and fitness, which were hanging on the lobby walls. The physical education teachers greeted me with huge smiles and excitement. I could tell they were excited to show-off their program.

The gymnasium is 78’ x 75’ in size with a hard wood floor which has regulation basketball court lines painted on it. There are a total of six basketball hoops in the gym, one at either end and two on each side wall. The walls and mats are either red or black which are the schools colors. A modified climbing wall spans the entire side wall. Just like Elementary A, on the back wall of the gymnasium are posters of the human body and all the different systems. Colorful locomotor movement patterns and cues are posted on a bulletin board on one of the side walls. There is a Smart Board on the back wall that is used periodically during physical
education class to emphasize the cognitive objectives of the lesson. Posted under the entrance way to the gymnasium and also on the front wall are motivational physical education and physical activity sayings. Physical education class rules and desists are posted in the entranceway so students can read them as they enter the gymnasium. Letters and numbers are posted all over the walls to emphasize the cross-curricular concepts of Action-Based Learning. Off to the right of the gymnasium is an interactive fitness center that was made possible by grant money as well as school fundraisers.

The kindergarten students entered this amazing and vibrant gymnasium and started skipping, galloping, running, and hopping along all different pathways to the music. The music stopped and the physical education teachers asked the students, “What is the letter of the week?” The students yelled back in unison, “H!”

Since the letter of the week was “H”, one physical education teacher discussed the importance of a healthy heart, while the other placed lettered beanbags under colored cones. In about a minute the students were engaged in the Action-Based Learning activity. The physical education teachers skipped, galloped, ran, and hopped right along with the students while providing positive encouragement and feedback while students tried to find the letter “H”. The energy level of the physical education teachers as well as the students was off the charts. I could tell this energy and enthusiasm towards physical education was not just part of physical education class, but it was part of the whole school!

Elementary C’s physical education program is the strongest and most innovative out of the three programs used in this study. It is comprehensive with an overarching wellness theme that incorporates health and nutrition concepts and multiple modes of technology. It includes action-based learning at the primary grades and focuses on cooperative ventures at the secondary
grades. The curriculum is standards-based for all grades. Furthermore, it contributes to the major goals of elementary education by aiding in the social and emotional adjustments necessary in society. General social skills are a major concept, which are both taught and practiced during class. It also contributes to the emotional skills of the individual by developing a positive self-image, good body awareness, and proper attitudes toward others.

Elementary C’s program is a closely-knit collaborative one. The program is taught by two very dynamic and energetic physical education teachers, opposed to one physical education teacher which was the case at Elementary A and Elementary B. Not only have the physical education teachers contributed to the strength of the program, but also the continuous support from the administration and the whole-school and community collaboration have been contributing conditions. Administrative support and collaboration were also found to be contributing conditions to Elementary A’s program, but not to the level that was found in Elementary C’s program. The level of collaboration within Elementary C’s program is unique because it involves all of the classroom teachers, the administration, all of the physical education teachers in the district, the parents, and the community members. Examples of this unique collaboration are seen by classroom teachers incorporating physical activity breaks into the day, using physio balls as chairs, implementing Fitness Buddies which partners elementary students with high school students, and hosting Family and Community Fitness Fun Nights. All participants discussed the strength of the administrative support and collaboration as being an enabling factor. This support and collaboration stems directly from the active-engagement and willingness of the physical education teachers to continually improve the program and root it in the elementary curriculum. The size and socioeconomic status of a school does not necessarily directly correlate to the quality and sustainability of the program, as seen in this case study.
The school district is located north of Pittsburgh, PA. It is the largest school district in its respective county per square mile. The district serves six municipalities and spans over 105 square miles. Most of the district is suburban or rural. The median household income is $31,484. It has a total population of approximately 10,850 and a K-12 student population of 1,516. The district employs 221 faculty, staff, and administrators. The operating budget for the 2011-2012 school year is $20,437,510 with a per pupil expenditure of $9,263 (school district website, 2012).

There are two physical education teachers at Elementary C, one is a male and one is a female. The male teacher has been teaching physical education for twenty-three years and the female has been teaching for ten years, plus holds a Master’s Degree. These teachers team-teach, which means there are two classes of the same grade level, each class having approximately 24 students that attend each 40-minute physical education class period. They teach seven classes a day. Students receive physical education once a week. The yearly physical education budget for the 2011-2012 school year is zero. Over the past five years the yearly physical education program budget was $2,500-$3,000.

**Program Content**

Elementary C’s program teaches a variety of units, skills, activities, and games just like Elementary A’s and Elementary B’s program, but Elementary C’s program also includes a health and wellness component. Unlike Elementary A’s and Elementary B’s program, Elementary C refers to physical education as Wellness Class because all three learning domains are targeted in all lessons, health and wellness concepts are directly tied into all lessons, music and technology are used in most lessons to enhance learning and outside application, and movement and activity
is viewed as enjoyable, not competitive. The mission of Elementary C’s physical education program is to help students find a variety of ways to enjoy being physically active so that they will be able to get all of the physical, emotional, intellectual and social benefits that come with someone who is physically active. Their curriculum is based on 100% participation, 100% of the time (school district website, 2012). All participants’ responses in one way or another supported the above mission.

When participants at Elementary C were asked to tell me about their physical education program, the responses included action-based learning, fitness-oriented, variety of physical activities, interactive fitness center, standards-based, 100% participation-100% of the time, and whole-body. All participants referred to physical education as “wellness class”, because not only does their program focus on the psychomotor objectives of movement and skill, but also places a strong emphasis on the cognitive and affective aspects of living a healthy lifestyle. The male physical education teacher had this to say about the program and how it has transitioned into a high-quality program (Interview, October 28, 2011): “We have a progressive physical education program where we are movement-based, fitness-based, and wellness-based rather than sports and skills based. This changed about eight years ago…” The female physical education teacher expanded further saying the program is also standards-based (Interview, October 28, 2011):

Our program is standards-based. We base it on 100% participation, 100% of the time.

Every student is fully involved in the activities and we modify tasks if necessary. There is no standing or waiting. We create activities that correspond to what the students are working on in the classroom and connect them with wellness to meet these standards.

The principal was knowledgeable about program and understood that physical education is more than just another recess (Interview, October 28, 2011):
It’s not just about rolling the ball out and going out and playing kickball and things like that. They are teaching about the whole body and being well. It is a wellness class. People still refer to it as gym class, but we correct them; it is wellness class, but it is held in the gymnasium.

It is evident that the physical education teachers have taken it upon themselves to research the new focus and practices that should be taught in physical education and devised a plan as to how to implement such change. They have not only changed their program, but they have educated the administration, the teachers, and the community about the how and why regarding the program change. By these outside groups understanding the program change, the likelihood that they will be supportive of the program is much greater and in turn allows the program to be sustainable.

*Action-based Learning*

All participants acknowledged two relatively new additions to the physical education program: action-based learning, which is implemented at the primary levels and the interactive fitness center. Action-based learning is comprised of sequential stations designed to prepare the brain for input and processing. Students work on sensory components such as balance, coordination, spatial awareness, directionality, and visual literacy through kinesthetic movement patterns. Each station allows the student to experience challenge, feedback, and physical activity and fitness that are necessary for optimal brain function.

*Fitness-oriented*

Fitness-oriented lessons are a foundation of Elementary C’s program. The lessons engage students in practicing a skill or participating in an activity and focus on keeping students’ heart rates at a moderate to vigorous level. Furthermore, the lessons look to target one or more
of the four fitness components: aerobic capacity, muscular strength and endurance, flexibility, and body composition. An example of a lesson having a fitness-oriented approach was observed when the kindergarten students were practicing locomotor movements (running, skipping, galloping, and hopping) along various pathways, which required the student to keep their heart rate up. The heart was discussed in the middle of the lesson and the point that the physical education teachers made was that it is associated with aerobic capacity and fitness.

**Variety of Physical Activities**

The program teaches students locomotor skills, manipulative skills, combination skills, sportsmanship, leadership skills, and fitness exercises. The variety of skills and concepts taught allow students to participate in a larger variety of activities because they have learned and practiced the necessary skills. Additionally, by the program offering a variety of activities increases the likelihood that the student will participate in physical activity outside of physical education class and therefore the perception of the program is believed to have a link to childhood obesity. This transfer of skill outside of physical education class and engagement in physical activity was also found in Elementary A’s and Elementary B’s program.

For a program to be able to offer such a wide-variety of activities, appropriate equipment needs to be available. The physical education teachers, the director of curriculum, and the principal noted the amount of equipment that was available to the program in order to teach such a wide-variety of skills and units. For the most part the newer equipment has been purchased through grant money. Also the physical education teachers have taken an initiative to be creative and combine pieces of equipment or household items in order to form a new piece of equipment or create a new activity/game.
The Interactive Fitness Center

The interactive fitness center and technology has been instrumental in transforming Elementary C’s program. The interactive fitness center is the only one of its kind in Pennsylvania. This fitness center is 20’ x 40’ and contains the following equipment: 8 recumbent bikes, 2 Wii gaming systems, 4 Xavix boxing and J-mat stations, 8 DDR systems, 2 Xbox gaming systems, 8 PlayStation 2 gaming system, 12 32” high-definition televisions, and 4 heart rate handles. Furthermore, in 2008 it was featured on a local news station highlighting what the school is doing to help combat childhood obesity. Additionally the interactive fitness center was featured in a Subway commercial.

The fitness center was made possible by fundraisers and grant money. The premise behind the inception of this interactive fitness center at the elementary level is to: 1) implement technology into a fitness-based curriculum 2) allow for more flexibility and variety within the curriculum. The female physical education teacher provided a rationale for the inception of the interactive fitness center (Interview, October 28, 2011):

In the effort to help combat the childhood obesity epidemic, we had a vision of creating an interactive fitness center at the elementary level to help get kids excited about fitness. Today’s tech-savvy children who have grown up playing video games need more interactive fitness technologies to capture their interest. Adult-style disciplines like running or riding a stationary bike are “boring” for tech-savvy students and our goal is to use interactive technologies to get them excited about physical activity.

Elementary A and B incorporated some very basic technology into their program, but nothing as extensive as what Elementary C offers. This interactive fitness center has been a main contribution to students’ increased engagement in moderate to vigorous physical activity and
class time fitness-based activity. It teaches to the iGeneration and this generation requires physical education teachers to search for effective methods to teach students from this pop culture, media driven background.

Not only has technology been integrated in the interactive fitness center, but the program also uses Smart Boards and pedometers on a regular basis. There is a Smart Board in the gymnasium, which is used for health instruction and the cognitive component during physical education class. The director of curriculum discussed the need and use of the Smart Program within the program (Interview, October 28, 2011):

They actually have a Smart Board. They wanted that in the gym because it is no longer called gym class, gym is the place, but the gym is a classroom that promotes learning. They do a health component, so they do teach health throughout the physical education part. They have a white board and a Smart Board so they can do actual instruction. It is pretty cool!

The director of curriculum at Elementary C has a clearer and more in-depth understanding of the elementary physical education program compared to the directors of curriculum at Elementary A and Elementary B. She understands that the program focuses on overall wellness and teaches to all three learning domains. She shared that she has seen several lessons taught using the Smart Board and action-based learning techniques. Her understanding and enthusiasm when speaking about the program displays strong support for the program.

Standards-based

Elementary C’s program aligns with the NASPE standards. The units, skills and activities were sequenced and developed using the NASPE standards as the framework. The standards drive the objectives of the units and the assessment of student performance.
Elementary A’s program also aligns with the standards and the standards drive their six units and multiple means of assessment.

100% Participation-100% of the Time

The program is designed to include students of all abilities and provide both modifications as well as challenges to individual student skill level. Additionally, enough equipment is available so each student can have maximum practice opportunity. For example, the fifth grade class was using the interactive fitness center and there were enough pieces of equipment and video screens so every student could be participating the entire class without having to wait for a turn on. The objective of 100% participation-100% of the time is to influence and encourage a lifestyle of physical activity and at the same time develop students' self-concept and personal attitudes toward health and fitness.

Whole-body

Elementary C’s program takes on a whole-body approach in how it teaches students physical education. Skills focus on using both the upper and lower body and combining individual skill into combination movements that can be applied to a variety of activities. Furthermore, a whole-body approach not only focuses on teaching the student the importance of engaging in physical activity, but also daily healthy habits such as nutritional intake, sleeping patterns, and positive social interaction.

Elementary C’s program is different from Elementary A’s and Elementary B’s programs because they include all of the concepts and strategies mentioned above: action-based learning, fitness-oriented, variety of physical activities, interactive fitness center, standards-based, 100% participation-100% of the time, and whole-body. Elementary A’s program includes four of these six concepts and Elementary B’s program includes three of these six concepts. By Elementary
C’s program including these six concepts and strategies has contributed to the quality of their program and that was apparent when they were awarded the 2008 PSAHPERD Elementary Physical Education Program of the Year.

Changes in the Program

Elementary C’s physical education program has changed over the past five years. The three most notable changes were the inception of curriculum ideas from PE4Life, which expanded the variety of activities that focus on fitness, the implementation of technology, and collaboration. Similar changes were evident in Elementary A’s program because they too have incorporated more fitness into their program such as the Triple Threat Workout and technology in creating the geocaching unit. The program has transitioned from a traditional skills-based model to a progressive wellness-based model that also incorporates academics. For example, they have added activities such as rock climbing, dance, and outdoor adventure into their program. The traditional gymnasium has been supplemented with a state-of-the-art fitness center. Because of the physical education teachers’ extensive promotion about the program, the parent shared the following regarding what they understand about the physical education program that their child participates in (Interview, October 28, 2011):

I truly believe it is an involved program. I think back a several years ago and it was just physical education. You went in, you had physical activities, and you left. The program here encompasses a whole lot more. Not only are they concerned with physical education, but also educating them about body systems and why it is important to be active and how to be active. They use offer activities that are new and different. Through these changes the emphasis is on fitness and effort rather than competition. Similar
glimpses of this emphasis were seen in Elementary A’s and Elementary B’s program, but nowhere near the extent that is displayed in Elementary C’s program. This emphasis on fitness, effort, and technology is one of the reasons why the perception of the program is one that can be linked to childhood obesity which is discussed later in this chapter.

Due to the nature of the program and the personalities of the physical education teachers, there has been a drastic increase in collaboration. Collaboration is defined as entire school participation - faculty, staff, and students, and community participation - community members and parents. This collaboration has led to many new physical activity opportunities for students as well as faculty and staff. For example, the physical education teachers run a program called Mega Movers, which is a weight loss from for faculty and staff. This program also teaches faculty and staff how to incorporate fitness into their classroom. Fifth grade students lead Morning Exercises every morning over the announcement system so every classroom can participate. Physio balls are used instead of chairs in a number of classrooms to promote core strength and stability. They have fitness breaks where the classroom teachers lead the students through a five-minute exercise routine that incorporates the physio balls. The physical education teachers design the exercise routines for the classroom teachers and then re-enforce the routines during physical education class time.

Assessment

Elementary C’s physical education program is not just skill-based, but also cognitive-based, so therefore they have implemented multiple methods of assessment. Assessment contributes to the accountability of a program and can serve as a measure of success for a program. It is common for programs to not appropriately and authentically assess students using
multiple means because it is not required by state and some physical education teachers believe it takes up too much time. The physical education teacher at Elementary A stated the following (Interview, October 26, 2011), “…authentic assessment can take away activity time. It is hard to find a balance. It is a very difficult thing to do once a week, assess verses activity time.” Elementary A’s program does incorporate multiple methods of assessment, which include a skill check sheet, a goal sheet, tests, quizzes, and teacher observation, but are not administered or incorporated as frequently as at Elementary C. Elementary B’s program demonstrated a lack of appropriate and authentic assessment. The physical education teacher takes notes on a clipboard as to whether or not a student needs help in a specific skill area. Also she holds students accountable for appropriately participating in class and adhering to all the safety rules. She stated (Interview, October 27, 2011), “I have so short sessions [class periods], I had to essentially let that [assessment] go. It would be better if I saw them for an hour to assess them.”

Since Elementary C’s program is considered to be standards-based, appropriate assessment is useful in understanding if the skills and activities align with the standards and if students are able to reach a generic level of skill proficiency. Before the start of each new skill unit, students are given a scope and sequence guide that not only they review, but are instructed to take it home for their parents and/or guardians to review. This scope and sequence acts as the cognitive basis that students are assessed on. Cognitive assessment takes place using worksheets, homework, and quizzes. Psychomotor assessment is done through teacher observation, as well as peer-to-peer observation. The female physical education teacher described how assessments are administered and how they are an integral component of wellness class (Interview, October 28, 2011):
We base everything we do on standards to make sure it is cognitive-based with skill. Students are not based on how fast they can run a mile or if they dress for wellness class, they are not just based on their skill level, but we hold them accountable for understanding the skill and performing the skill. We do sit down every nine-weeks and we talk about body endurance, body fitness and those kinds of things. The students get a letter grade in fourth and fifth grade. They complete a ten-point homework paper, take tests, have study guides, and use Power Points. We test them because we want them to understand why they are moving and the importance of being healthy.

Additionally the parent commented on how assessments have helped her better understand how her daughter is performing in class as well as what she is learning (Interview, October 28, 2011):

A lot of the program has to do with academics. I know that my daughter brings home study guides and our signature if required once we have actually studied it with them are sent home as to when tests are going to be. I think this is great so I can keep track of what they are actually learning in physical education and not just based on dressing or playing.

These assessment measures are rigorous and multi-dimensional which helps to thoroughly assess student performance as well as program and teacher accountability. Since Elementary C’s program is standards-based, assessment is an integral component that takes into consideration student performance measures, but also program accountability. Furthermore, unlike Elementary A and Elementary B, these rigorous and multi-dimensional assessments provide parents with a more clear and detailed understanding of student performance and skill level which helps garner parental collaboration, which is discussed later in the chapter.
Perceptions of the Program Linking to Childhood Obesity

Elementary C’s program focuses on wellness, which includes physical activity, fitness, nutrition, and healthy behaviors. The focus on wellness has influenced the perception of the program being one that can have an influence on childhood obesity. All participants at Elementary C alluded to the fact that they have noticed that the elementary physical education program has created an awareness surrounding childhood obesity and has provided knowledge about the importance of staying physically active and practicing healthy habits that transfers home. Awareness, meaning students understand what obesity is, the associated risks, preventative factors, and the importance of building a healthy lifestyle starting at their young age. This awareness is the student’s ability to transfer and practice the skills and concepts that he or she learns to a setting outside of physical education class. Elementary C’s strong parent and community collaboration as well as administrative support assists in this transfer. The male physical education teacher discussed this impact in further detail (Interview, October 28, 2011):

We now consider dealing with childhood obesity a secondary subject and we include it in our wellness class. We give the students the tools so they don’t become obese and put them in that exact environment in class. We encourage them to do the same at home and share with their parents. I know they are well aware of childhood obesity and how to stay healthy.

The physical education teachers have recognized the importance of trying to combat childhood obesity and have taken a proactive approach in having physical education be an avenue of impact by refocusing the program towards wellness.

The director of curriculum shared an example of a program that motivates students to be more active (Interview, October 28, 2011): “They have the Golden Shoe Program. If students
walk so much and all participate in wellness class, then a classroom wins the golden shoe. I feel things like this have helped because they are encouraging kids to be more active even outside of wellness class.” The principal also acknowledged the fact that the program has had some type of impact on childhood obesity (Interview, October 28, 2011):

Our program has helped decrease obesity. I know more and more parents are aware of the importance of their kid being healthy and eating healthy because the physical education teachers talk about it constantly in wellness class. They have brought awareness and also they monitor their heart rates and use pedometers so students can see that they are working hard. The use of the fitness center has been huge. There is a greater awareness. You do see it. The students know a lot more.

The 3-5 classroom teacher commented on a program that coincides with physical education and is available to students as a means for promoting further opportunities to engagement in daily physical activity (Interview, October 28, 2011):

They target the kids who need extra help. They have a program class Fitness Buddies that students come in in the morning and a high school student is their mentor and they walk laps around the gym and do exercises. I have seen this really help some students and change their way.

These three examples demonstrate how administrative support and collaboration can be a key component in carrying out an elementary physical education program that can bring awareness about childhood obesity. It takes a team for schools to be vehicle to influence childhood obesity and as seen in Elementary C, this team consists of the physical education teachers, the administration, the school faculty, and the community.
Conditions that Enable

When participants at Elementary C were asked what conditions enable their school to provide a strong elementary physical education program, the top four most common responses were: 1) grant money 2) administration support 3) the physical education teachers 4) collaboration. All four of these responses align with the conceptual framework as seen in Table 7.1:

Table 7.1 Alignment of Enabling Program Conditions at Elementary C to the Conceptual Framework

<table>
<thead>
<tr>
<th>Elementary C Data</th>
<th>Conceptual Framework</th>
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<tbody>
<tr>
<td>The physical education teacher</td>
<td>Content and Instruction</td>
</tr>
<tr>
<td></td>
<td>Professional Preparation and Development</td>
</tr>
<tr>
<td></td>
<td>Financial Support</td>
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<tr>
<td></td>
<td>Adaptive Instruction</td>
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<tr>
<td></td>
<td>Assessment and Accountability</td>
</tr>
<tr>
<td>Administration support</td>
<td>Administrative Support</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Collaboration</td>
</tr>
<tr>
<td>Grant money</td>
<td>Financial Support</td>
</tr>
<tr>
<td></td>
<td>Administrative Support</td>
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</tbody>
</table>

The Physical Education Teacher

The male physical education teacher at Elementary C has been teaching in the field for twenty-three years and the female physical education teacher has been teaching in the field for ten years. They have been teaching at Elementary C for ten years. Both of the physical education teachers bring experience, enthusiasm, excitement, and innovative thinking to the program. For example, when teaching the kindergarten class the action-based learning lesson, they were instructing together and basically finished each other’s sentences. There was never miscommunication in instruction or student feedback. Both physical education teachers were actively engaged in performing the locomotor skills right along with the students. The physical education teachers would take turns pinpointing and checking for understanding. Their voice
inflection was dynamic in such a way that it first got the students excited and then the students were engaged in the lesson for the maximum amount of time. The physical education teachers’ innovative thinking was apparent in this lesson because they took ordinary, colorful beanbags and hand stitched letters of the alphabet on each one. The beanbags are used to represent the letter of the week and transformed a simple lesson into a cross-curricular lesson. Both of the physical education teachers feed off of one another’s energy and as the director of curriculum stated (Interview, October 28, 2011), “[The female physical education teacher] has taken it to a whole new level since she has been here, where her and [the male physical education teacher] are just really icons in the community and are known by everyone.”

The principal, the director of curriculum, the classroom teachers, and the parents, strongly stated that the physical education teachers are the main reason why the program is that of high-quality and sustainable. The principal has a great working-relationship with the physical education teachers and not only respects them, but respects physical education as a part of the K-5 curriculum (Interview, October 28, 2011):

For one thing we have people in the right positions. We have two fantastic individuals in our wellness program who make a point. They care about their students and their wellbeing. They reach out to parents and the community. I can’t say enough about their contributions. That is the main objective.

The director of curriculum explained the extreme passion and motivation that the physical education teachers exhibit in order for the program to be of such high-quality (Interview, October 28, 2011):

It is the teachers. I firmly believe in any classroom the effectiveness of the teacher is important. They have a true passion for what they do. They live it, breathe it twenty-four
seven and are always thinking about it. Anytime anything comes up they want to grow. They go to a variety of professional development opportunities. Hands down, it is teacher effectiveness. The teachers are building this program and making the community aware of how important physical education is.

Identical to what the principal and director of curriculum believe, the parent also believes it is the teachers that drive the quality and sustainability of the program (Interview, October 28, 2011): “Point blank, the teachers. They are phenomenal. They have gotten kids excited about physical education and they even have them talking about the curriculum in a good way!” The physical education teachers at Elementary A and Elementary B also brought a level of enthusiasm, creativity, and motivation to their programs in similar ways which was also noticed by the principal and parents.

The physical education teachers have been the influence behind the program change and content. The support that the physical education teachers have gained from the administration as well as the parents and the community has assisted in making the program change successful. Additionally the physical education teachers have been the ones to recognize the issue of childhood obesity and teach necessary skills and attitudes that can have an influence. This particular case shows how physical education teachers have not stopped learning and even after years in the profession they are still excited about teaching and improving students’ well-being. On-going professional development practices are essential for physical education teachers because best practices, theories, and concepts are constantly changing in this health-related field.

**Administration Support**

The administrative support for Elementary C’s program is the strongest compared to Elementary A’s and Elementary B’s programs. Both the principal and the director of curriculum
have an in-depth understanding of the program, from skills and activities taught to assessment measures. Furthermore the school board has an in-depth understanding of the program because the physical education teachers present to them as well as invite them to physical education related events. The physical education teachers have harvested this strong administrative support that Elementary C’s program displays over many years. Elementary A’s program displayed administrative support by the principal being actively involved in the program as well as the director of curriculum structuring physical education, specific in-service days. Both of these aspects have helped Elementary A build and sustain a quality program, but their administrative support is not on the same level as Elementary C. Strong and knowledgeable administration support can be seen in the principal and director of curriculum’s response to the question and understanding of the program content and changes over time. Both physical education teachers explained how the chain of support has been crucial for the development of the program (Interview, October 28, 2011):

Female - It starts for the top down. It starts with the school board and then trickles down to the superintendent and then to the administration. They are aligned with our values and thoughts and on the same page. Our administrators are involved and we have respect. Male - We have the support of our administration for whatever we’d like to do. They pretty much say, go for it, the sky is the limit because they see our willingness and passion.

The K-2 classroom teacher shared her opinion pertaining to administration support (Interview, October 28, 2011): “Our administration really supports the wellness program. They have jumped on board and see all the benefits. They understand how active the physical education teachers are and how much fun the students have.” Administrative support was evident in
Elementary A’s and Elementary B’s programs as well because their programs have increased their quality and have been sustainable during this time of budget cuts and program reduction. On the other hand, Elementary C’s administrative support runs even deeper because they operate as a team of physical education teachers and the small-scale, set-up of the school district has also assisted in harvesting strong support. Both physical education teachers have a preemptive personality and will not take no for an answer. Additionally, with the size of the district being smaller than the other two cases, creates a more intimate environment for understanding and buy-in.

Collaboration

The collaboration effort within Elementary C’s program is all encompassing. Not only are classroom teachers knowledgeable about the program, but also the school board, the administration, the classroom teachers, the parents, and the community. This all-encompassing collaboration was found to be the greatest enabling condition linked to the quality and sustainability of the program. Collaboration existed in Elementary A’s program, but was not as all encompassing. Collaboration was lacking in Elementary B’s program. More of the collaboration efforts at Elementary A were seen through incorporating physical activity into the classroom, hosting all-school physical activity events, and program content and objectives shared through e-newsletters. Elementary A’s program involves parents and community members, but not to the extent that Elementary C’s program does. Collaboration is exemplified by opportunities for classroom teachers such as Teacher Olympics; activities and opportunities for parents such as Family Fun Nights, and the integration of the community as a whole such as distributing monthly newsletters, partnering with local universities, presenting at regular school board meetings. The director of curriculum discussed how the physical education teachers have
Driven the efforts for collaboration (Interview, October 28, 2011): “These physical educators are icons in the community and are known by everyone. They are known for what they do and how they contribute to the community. The PTO and business groups support them.” The principal shared details about how the physical education teachers have gone above and beyond just teaching their seven classes a day (Interview, October 28, 2011):

They have Family Fun Nights throughout the year, they host a Dance-a-Thon and a Jump Rope-a-Thon. They do a huge dance celebration where each grade level is assigned a dance that meets the standards under dance and the students and classroom teachers are responsible for learning it. Teachers are really encouraged. Parents become involved because the kids need the proper dress and themes. It is a huge deal. They do Teacher Olympics where teachers compete against each other and the students. It is a whole-school event. Any chance they get they involve teachers, administrators, parents and the community.

Engaging families and community members in the physical education program is an extension of the role of the physical education teacher. The physical education teachers’ enthusiasm and commitment to the program has fostered this sense of collaboration and in turn this sense of collaboration can be seen as the overarching enabling condition for Elementary C’s program. When comparing Elementary C’s extent of collaboration within the program to Elementary B’s limited collaboration with the program, it is evident how important collaboration is to the quality and sustainability of a program.

Grant Money

Elementary C’s program has been awarded grant money from various organizations over a consistent period. The way the program has been awarded grant money and the amount that
they have been awarded in a reflection of the physical education teachers’ drive for improvement, their grant writing ability, and their pride for their program. Elementary A and Elementary B’s programs were both awarded grant money, which also has helped improve the quality of the programs. Elementary A’s program used a large portion of their grant money to implement an adventure education unit and purchase mountain bikes. Elementary B’s program used a portion of their grant money to implement components from the SPARK curriculum. All three programs used a portion of their grant money to purchase technology to use in physical education.

The physical education teachers, the principal, the director of curriculum, and the classroom teachers stated grant money and fundraising have also been contributors as to why the program has been successful and sustainable. This was also the case with Elementary A. Grants have contributed over $65,000 and fundraising as contributed over $13,000 within the past five years. This money has allowed for the program to change in such a way to offer a larger variety of skills and activities for students as well as provide students with developmentally appropriate, cutting-edge, fitness equipment.

Table 7.2 2007-2012 Grant Money Awarded to Elementary C

<table>
<thead>
<tr>
<th>Year Awarded</th>
<th>Name of the Grant</th>
<th>Money Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Wal-Mart Matching Grant</td>
<td>$1,000</td>
</tr>
<tr>
<td>2007</td>
<td>Mohawk Educational Foundation</td>
<td>$1,000</td>
</tr>
<tr>
<td>2007</td>
<td>McDonald’s</td>
<td>$500</td>
</tr>
<tr>
<td>2007</td>
<td>Hoyt Foundation</td>
<td>$5,000</td>
</tr>
<tr>
<td>2007</td>
<td>Step into Wellness Fundraiser</td>
<td>$13,000</td>
</tr>
<tr>
<td>2008</td>
<td>District Administrator</td>
<td>$30,000</td>
</tr>
<tr>
<td>2008</td>
<td>Governor’s Council on Physical Fitness &amp; Sport</td>
<td>$3,000</td>
</tr>
<tr>
<td>2008</td>
<td>Nickelodeon’s “Let’s Just Play Giveaway” Contest</td>
<td>$5,000</td>
</tr>
<tr>
<td>2008</td>
<td>Hoyt Foundation</td>
<td>$5,000</td>
</tr>
<tr>
<td>2009</td>
<td>Hoyt Foundation</td>
<td>$5,000</td>
</tr>
<tr>
<td>2009</td>
<td>Highmark Healthy High Five</td>
<td>$8,385</td>
</tr>
<tr>
<td>2010</td>
<td>Hoyt Foundation</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
A large portion of the money received went towards the building of the interactive fitness center and purchasing the equipment.

Conditions that Constrain

Even though Elementary C’s program was found to be the strongest, the program does face constraints and these constraints are similar to those that Elementary A’s and Elementary B’s programs face. Money was the found to be the number one constraint for Elementary C’s program, which was also found to be true for the other two programs. Time was found to be a constraint to the program, which was also the case with Elementary A program. Lastly, similar to Elementary A’s program where facilities were a constraint, Elementary C’s program stated that storage was a constraint. On the other hand, the 3-5 Classroom Teacher did not think that there are any constraints facing the program (Interview, October 28, 2011): “The teachers think outside the box. There are new ideas all the time in the gym. Nothing stops them. If they want something, they immediately find a way to get it!”

Elementary C has overcome their three program constraints by taking a proactive approach, which is similar to how Elementary A overcame their constraints. Both schools secured funds through grants, increased student physical activity time by introducing physical activity in the classroom and organizing after school programs, and constructed additional storage space. By taking this proactive approach towards overcoming these constraints has contributed to both the quality and sustainability of Elementary C’s elementary physical education program.
Money

Elementary C’s physical education program used to have a yearly program budget of $2,500-$3,000, but within the past five years the budget has slowly diminished to zero. However, Elementary C’s physical education teachers have taken it upon themselves to secure grants on a yearly basis. Due to the fact that money has been a constraint because the school district cut the physical education budget for the 2011-2012 school year combined with a rise in equipment prices, Elementary C has been extremely proactive in battling this constraint by taking advantage of available grants and fundraising. The director of curriculum did say that money is the program’s biggest constraint, but noted how the physical education teachers have taken it upon themselves to solve this issue of lack of funding (Interview, October 28, 2011): “I would say the budget this past year should have put a hindrance on what they normally do, but they somehow have found multiple and creative ways to dispute this decrease and carry on as though there has not been a decrease.” The female physical education teacher attributed the program’s success and sustainability to the fact that grants are available (Interview, October 28, 2011): “Money is a constraint, but we are blessed to be able to write grants and fundraise to get equipment and keep students interested.” Money was a constraint for all three programs. Even though Elementary C has not received a district-wide Carol M. White Physical Education for Progress (PEP) Grant like Elementary A did, they have received the most money that goes directly into the elementary physical education program compared to Elementary A’s and Elementary B’s programs.

Time

Students at Elementary C receive physical education instruction for forty minutes once a week, which does not come close to meeting the NASPE requirement of 150 minutes per week.
Furthermore, since Elementary C offers a standards-based, wellness program, it is nearly impossible for the program to effectively align with the standards and increase each individual student’s generic level of skill proficiency. Limited instruction time was also a constraint for Elementary A’s program. Skills, activities, and units have to be modified and/or condensed in order to cover everything within the 36-week school year. Additionally, both teachers teach seven class periods a day with two classes in each period. By the teachers teaching seven class periods a day, leaves no available time during the school day for lesson preparation, revision, or reflection. Because of this time constraint the emphasis within a class period is active engagement 100% of the time. The teachers have been forced to be creative as to how they integrate the cognitive aspect of wellness while keeping the students moving.

Collaboration was a key enabling condition for Elementary C’s program and because of this Elementary C, unlike Elementary A’s or Elementary B’s program has implemented multiple before, during, and after school physical activity opportunities. These opportunities provide students with additional physical activity time and the opportunities align with the objectives taught in physical education class. For example, the 3-5 classroom teacher shared (Interview, October, 28, 2011), “I know they do an after school program. I know they just had a kickboxing night with fourth, fifth, and sixth grade. The kids could stay after school and the parents came and they did that together.” This is just one of the many opportunities that the physical education teachers have created and organized to allow students an opportunity to meet the NASPE requirement of 150 minutes per week.

Storage

Elementary C’s program has limited storage for equipment. The interactive fitness center was built in a large storage area off to the side of the gymnasium. The interactive fitness center
has been a great addition to their program, but in turn has limited the amount of storage for equipment. Storage limits the amount of equipment they have because there is a limited area in which it can be stored at the end of the day. Storage also plays a role in the implementation and teaching of certain skills and activities. The male physical education teacher said (Interview, October 28, 2011): “We would love to have bikes and skis, more outdoor equipment, and be more progressive, but the storage is an issue.” The only storage closet is off to the right of the gymnasium and approximately twenty feet long, by fifteen feet wide. On his own time, the male physical education teacher has built shelves and installed hooks in the ceiling to more effectively use the space to store as much equipment as possible. Elementary A faced a similar program constraint because they too have limited storage space and limited facilities. Elementary A’s storage issue has been a constraint to some of the activities within the adventure unit. Large pieces of equipment are needed for some of these activities and if storage is not available, then the equipment cannot be purchased. Just like the male physical education teacher at Elementary C, the physical education teacher at Elementary A built a shed on his own time to store the mountain bikes.
CHAPTER 8 CURRICULUM ANALYSIS

The quality and sustainability of a program does not necessarily rest within the actual written curriculum, it extends far beyond that. The curriculum serves as an educational framework, but it is the content delivery and knowledge, the personality, and the appropriate teaching practices of the physical education teacher that drives this particular program. The curriculum also serves as a means of accountability for both student learning and teacher effectiveness. The curriculum was not as strong as a contributor to the quality and sustainability of a program as initially expected. In the case of Elementary C, which displayed the strongest program, the curriculum was the weakest and least influential on the program. The three curriculums displayed differences, which included the curriculum development team, the structure in addition to the sequencing and the amount of detail, and the development and implementation process. On the other hand, there were a few consistencies across all three curriculums the inclusiveness of accommodating all students, the year the curriculum was developed, the feasibility of implementation, and the alignment with NASPE standards. In this chapter, I first give an overview of each program curriculum and its link to the quality of the program. Then I provide a description of how the curriculums were analyzed. Next I discuss the differences and similarities across curricula. Finally, I conclude with consideration regarding curriculum and program change.

Elementary A had the strongest, most detailed and structured curriculum. Elementary A offers a quality physical education program that was discussed in Chapter 5. The program teaches a variety of skills and concepts that align with the NASPE standards and are carefully spelled out in the curriculum. Furthermore, Elementary A’s elementary physical education curriculum aligns with the school district’s middle school and high school physical education
curriculums. The physical education teacher as Elementary A stated the following (Interview, October 26, 2011), “We [all physical education teachers] got together so all of us now we are involved and we are doing this together [developing the curriculum]. Everybody will be doing the same things so that when the elementary schools feed into the middle school we have been doing the same stuff.”

Elementary B’s curriculum was average and so was their physical education program. The physical education teacher and the director of curriculum developed the curriculum. It includes units with correlating activities, but the activities are not grade level specific. The learner outcomes and assessment measures are general, which does not allow for specific and congruent student feedback and skill assessment. The time line for the units is stated by season, not days or weeks. The curriculum does not fully align with the NASPE standards. Elementary B’s curriculum is a framework for the program, but not a very explicit framework.

Elementary C had the weakest and most vague curriculum, yet their physical education program was the strongest. The physical education teachers were the only personnel on the curriculum development team, yet their program showed the strongest administrative support and collaboration. Even though the units, skills, and activities along with the objectives were not clearly written in the curriculum, they were understood by all study participants and spoke about in detail. This ties back to the finding that the physical education teachers are the main strength of Elementary C’s physical education program.

I carefully assessed each physical education curriculum to see if the curriculum was a strong enabling condition to the quality and sustainability of the program. I used the curriculum analysis tool that I developed based off of PECAT (See Appendix F). The first section of the analysis examines the descriptors of the curriculum and the second section evaluates the
alignment of the curriculum in regards to the six NASPE standards (NASPE, 2004):

- **Standard 1:** Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
- **Standard 2:** Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.
- **Standard 3:** Participates regularly in physical activity.
- **Standard 4:** Achieves and maintains a health-enhancing level of physical fitness.
- **Standard 5:** Exhibits responsible personal and social behavior that respects self and others in physical activity settings.
- **Standard 6:** Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

By analyzing the curricula it strengthened my findings of this study in three ways: 1) I was able to better understand some of the participants answers and make better sense of them. 2) This analysis assisted me in determining stronger, overarching themes within each case as well as across all cases. 3) It brought a deeper meaning to what I observed in class and heard in interviews.

**Differences Across Curricula**

*The physical education teacher is a key player in the curriculum development team.* The personnel and the size of the curriculum development team reflected the thoroughness of the written curriculum. In all three cases, the physical education teachers were part of the curriculum development process. Elementary A’s curriculum was developed by the school district’s health and physical education department, which consists of 16 teachers and 3 administrators. Elementary A’s curriculum was the most comprehensive. The following is
stated in the curriculum executive summary (school district elementary physical education curriculum, 2011), “We will deliver and continuously improve a comprehensive, sequential and challenging curriculum that meets the needs of all students enhanced by a full range of co-curricular and extra curricular activities.” It included a full report pertaining to the curriculum review process, major considerations, major findings, and the unit maps for each grade level. The curriculum also cited recent research to support the need for change in the program. Each unit map includes detailed essential concepts, key learner objectives, activities, materials, technology, and assessment. The comprehensiveness of this curriculum stems from the size and personnel of the curriculum development team.

In the cases of Elementary B and Elementary C, the curriculum development team consisted of two or three people. The director of curriculum and the elementary physical education teacher developed Elementary B’s curriculum. Elementary C’s curriculum was developed by the two elementary physical education teachers and then approved by the school district administration. Elementary B’s curriculum is not as thorough as Elementary A’s. It includes units, but the units are not divided by specific grade level. The units were written in such a way that they include criteria for all grades. There is no explicit grade level criterion for each lesson topic. Elementary C’s curriculum includes the generic standards according to each grade level, but does not include specific units, lessons, or forms of assessments. These two cases are examples of how the limited personnel involved have hindered the comprehensiveness of the written curriculum. On the other hand, in all three cases the physical education teachers were involved in the development, which is important because they are the ones teaching the curriculum.
The structure of the curriculum can serve as a content and teaching guide. The structure of curricula can be valuable when using the curriculum as a progressive road map for the program. A carefully organized and aligned curriculum can assist the physical education teacher in teaching the content and assessing student learning. Also the structure of the curriculum helps to link objectives across units as well as link student learning across grade levels. This study demonstrates a unique case were on one hand, the structure of the curriculum contributed to the quality of a program, but on the other hand the structure of the curriculum had limited to no influence on the quality of a program.

Elementary A’s curriculum was the most structured and provided the most detail regarding content, objective, scope and sequence, and assessment strategies. This curriculum provides a clear road map for the physical education teacher to follow in order to cover required content over the school year, assess student learning, and align with the overall program goals. Grade level, school week, and skill unit are systematically organized and included in Elementary A’s curriculum as seen in Figure 8.1.
There is a unit map for each unit as well as each grade level. The unit maps outline the timeframe for the unit, the essential concepts to be taught, the key learning objectives, the activities that align with the concepts and objectives, the materials and equipment that is required, and forms of assessment. The curriculum fully aligns with all six NASPE standards (See Appendix H).

Elementary B’s curriculum consists of seven units and 96 lessons. The curriculum map is only divided by unit, not by grade level. The map outlines the materials and equipment needed, the unit content according to standard and objectives, the skills to be taught, learning activities, and checking for understanding. The curriculum fully aligns with four NASPE standards and partially aligns with two NASPE standards (See Appendix I). The curriculum does provide enough structure and content to guide the physical education teacher in teaching the
content, but it does explicitly state what the physical education teacher should be teaching at each grade level. The way this curriculum is structured makes it difficult to see how the units and activities fit into the overall program goals as well as progress across grade levels.

Elementary C’s curriculum was the least structured. It was a general outline according to standards as to what should be taught at each grade level. It did not include specific objectives and activities that align with each skill, nor did it include assessment strategies. Elementary C’s curriculum is divided by grade level, not unit. The guide outlines the goals for that specific grade level and the learner outcomes according to the standards. Because it outlines learner outcomes according to the standards, it does fully align with all six NASPE standards. No other information is provided within this curriculum (See Appendix J). The limited structure of this curriculum provided no guide as to what units and activities were to be taught at each grade level. The female physical education teacher at Elementary C shared how her and the male physical education teacher are aware of the standards written in the curriculum, but how there are no written units or activities (Interview, October 28, 2011), “It is standards-based. We start and look at the standards and then we create activities to meet the standards.” Even though the structure of the curriculum was limited, the quality of the program was found to be the strongest out of all three cases studied.

_The development and implementation of a curriculum can influence change._ The timely manner of a curriculum review matters because it can help expose areas of strengths and weaknesses as well as gaps in content alignment. All three curriculums were developed in 2010 and recently reviewed, then revised in 2011. The revisions included a shift in content and program goals from a sport and games based model to a lifelong activities and wellness model.
Even though the revisions across all three cases were similar in that more fitness and wellness focused units and activities have been included, the ways each program went about implementing the revisions differed and are described below.

Elementary A’s Health and Physical Education Department conducted its last Curriculum Review in 2010. It is required to be used and followed by all elementary physical education teachers. During that review the curriculum development team acknowledged that they have seen a shift from their previous traditional sport-based program, to one that emphasizes fitness and lifetime activity, which they refer to as the “New PE”. The review also acknowledged that the department as a whole has made a concerted effort to continuously engage in professional development activities designed to guide curriculum planning and delivery toward meeting NASPE’s standards and implementing this new concept of physical education. One example of the implementation of these changes is seen at the elementary level where the main goal of creating healthy and active students has not changed, but the methods of attaining that goal have shifted dramatically from a traditional sport-based curriculum to one that emphasizes fitness and lifetime activity such as the Instant Activity – Fitness Activity: Triple Threat Workout that emphasizes the AMRAP (As many repetitions as possible) cross-fit training objective.

Elementary B’s Health and Physical Education Department just recently developed a formal physical education curriculum in 2010. The new director of curriculum and the elementary physical education teacher were the driving forces behind creating a formal document. The school district does not mandate that all elementary physical education teachers use and follow the curriculum, but it is highly encouraged. The foundational goal for the curriculum is: “Develop the skills necessary for physical activity” (school district elementary physical education curriculum, 2011). One example of how this new focus on skill development
for physical activity has been implemented is seen through the physical education teacher
incorporating more skill stations into her lessons. The physical education teacher at Elementary
B explained the progression for the gymnastics unit (Interview, October 27, 2011), “I go into
basic tumbling skills, forward roll, backward roll, cartwheel, handstands, headstands and the
progression through all the skills.” The Halloween Stations lesson was another example of how
the program has changed and now incorporates more individual skill development (See
Appendix K).

Elementary C’s curriculum was most recently revised in 2011. The curriculum is
extremely vague, but administration requires that it must be followed. The curriculum itself does
not explain or show specifically how this shift from a traditional sports-based program to a
wellness and standards-based program has been implemented. There are no units or activities
listed that directly link to a wellness and standards-based curriculum, but through observation of
two lessons, it is obvious (See Appendix L) that a shift in the program has been made. The
lessons focused on action-based learning and wellness concepts, teaching to all three learning
domains: Psychomotor – perform different locomotor skills: walking, running, skipping,
galloping, hopping; Cognitive – identifying letters of the alphabet; Affective – value physical
activity and different locomotor patterns outside of physical education. One-hundred percent of
the students were engaged one-hundred percent of the time which is the philosophy behind
Elementary C’s curriculum (school district website, 2012). The activities were taught in a
sequential progression. The instant activity reviewed locomotor movements and the main
activity included combination locomotor movements with special awareness and an extension of
letter learning from the classroom. This was an example of a cross-curricular lesson. The use of
cross-curricular concepts and activities is expressed in Elementary C’s physical education
philosophy, but is not expressed in its curriculum.

Similarities Across Curricula

*Inclusiveness of a curriculum provides an opportunity for all students of varying abilities to participate.* All three curriculums include “learner outcomes” that meet the needs of all students. Learner outcomes state specifically what the purpose of the unit or activity is and can help guide the physical education teacher in either modifying or challenging the task for individual students. Learner outcomes also provide a baseline for curriculum and student assessment. Each program allows for all students to participate in the least restrictive environment and offers adaptive physical education. At Elementary A, the physical education teacher provides the adaptive instruction (Interview, October 26, 2011):

> I teach adaptive instruction two times a week, half an hour of instruction which is part of their IEP. They are also included in regular class instruction and what is coming up. I try to keep them active and offer them instruction in keeping them stronger with physical activity for the rest of their lives – use the body the best way they can.

At Elementary B, adaptive physical education is split into two segments. The physical education teacher teaches students in the Life Skills Class and in the Autistic Support Class. Students receive adaptive instruction as well as inclusive instruction (Interview, October 27, 2011): “…the instruction is that anything that I am doing in the gym at their level, so a lot of it is pre-exposure. If we get into a unit and work with them individually, so they are not lost when they come in with their regular class. We can adapt and make sure they are not lost in the shuffle.” At Elementary C, the male physical education teacher explained that adaptive physical education instruction is offered every Friday (Interview, October 28, 2011), “We have an adaptive program
on Fridays. Some students have IEPs and some of them don’t. We individually work on those IEPs for each individual student. We also help other students with whatever needs they have at the time. Students are included in the regular classroom too.” In all three cases, the curriculum serves as a guide for the inclusiveness of the program, but the frequency and the instructional delivery methods of adaptive physical education differ across cases. The curriculums address the physical education needs of all students in the school, including those with disabilities and those who are not athletically gifted.

*Feasibility drives program change, which influences quality and sustainability.* The feasibility of the curriculum directly contributes to the quality and the sustainability of an elementary physical education program. If the revised curriculum cannot be implemented within the parameters of the existing program, meaning the physical education teacher understands the curriculum, the necessary facilities and equipment are available, and the content fits into the time frame of the school year, then the likelihood of implementation is hindered and the quality of the program may not be improved. The analysis of all three curriculums revealed that the feasibility of the changes in the curriculum were carefully considered because the curricular changes were observed in the lessons and discussed by the study participant.

During the development and the review of all three curriculums, the feasibility of implementation was evaluated. The curriculum development team examined the following: can the curriculum be implemented with the current physical education teachers, can the curriculum be implemented within the available instructional time, and can the curriculum be implemented with the existing facilities and equipment. It was found that all three curriculums could be implemented with the current physical education teachers because they were part of the
curriculum development team and they demonstrated a willingness to change, which is discussed in chapter 9. The way each curriculum is structured, it can be implemented within the available instructional time. The curricula state six to seven goals and units, which divided over thirty-six weeks allows for the program to offer a variety of skills within an ample amount of time. Lastly, facilities and equipment were considered during the curriculum revision. For example, Elementary A has included a five-week Adventure Education unit that includes mountain biking and geocaching. Before this unit could be placed into the curriculum the proper equipment needed to be purchased or obtained through grants. The physical education teacher at Elementary A explained this (Interview, October 27, 2011), “We purchased a whole set [GPS devices] through a grant and I got called Geo Mate, so we can do Geocaching. This year my students have done two lessons in this. And we bought some mountain bikes and I have given lessons on this.” The similar case was true at Elementary B, where the physical education teacher was able to obtain equipment through grants and include Adventure Education and technology into the curriculum (Interview, October 27, 2011), “…because of my grants, I added geocaching, I added in technology, Dance-Dance Revolution and Wii Dance.” By all three schools first considering the feasibility of this new curriculum and the implementation of new ideas, made the curricular shift from a traditional sports and game based curriculum to a lifelong fitness and activities easier.

Curricular alignment to the standards impacts the quality and sustainability. By a curriculum aligning with the NASPE standards demonstrates that the program is oriented around developing physically educated students, building skill proficiency, increasing physical activity, and establishing healthy habits. Furthermore, alignment with the standards shows that the
curriculum has been recently revised because the standards are continuously revised which in turn can increase the quality of the program. All three curriculums either fully or partially align with the six NASPE standards. Elementary A’s and Elementary C’s curriculum fully aligned with all the standards. Elementary B’s curriculum fully aligned with four out of the six standards and partially aligned with the other two standards. The curriculums’ alignment to the standards contributes to its program accountability. The NASPE standards provide a framework to help develop physically educated students and this framework helps hold each school’s program accountable for doing just this.

This analysis showed that it is not necessarily the curriculum that drives the quality and sustainability of the program. An elementary physical education curriculum can serve as a useful road map for the content and instruction of a program if there is a solid development team in place that includes the physical education teacher, the structure of the curriculum is defined and organized, the content aligns with the NASPE standards and is inclusive, and the feasibility of implementation is carefully considered. The curriculum can impact the quality and sustainability of the program to a certain degree. In contrast, a poorly structured and developed curriculum can have no impact on the quality and sustainability of a program. In this case, the quality of the program is driven by the effectiveness of the physical education teacher’s instructional strategies and content knowledge. When considering elementary physical education program change and new practice implementation, stronger efforts towards educating or developing the physical education teacher may have more of an influence on the improvement in the quality and the sustainability of a program than the written curriculum.
CHAPTER 9 FINDINGS

Even though the trend in Pennsylvania has been to reduce physical education, some schools are able to sustain their program no matter the size of the school district, the socioeconomic level of the school district, or the limited financial support for physical education. I used an evaluative framework to drive my thinking as to what conditions contribute to the three schools being able to transition their elementary physical education program from a traditional sport and games based model to a lifelong activities and wellness model. After collecting the data from the three schools and placing it in my evaluative framework, I learned that change to the framework would be necessary for future research that explores enabling conditions in regards to quality and sustainability within an elementary physical education program. My evaluative framework would best be revised in the following manner in order to better serve future research and policy recommendations. The revised framework would be a hierarchal of the strength of contributing conditions in terms of the quality and sustainability of an elementary physical education program, which is shown in Figure 9.1.

Figure 9.1 Hierarchal of Contributing Conditions
After closely examining Elementary A, Elementary B, and Elementary C’s programs and considering revision to the evaluative framework, four key findings were discovered. First, the physical education teacher was found to be a driving force behind this transition in all three cases. Second, collaboration contributed greatly to the quality and sustainability of the program in two of the three cases. Third, in the case of Elementary C, the written curriculum does not necessarily contribute to the quality and sustainability of the program. Fourth, the size and socioeconomic level of the school district does not necessarily predict the quality and sustainability of a program, which was found in two out of the three cases. These four key findings could assist other programs in trying to make a successful transition from a traditional sport and games based model to a lifelong activities and wellness model as well as contribute to policy recommendations and implementations across the board.

This study was looking for both confirming and disconfirming evidence based on the evaluative framework. Before analyzing the data across the three programs, I initially predicted that the physical education teacher would be an enabling condition because the physical education teacher has the ability to be creative and foster collaboration within the program. This prediction was based on the idea that a fairly young and vibrant physical education teacher who has been recently trained in using the current best-practices and program models would be a strong enabling condition. However, what was discovered across all three cases was that the physical education teachers are experienced teachers and have been in the profession for quite sometime, but it was their willingness to change and their engagement in professional development opportunities that led them to being a strong enabling condition. Administrative support was also predicted to be an enabling condition in terms of these three programs’ quality and sustainability. A program that has administrative support demonstrates that principals,
directors of curriculum, and superintendents understand the importance of physical education within a student’s academic experience. Administrative support was apparent in all three cases, but in two out of the three cases, administrative support ran much deeper than predicted. In these two cases, administrative support not only came from the building principal, but also the director of curriculum, the school board, the health and physical education department head, and central office. Table 9.1 displays the most common themes from the participant interviews regarding what they felt contributed to the quality and sustainability of their respective program.

Table 9.1 Conditions that Enable: Most Common Responses from Participant Interviews

<table>
<thead>
<tr>
<th>Elementary A</th>
<th>Elementary B</th>
<th>Elementary C</th>
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<tbody>
<tr>
<td>• The physical education teacher</td>
<td>• The physical education teacher</td>
<td>• The physical education teacher</td>
</tr>
<tr>
<td>• Community and parental support</td>
<td>• Administrative support</td>
<td>• Collaboration</td>
</tr>
<tr>
<td>• Administrative support</td>
<td>• Grant money</td>
<td>• Administrative support</td>
</tr>
<tr>
<td>• Common goals</td>
<td>• Variety</td>
<td>• Grant money</td>
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</table>

Table 9.2 displays the most common enabling program conditions that I observed that aligned with my evaluative framework and was further supported through my data analysis.

Table 9.2 Conditions that Enable: Researcher Observation

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<th>Elementary A</th>
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<tbody>
<tr>
<td>• The physical education teacher</td>
<td>• The physical education teacher</td>
<td>• The physical education teacher</td>
</tr>
<tr>
<td>• Collaboration</td>
<td>• Grant money</td>
<td>• Collaboration</td>
</tr>
<tr>
<td>• Administrative support</td>
<td>• Grant money</td>
<td>• Administrative support</td>
</tr>
<tr>
<td>• Grant money</td>
<td>• Content and instruction</td>
<td>• Grant money</td>
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Table 9.3 displays the most common themes from the participant interviews regarding what they felt constrained their program. As the researcher, the two common constraints I observed across all three programs were time and lack of state requirements and state assessment measures.
Table 9.3 Conditions that Constrain: Most Common Responses from Participant Interviews

<table>
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<tr>
<th>Elementary A</th>
<th>Elementary B</th>
<th>Elementary C</th>
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</thead>
<tbody>
<tr>
<td>• Money</td>
<td>• Money</td>
<td>• Money</td>
</tr>
<tr>
<td>• Time</td>
<td>• Lack of state requirements and state assessments</td>
<td>• Time</td>
</tr>
<tr>
<td>• Facilities</td>
<td>• Facilities</td>
<td>• Facilities</td>
</tr>
</tbody>
</table>

Furthermore, the outcome of this study shows how in all three cases enabling conditions can supersede constraining conditions in order for the school to produce a high-quality and sustainable physical education program. Time refers to the amount of instructional time dedicated to physical education within the elementary academic curriculum. The recommended minutes per week that elementary students should be receiving physical education is 150 minutes. Students at Elementary A receive physical education once a week for forty-five minutes. Students at Elementary B and Elementary C receive physical education once a week for forty-minutes. Pennsylvania System of School Assessment (PSSA), which is a standards-based, criterion-referenced assessment, measures a student's attainment of the academic standards and level of proficiency in reading, math, and writing. The results of these assessment measures contribute to a school district’s rating of Adequate Yearly Progress (Pennsylvania Department of Education [PDE], 2012). The pressure for students to perform well on the PSSA assessments has had a direct effect on the instructional time for “other subjects”, such as physical education. Instructional time for physical education has been limited at the elementary level at each of these three schools in order to devote more time to the core academic subjects.

Money is defined as the dollar amount given to each program in order to purchase necessary equipment and supplies. Grant money was an example of how this enabling condition can supersede a constraining condition. Grant money was a common enabling condition across all three programs because the money obtained through grants offset the budget deficit that was found to be a constraining condition. The grant money that was awarded to each program was
used to purchase either more pieces of equipment or new equipment in order for the program to implement a new unit. Collaboration was a strong enabling condition within two of the three programs. Program collaboration has helped to create further physical activity and wellness opportunities beyond the allotted physical education instructional time. Collaborative efforts include parents and community members assisting the physical education teachers in organizing after school events such as fitness fun nights, dance-a-thons, kickboxing class, and 5K runs. The parent at Elementary C is very involved with these collaborative programs (Interview, October 28, 2011): “A lot of times when they [the physical education teachers] have an activity they will invite the parents to come in. Whether it is the Step Into Wellness Program or Dance Celebration.” The principal at Elementary A described some of the extended physical activity opportunities at Elementary A (Interview, October 26, 2011):

They [students] have opportunities almost daily that they can participate during class adventure race. We do field days. [The physical education teacher] has many things going on in his class that he has parents in on a regular basis. Extracurricular activities like father son, mother daughter classes in the evenings as well.

Even though these extended opportunities are optional, both Elementary A’s and Elementary B’s programs have seen an increased participation rate in student physical activity as well as parental and community involvement.

After reviewing the literature and using an evaluative framework that would help guide this study, the initial expectations as to what would be revealed in the findings were that a quality and sustainable elementary physical program would be driven by the curriculum, the physical education teacher, the administrative support, the content and instruction, the budget, and the make-up of the school district. The study revealed that four out of the six assumptions did
contribute to the quality and sustainability of the programs. The budget was not an enabling condition, but rather a constraining condition.

There were data collection limitations in this study. Each participant was interviewed once, ranging between 20-30 minutes. If a participant interview statement was vague or unclear, that participant was contacted for clarification by email. Within the time frame that I collected the data and analyzed the data, I had face-to-face encounters with five of the participants at physical education conventions. At that time I was able to ask them for further clarification on certain statements. Classroom observations were conducted across multiple class periods and grades within one school day at each site in October 2011.

The Significance of the Study

This case study can be considered one of the first steps in starting to create crucial research links needed to better understand what specific conditions are essential to sustain a high-quality elementary physical education program. By unpacking and closely dissecting the enabling and constraining conditions associated with these three cases, I hope to generate a greater understanding of the direction that elementary physical education programs must go in order to be that of the highest-quality and be sustainable. A quality and sustainable elementary physical education program can be a contributing mechanism to a student’s understanding and awareness regarding daily engagement in physical activity, locomotor, manipulative, and combination skill building, and overall wellness.

This case study has also revealed that even though the state standards and assessment measures in Pennsylvania are vague and the level of accountability to abide by the standards is enforced at the local level, the school district, and not at the national level, NASPE, programs
can still be that of high-quality and sustainable due to strong enabling conditions. The way future elementary physical education policies are developed and implemented should take into consideration the seven enabling conditions that were found to be consistent across two out of the three cases.

In this chapter, I discuss how school size and socioeconomic level does not necessarily drive the quality and sustainability of a program. I present my findings in regards to each program’s written curriculum. I then discuss the following in relationship to elementary physical education’s quality and sustainability: physical education teachers, professional development, collaboration, administrative support, variety in content and instruction, assessment measures, and grant money. I conclude with identifying the implementations of my findings and their significance for program change.

Program Conditions

*Elementary C’s program demonstrated that the socioeconomic level of the school does not necessarily drive the quality and sustainability of their elementary physical education program.* After studying the enabling and constraining conditions across all three cases, the elementary school that has the overall highest quality physical education program was Elementary C, which paradoxically belongs to the smallest school district with the lowest socioeconomic status. The physical education program at Elementary C is the most comprehensive, the most collaborative, and the most innovative program. I chose three elementary schools that came from three different size school districts and had different levels of socioeconomic status for the purpose of seeing if those two factors played any type of role in the quality and sustainability of the physical education programs. After carefully analyzing the
interviews in multiple ways: within each school, across all schools, and across all participants according to category, and analyzing the curricula, my findings revealed that Elementary C, which resided in the smallest school district and had the lowest socioeconomic status in addition to the weakest written curriculum, exemplified a high level of quality and sustainability as well as offered the most dynamic and diverse, collaborative program. A large contributing condition to Elementary C’s program quality and sustainability is grant money. Within the past five years the physical education teachers at Elementary C took it upon themselves to carefully craft grant proposals in hopes to secure funds to maintain and improve their program. Elementary C has been awarded over $65,000 in grant money over the past five years as well as fundraising over $13,000 within the same time frame.

As demonstrated in two out of the three cases used in this study, a quality and sustainable elementary physical education program does not necessarily thrive on a well-written curriculum. It was initially expected that the curriculum would be a contributing condition to the quality and sustainability of these three programs, but what was found was the curriculum does not necessarily matter. Elementary B’s and Elementary C’s curriculum were not as well-written, designed, and organized compared to Elementary A’s curriculum. Elementary A’s curriculum did influence their program and contribute to the content and instruction. On the other hand, Elementary C’s curriculum was minimal in terms of the guidance that it provided to the program. Table 9.4 presents the degree of influence program conditions can have on the quality and sustainability of an elementary physical education program compared across all three schools. The terms strongest, strong, average, and weak are used to signify the level of influence each condition had to the program. Strongest means that particular condition had the most influence
on that particular program when compared to the other two programs. Strong means that particular condition had a degree of influence on the program, but less than being singled out at the strongest influence. Average means that particular condition influenced the program, but when compared to the other two programs it was not as significant. Weak means that particular condition did not have any degree of influence on the program.

Table 9.4 Degree of Influence of Program Conditions According to School

<table>
<thead>
<tr>
<th></th>
<th>Curriculum</th>
<th>Physical Education Teacher</th>
<th>Administrative Support</th>
<th>Collaboration</th>
<th>Grant Money</th>
</tr>
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<tbody>
<tr>
<td>Elementary A</td>
<td>strong</td>
<td>strong</td>
<td>strong</td>
<td>strong</td>
<td>strong</td>
</tr>
<tr>
<td>Elementary B</td>
<td>average</td>
<td>average</td>
<td>average</td>
<td>weak</td>
<td>average</td>
</tr>
<tr>
<td>Elementary C</td>
<td>weak</td>
<td>strong</td>
<td>strongest</td>
<td>strongest</td>
<td>strongest</td>
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Elementary C’s curriculum was found to be the weakest, containing limited detail regarding scope and sequence, units, activities, and assessment measures. In contrast, Elementary C’s program demonstrated the highest-quality and greatest sustainability because of the physical education teachers, the level of collaboration, the administrative support, and the grant money. Elementary A’s elementary physical education curriculum was the strongest and contained the most detail and program direction. The program at Elementary A showed quality and sustainability, but was not as strong as the program at Elementary C. Elementary A’s program had administrative support, but not to the extent of Elementary C’s where central administration and the school board were involved. Additionally, the level of collaboration within Elementary A’s program was not nearly as encompassing as the level of collaboration within Elementary C’s program. Elementary B’s curriculum was average and likewise so was the physical education program. The findings in this case revealed that administrative support did exist, but not to the
level of Elementary A or Elementary C. Moreover, there were limited collaborative efforts found in Elementary B’s program.

In all three cases, the physical education teachers were the voice and energy behind their elementary physical education programs. The strongest drive surrounding program change came from the physical education teachers. This strong drive illustrated a bottom-up approach to change. In all three of these cases change occurred from the bottom up. The principal at Elementary C referred to this bottom up change by saying (Interview, October 28, 2011), “…if it weren’t for those two [the physical education teachers] to start out the change, then it would not be on a larger scale with the administration over in the district office, of course people here, principals and the teachers here are supportive as well.” It was not the administration that called for a program change, but it was the physical education teachers that recognized the need for the change. The change was initiated by the physical education teachers and then supported by the building principal and central administration. The parent at Elementary B has noticed this bottom-up approach to change when speaking about the golf grant that the physical education teacher was awarded (Interview, October 27, 2011):

My daughter participated in a fourth grade grant where they got to go over and spend a day with a golf pro. She came home all excited telling me how she has a natural swing and she wants to be a golfer. I think that in that sense there is a lot of support from the administration when they see things like that happening. It opens their eyes that there are so many avenues that we could be investigating to give our kids opportunities.

The director of curriculum at Elementary A described how the bottom-up approach has been instrumental in changing the physical education program (Interview, October 26, 2011), “We
view our educators, all of them as professionals and everyone has a critical stake in the decision making or the role of their department…when we sit down at those meetings, not the most important sit on one side of the table, but everyone has a really intricate role that is powerful.”

Each physical education teacher was found to be passionate, driven, creative, and committed to continuously improving the quality of his or her physical education program. Even though Elementary B was the weakest program, the physical education teacher still possessed these qualities, but the lack of extensive collaboration efforts within Elementary B’s program is what differed. These characteristics contribute to a reflective teaching approach. Graham, Holt/Hale, & Parker (2001) describe reflective teaching as situational rather than generic. The teacher achieves success and satisfaction by using various teaching skills suited for their teaching environment. These skills include teaching by invitation, intratask variation, and differentiated instruction. Differentiated instructional methods (command, practice, reciprocal, self-check, guided discovery, convergent discovery, inclusion, divergent production, learner initiated) are used in order to accommodate different learning styles that exist among students and reach maximum cognitive and psychomotor learning retention. Different instructional methods also assist in keeping students’ attention and interest level. Judith Rink (2002) acknowledges that teaching is a process, and therefore teaching behavior should be interactive and context specific. Furthermore, teachers should posses the technical skills of teaching and know how to appropriately apply them to certain situations.

A highly effective physical education teacher is a teacher that not only understands the content of the field, but also has a special personality that can communicate and demonstrate that content to all students. This special personality is one that is outgoing, animated, and caring which was evident among all four physical education teachers in this study. The principal at
Elementary C commented on both of the physical education teachers’ personalities (Interview, October 28, 2011), “We have two fantastic individuals in our wellness program who make a point for one thing to be that teacher who cares about students and their wellbeing.” Physical education teachers that have this special personality can transform an average program into a quality program because of their teaching effectiveness and passion. Physical education teachers are not necessarily born, but rather they possess an innate love for physical activity, wellness, and kids. This love is built upon through education and professional development. The director of curriculum at Elementary C shared the following about the effectiveness of both physical education teachers (Interview, October 28, 2011):

We know the effectiveness of the teacher is important. I think they have a true passion for what they do. They live it and they breathe it twenty-four seven and they are always thinking about it. Teacher effectiveness is seen in the teachers building this program and making the community aware of how important physical education is.

The 3-5 classroom teacher at Elementary B shared why she believes the physical education teacher is the energy behind the program (Interview, October 27, 2011): “I personally think that at the elementary level, our elementary physical education teacher does a fantastic job with the resources that she has compared to how spread she is. She does a fantastic job with the kids and they all love going to gym.” The K-2 classroom teacher at Elementary A expressed the following about how the physical education teacher has contributed to the quality of the program (Interview, October 26, 2011):

I think that it is an exemplary program of what physical education should be. I think that the he [the physical education teacher] gets them moving from the very beginning and
they [students] are very motivated to go to physical education. I think that he is very knowledgeable and energetic in class.

A physical education teacher is first taught and exposed to a variety of instructional delivery methods as well as scope and sequencing of skill development within a university certification program. The teacher also engages in field experiences and practicum settings to practice the instructional methods and apply the content learned before certification is issued. Once certification is issued, it then becomes the teacher’s responsibility to analyze the school they are teaching in, study the students’ needs, assess the curriculum, and effectively apply instructional methods that teach to all three learning domains with correlating assessment measures. At the certification level teachers are given the tools for best practice, but the effectiveness as to how they apply and use these tools rests on their shoulders.

As presented in Table 9.5, all of the physical education teachers can be considered veterans in the field.

Table 9.5 Physical Education Teachers: Years of Teaching Experience and Level of Degree

<table>
<thead>
<tr>
<th></th>
<th>Number of years of experience teaching PE</th>
<th>Holds a degree beyond a B.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary A</td>
<td>10.5</td>
<td>Yes</td>
</tr>
<tr>
<td>Elementary B</td>
<td>7</td>
<td>Yes</td>
</tr>
<tr>
<td>Elementary C</td>
<td>Teacher M = 23</td>
<td>Teacher M = No</td>
</tr>
<tr>
<td></td>
<td>Teacher F = 10</td>
<td>Teacher F = Yes</td>
</tr>
</tbody>
</table>

As seen in this study, all the physical education teachers have accumulated more than three years of teaching in the field, which has allowed them to be granted tenure by the Pennsylvania Department of Education (www.psea.org, 2012). Even though these teachers have been granted tenure and have accumulated years of teaching experience, they have not disengaged themselves when it comes to program improvement. Typically, once teachers are granted tenure and continue to accumulate years of teaching in the field, the risk of teacher washout, low-sense of
teaching efficacy, and burnout are common. Washout refers to the decline in the sense of excitement and can be evident in the teacher’s ability to plan, assess, and implement new curricular ideas (Blankenship & Coleman, 2009). Low sense of teaching efficacy refers to the teacher’s decreased sense of positive influence on student learning and willing to overcome setbacks in their teaching environment (Guskey, 1988). Henninger (2007) defines burnout of physical education teachers as a change in their behavior towards students and their work. Also they begin to place less value on their role within the realm of education. The physical education teachers used for this study display the exact opposite characteristics. Surprisingly, even though all four physical education teachers are veteran teachers, they have come to accept that they need to change their teaching practices and engage in ongoing professional development in order to modernize their program. This statement holds true because of the following three reasons: 1) In all three cases, the physical education teacher’s enthusiasm and dynamic teaching ability was spoken very highly of by all participants in the study. 2) The physical education teacher was considered the strongest enabling condition because the physical education teacher themselves spoke about the variety in content, instruction, and assessment and this was also observed during their teaching. 3) The physical education teachers frequently engage in professional development opportunities that align with the best-teaching practices and the latest, innovative programming practices.

As demonstrated in these three cases, the physical education teacher is the voice and energy behind the program. The parents from each program were able to speak in great detail about how the physical education program is run, what activities are taught, and how there has been a transfer of physical activity to the home setting. The parent from Elementary A shared the following (Interview, October 26, 2011):
I am very aware about the program and know that it is really a fitness-based focus that the kids are exposed to a variety of activities…it is through newsletters, e-newsletters or even a monthly calendar that comes home which are just great opportunities for the kids to be involved in something maybe with or without family. He [the physical education teacher] is always encouraging that. Again, a wide range of topics, but I know that they are hitting all the things: cardiovascular, flexibility, and muscular strength.

The parent from Elementary B commented about how the program not only teaches students about physical activity, but also the health and nutrition components of wellness (Interview, October 27, 2011):

I think the key piece of the program is the health part, teaching them [the students] about nutrition and about why it is important to what you put into your body. Also they learn about why it is important to move and different activities that they can do. They even learn about how physical activity can be a stress relief.

The parent from Elementary C shared the following about what she understood the program to be (Interview, October 28, 2011):

I truly believe it is a very involved program. They [the physical education teachers] not only are concerned with physical education, but also educating the students as far as the physiology and body systems. They are trying to educate kids in that regards as far as why it is important to work out. It’s not just a program where they go and play kickball and then they leave class. They offer after school stuff for the kids like kickboxing, rock climbing or activities that students can actually participate in even if they don’t have the money to pay to play a sport.
The physical education teachers are the ones who have educated these audiences about the importance of physical activity and its relation to decreasing obesity and helping students form lifelong healthy habits. Also by the physical education teachers educating parents and community members about their program helps to ensure that physical education is respected and continues to hold a place in elementary schools. School and community programs that promote regular physical activity among young people could be among the most effective strategies for reducing the public health burden of chronic diseases associated with sedentary lifestyles (Guidelines for School and Community Programs to Promote Lifelong Physical Activity among Young People, 1997).

The attitudes, feelings, and perceptions regarding program revision among all four physical education teachers was recognized by administration, parents, or classroom teachers before the motion towards change was launched. This initial program revision recognition may be able to assist other programs in how to change and improve their quality and sustainability. The discrepancies among opinions and ideas about the current or even new program ideas were identified, analyzed, and addressed. For example, the program at Elementary C has dramatically changed since 2000 according to the principal. This change was manifested by the physical education teachers who then educated others about the rationale behind the change and the process involved in the change. The principal at Elementary C commented on this process (Interview, October 28, 2011):

The physical education teachers spent a lot of time looking at standards, looking at the latest trends, looking at projections of the latest things coming out and they do a lot of research. This change wouldn’t have happened if it weren’t for those two [the physical
education teachers] to start out with. They talked to the administration over in the district office, or course the people here and the teachers, and the school board.

Resistance to change by experienced teachers, who are only familiar with the traditional sports curriculum, causes the initial breakdown, which was not the case among these four physical education teachers. If physical education teachers view their input as valuable during the development process, they will be more likely to buy into reform. In all three cases studied, it was the physical education teachers that took time to assess the current program and realized that change was necessary in order for their program to have a greater influence on students’ engagement in physical activity, childhood obesity, and a students’ overall educational experience. The male physical education teacher at Elementary C shared how he became aware as to why the program needed to change (Interview, October 28, 2011):

I worked for about fifteen years with an older gentleman in an old sports-based program. I was looking for something new, something innovative. I went to workshops in the county and state level and saw some of the newer things that were coming out and also researched on the Internet about what things were coming out in physical education, Science PE, PE for Life, it was kind of interesting. So I went to the administrators and asked if I could put together a new curriculum and try some new things. I’d like to work with someone who knows more about fitness and movement and those kind of things, so we went that route. We networked with people; we were picking their brains. Now we have a network, if there is something new that comes down the line they will let us know. During the first fifteen years teaching phys. ed., I thought I was on my own island. Now through this new P.E. and movement based stuff… I can get out of this rut. It is important that people go out and learn.
The physical education teacher at Elementary A continuously strives to improve his program and adds new and different activities and units (Interview, October 26, 2011):

I want to continue to build this program so I go to conferences and I present on what I have been doing. We want kids to be active when they leave school and I want to keep my job for a long time, but you need a quality physical education program. If you don’t increase the quality, then it is not worth it. They need to be physically fit for a lifetime.

It’s hard for people to workout by themselves so that is why I started a biking unit.

The physical education teacher at Elementary B is learning how to integrate the SPARK model into her program because she feels that there needs to be a greater transfer of physical activity outside of physical education class. She is learning how the SPARK model can contribute to a student’s level of skill proficiency and the likelihood of the student engaging in physical activity (Interview, October 27, 2011): “I am integrating SPARK. I am still getting trained, but I have started to use some of the stuff. I am using a lot of the kicking and throwing progression things, especially with the primary grades.” The physical education teachers have embraced the need for program change. As demonstrated in all three cases, the physical education teachers have assessed their current programs and teaching practices and that assessment has steered them in specific directions as to how they can improve their program.

In all three cases, the physical education teachers’ consistent engagement in professional development has contributed to revising the program so it reflects a variety of fitness and wellness focused skills, activities, games, and concepts rather than only sports. The physical education teachers in this study took it upon themselves to engage in professional development opportunities and learn more as to the direction their programs need to transition in order to be
sustained in the school and to improve the quality of the program. As previously mentioned, this consistent, self-engagement in professional development opportunities comes as a surprise considering all four teachers are veterans in the field. Typically, veteran teachers are less willing to engage in professional development because they view change in teaching style, teaching methods, and content as difficult (Steffy, 2000). In this study it was seen that engagement in professional development opportunities assisted in establishing a support system that helped ease them into the new program and served as a form of professional growth. By teachers sharing their ideas with one another can lead to improvements in teaching styles and a richer learning environment for the student. This engagement in professional development opportunities is the start of a support system that should then branch out to the administration, which will help educate them about physical education and the role it plays in the academic curriculum. The principal at Elementary C is aware as to how professional development and the development of a support system has not only contributed to the physical education teachers’ knowledge, but also his own knowledge regarding the physical education program (Interview, October 28, 2011):

They [the physical education teachers] have had some opportunities to go to some big conferences and it has made quite an impact. Honestly, we have had requests from other districts to come and see our program. I can’t even tell you how many student teachers they have had over the years. It is incredible how they train, come in and out of this program and the student teachers are better off. It goes both ways. They [the physical education teachers] are giving their incredible knowledge to these students and it is nice for them to be able to talk about it and share their skills. They [the physical education teachers] will come to us and say hey this will really help our program. We submit it and then they get to go to many different places.
Physical educators have a number of professional associations and organizations that they can belong to. These associations and organizations do not necessarily allow for face-to-face program discussion. Most of the discussion is done through the Internet or at yearly conferences. Most school districts have a labeled “health and physical education department”, but there is little encouragement of teacher support systems. It is critical to investigate the process through which all participants who are involved understand the change agenda.

Professional development can be an enabling condition for improvement in the quality and sustainability of an elementary physical education program. All of the physical education teachers in this study have been continuously engaged in some type of professional development and have made it their responsibility to learn about and incorporate the latest teaching trends, activities, and ideas. There are many professional development opportunities ranging from attending state and national conferences, to attending content-specific workshops or webinars, to observing other programs. The Pennsylvania Department of Education requires teachers to complete 180 hours of continuing education every five years in order for their teaching certificate to remain active.

These three cases exemplify how the physical education teachers have gone above and beyond this minimum requirement. Examples that extend beyond the mandated 180 hours are reading monthly journals; partnering with nearby universities and being a mentor teacher; not just attending conferences, but also presenting at them; and networking within the field and across the country. All four physical education teachers have engaged in professional development opportunities that have contributed to the quality of their program, but not all of them have engaged in the opportunities to the same degree. Table 9.6 displays the type of professional development that the physical education teachers from all three schools have
engaged in during the past five years. Conventions and conferences are typically hosted over two to four days, which include multiple, interactive sessions for physical education teachers to attend starting early in the morning and running through the evening hours. The computer-based webinars are an e-learning opportunity for physical education teachers to learn about the latest issues in physical education. These webinars typically last between one to three hours and are offered multiple times per month.

Table 9.6 Professional Development Opportunities Attended from 2007-2011 According to School

<table>
<thead>
<tr>
<th>School</th>
<th>Type of Professional Development &amp; Year</th>
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<tr>
<td>Elementary B</td>
<td>Intermediate Unit Workshop - 2008 | NASPE Webinars – 2010 | SPARK Webinar – 2010 | Fuel Up to Play 60 Workshop - 2010 | NAPSE Webinars – 2011</td>
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</table>
The physical education teachers at Elementary C have engaged in the most opportunities compared to the physical education teachers at Elementary A and Elementary B. The two physical education teachers at Elementary C have attended and presented every time at the PSAHPERD Convention and the Slippery Rock Mini Convention in the past five years. Even when Elementary C’s travel and conference budget was reduced and the teachers were informed that only fifty-percent of their costs would be covered, they still attended and presented because they understand how important professional development is to the quality, sustainability, and objectives of their program. Just like the physical education teachers at Elementary C, the physical education teacher at Elementary A has attended every PSAHPERD Convention within the past five years, but he has not presented. He presented and attended the 2011 Fall PEP Summit, which is a national convention that highlights the latest and most innovative ideas, activities, trends, and instructional strategies in physical education. Due to the financial limitation to support traveling and lodging for professional development at Elementary B, the physical education teacher engages mainly in professional development through computer-based webinars, reading journals, and observation of other programs within the county. She also uses her in-service days to observe and learn about other elementary physical education programs in the state.

For physical education to be valued by others, student learning and progress should be obvious. According to Armour and Yelling (2004), continuing professional development has been shown to improve student learning. By physical education teachers understanding the importance of maximum activity engagement time and properly implementing these new
instructional strategies and delivery methods, the opportunities for students to engage in moderate to vigorous activity is increased. Additionally, this increased engagement time and practice opportunities leads to transfer of active behavior outside of the gymnasium as found in all three of the programs.

The school district and administration does not necessarily demand continuous professional development once continuing education credits are met. These physical education teachers were driven to continuously improve their program and therefore self-engage in professional development well past the minimal state requirements. This extended effort by the physical education teachers has assisted in their understanding of the necessary transition that elementary physical education programs need to make for the program to be a strong contributing means to a student’s overall wellness and daily engagement in physical activity. The physical education field is constantly changing and therefore consistent engagement in professional development helps to keep the programs such as these three on the cutting edge.

The principal at Elementary C had the following to say about his two physical education teachers (Interview, October 28, 2011), “These two teachers are lifelong learners and they are constantly looking for more information to make the program better.” The drive and creativity of these teachers is not necessarily born within them, but at the beginning there is a spark and that spark becomes ignited due to their personality and understanding of how physical education contributes to a student’s overall education and well-being. Through professional development these physical education teachers learned about new curriculum models, new and alternative teaching techniques, implementation of technology, and cross-curricular mechanisms. In the cases of Elementary A and Elementary B, this new knowledge was then filtrated into the curriculum and the curriculum was used to guide the program. The physical education teachers
then started to apply new teaching techniques and began to continuously reflect on the effectiveness of these techniques.

The physical education teachers’ engagement in professional development opportunities over the past five years has helped their programs improve. Moreover, all four of these teachers are veteran teachers and have come to understand and appreciate the impact that professional development can have on the quality of their teaching as well as the quality of their program. It is the personalities and level of passion of these four veteran teachers that have driven them to constantly improve and modernize their programs. Over the past five years the physical education teachers within all three programs shared that they have become more confident with these new practices and the new sequence of units and in turn students’, classroom teachers’, principals’, administrators’, and parents’ perception towards physical education changed. The director of curriculum at Elementary A considered physical education a core component of the elementary school program. Additionally, the principal at Elementary A understands physical education to not only include game play and activities, but also to include higher level thinking skills and wellness practices. This new perception has led to these three programs being of high-quality and sustainable even though programs across the state are being cut.

Program collaboration efforts that target a number of audiences such as administrators, classroom teachers, parents, and community members became a strong enabling condition in these three cases. Across all three programs it was demonstrated that the physical education teachers had the ability to create necessary relationships and a support system that was a facet for overcoming program constraints. These relationships and support system transformed into building a collaborative, lifelong activities and wellness focused program. The levels and efforts
of collaboration across the three programs differed. Elementary C revealed the most collaboration and it was also found that collaboration contributed significantly to the quality and sustainability of their program. Program collaboration was also a significant finding in Elementary A’s program, but not to the degree of that of Elementary C. Collaboration within both of these two programs targeted a number of audiences: administrators, classroom teachers, parents, and community members. Elementary B’s physical education teacher was able to form a collaborative network among the classroom teachers, as well as inform parents as to what was going on in the program, but not necessarily involve the parents. Moreover, Elementary B revealed a limited amount of collaboration among the program and was also found to be the weakest program in terms of quality. Collaboration has assisted in the quality and sustainability of these three physical education programs and therefore as seen through my revised evaluative framework can be noted as a strong enabling condition for future policy implementation.

The example of effective collaboration that is most striking from this case study is that of Elementary C. Elementary C resides in the smallest school district and has the lowest socioeconomic status, but has established numerous and unique collaborative relationships. This mecca of collaboration stems directly from the initial efforts of the two physical education teachers. From day one on the job, they have made continuous efforts to make themselves as well as their program known by the entire school district as well as the community. They do not just work from the time the bell rings to start the day to the time the bell rings to end the day; their day goes well beyond those hours. As described in Chapter 7, their collaborative efforts range from publishing in the school district newsletter and community newspaper to organizing a once a month after school activity for students and parents. The male physical education teacher stated the following in regards to collaboration (Interview, October 28, 2011):
Much has changed in twenty years and their [students’] needs have changed, so if we as a profession don’t change and meet the needs of the kids, we are doing a disservice to our students. We do a lot of things with Family Fit Nights, Community Kick-boxing, Dance-a-Thon, and we always invite parents to come see what we are doing. We do a lot in the community. We send in a lot of articles to the paper to show the community what we are doing. In our district newsletter we promote out different activities to the community so folks are a lot more accepting of our activities and understand them. We have to educate the parents and the community or else they will assume that it is just the same stuff they learned twenty years ago.

A parent commented (Interview, October 28, 2011): “A lot of times when they have an activity after school they will invite the parents and even sometimes the administration will come too. I really believe it is the good support for the program that has made it what it is today.”

As in this particular case, the physical education teachers took it upon themselves to share information about their program and the changes using various avenues. This is important because the more information, evidence, and rationale the physical education teachers can provide to the administration, the stronger their case is for program change and follow through. They kept floating ideas in front of the principal and the director of curriculum and refused to take no for an answer. The director of curriculum said (Interview, October 28, 2011):

I must say they [the physical education teachers] did show up to bug me. They keep in constant communication with us. They come to the school board meetings a couple times a year to present what they are doing and what is going on at the elementary level. They keep it on the forefront of your mind and it helps you to remember them and to help them.
One creative idea kept leading to another and the information about the program started to transform into events. These events needed people to help orchestrate them. Parents and community members were receptive to help because the physical education teachers already informed them about the program, the need for the program, and the direction of the program. These collaborative efforts were then noticed by classroom teachers and administration and now both classroom teachers and administration are encouraging physical activity in the classroom. The extent of collaboration is not directly related to the size or socioeconomic level of the school, but moreover it is directly related to the quality of the program. Elementary C exhibited the highest-quality program in this study.

Accountability surrounding the elementary physical education program involves monitoring the effectiveness of the content and instruction, forming collaborative relationships within the school, and appropriately assessing student performance. Accountability is another issue that needs to be considered when implementing and carrying out change. Policy and practice must take into account not just the students and teachers, but the community. Strong evidence supporting this issue of accountability was found in two out of the three cases. Both Elementary A’s program and Elementary C’s program formed strong, positive collaborative relationships with the classroom teachers, the building principal, the parents, and the community. Both of these programs made changes to their physical education content and the delivery of the content which has been effective in teaching students the skills and knowledge about staying active and leading a healthy lifestyle outside of the gymnasium. The principal at Elementary A commented on the fact that one of the changes in the program has been increased opportunity (Interview, October 26, 2011), “…the change is the opportunity for the kids to be involved, in a fun way. Kids will lose weight on their own, not only through physical education, but then
learning to be active at home.” The principal at Elementary C also shared how the change in program content and effective teaching styles have benefited students (Interview, October 28, 2011):

...[I think] more students are being aware of being healthy and eating healthy. I think they [the physical education teachers] brought in awareness and they talk about it constantly in wellness class and they monitor their rates [heart rate and step rate]...They have brought such awareness to staff...There is a greater awareness. You do see it. The kids know a lot more.

Strong collaboration efforts are also seen as a driving force behind increased engagement in regular physical activity, not just among the students, but also among parents and society as a whole. As previously discussed in all three cases, a condition within a high-quality physical education program that can impact a student’s daily physical activity level is the ability for students to transfer and apply the cognitive, psychomotor, and affective knowledge and skills beyond physical education class. In all cases participants referred to this as “transfer home” and “awareness.” Not only is the student taught the knowledge or skill, but also the knowledge or skill is taught in an appropriate context.

Additionally, the physical education teacher encourages the student to apply the knowledge or practice outside of class. The knowledge or skill is communicated to the parents as well. The parent from Elementary A states (Interview, October 26, 2011):

We are very aware through the curriculum nights and other opportunities that we have to hear about the programs to know that it is a fitness-based focus and that the kids are exposed to a variety of activities even though fitness is the focus...we receive e-
newsletters or a monthly calendar which are opportunities for the parents and their kids to talk about fitness together and get the family involved and active.

It was found in two out of the three cases that a positive school-parent-community relationship could contribute to the quality and the sustainability of a program as well as be a driving force behind encouraging increased student engagement in daily physical activity. The parent from Elementary B states (Interview, October 27, 2011):

I think it [physical education] has changed where it used to be just fun time…they have really brought in other aspects, wellness and nutrition. For instance my kids are saying, mom you can’t drink whole milk you have to buy skim milk. And they want me to come out and walk with them or jump rope with them. They have been the ones to push me to be more active.

The physical education teachers at Elementary A and Elementary C have made it a point to continually promote their program and advocate for change. They have taken it upon themselves to show off their program to parents, community members, and administrators. Typically there are only one or two physical education teachers assigned to an elementary school. Since this is the case, it has long been known for elementary physical education teachers to stay hidden in the gymnasium, ignore what is being taught in the classrooms, dodge the principal, and just do their own thing; because then again, on one else in the building has an understanding about their field. Physical education teachers can no longer segregate themselves from all other aspects of the school. They should take on the responsibility of building a relationship with as many individuals as they can, which was exemplified among the four physical education teachers used in this study. In all three cases it was collaboration that enabled
these programs to continually improve and sustain in a time of marginalization of physical education.

Administration support was gained by the four physical education teachers communicating the foundation and the specifics of their program, which in turn generated a greater understanding and awareness about the program among each program’s administration. By the physical education teachers modeling ownership, leadership, and professional responsibility of their own program demonstrated to school administrators the significance that physical education plays in the elementary curriculum. As previously mentioned, programmatic change across all three programs has occurred using a bottom-up approach. The physical education teachers initiated this bottom-up approach. The concentrated change efforts put forth by the physical education teachers across all three cases was strong enough to gain attention and buy-in from the administration and therefore did not allow a lack of administrative support to be a constraining condition to their program’s quality and sustainability.

A big reason behind struggling elementary physical education programs is the lack of administrative support. When administrative support is weak, an elementary physical education program suffers and the following domino effect occurs; administrators are not appropriately assessing teachers, teachers are not being held accountable for what and how they are teaching, and ultimately students are not being taught appropriately which decreases the chances of the transfer of knowledge beyond the gymnasium. A majority of school administrators feel as though physical education is just another “recess time.” It is common for administrators to focus their energy and program development efforts on core subjects such as math, science, and reading and are uneducated about the value of an effective elementary physical education
program. They feel the pressure of the No Child Left Behind Act, the need to raise students’ test scores, and in turn physical education is being eliminated (Allegrante, 2004). To combat this all too common trend of lack of administrative support, initial leadership of an elementary physical education program needs to stem from the physical education teacher. Elementary physical educators look for creative ways to promote their subject area amongst administrators and fellow staff members, which is not always an easy task. A mutual perception within schools is that the scarce commodity of curriculum time in school is better spent on academic subjects (Graber et al., 2008).

All of the physical education teachers established a positive and active relationship with their administrators. This positive and active relationship has helped the administrators recognize the need for physical education in the academic curriculum and its contribution to an improvement in student health and wellness. As the physical education teachers started to learn more, they began to communicate their thoughts with the building principal about the direction the program should move. The principals then began to see glimpses of program revisioning and therefore this began to not only harvest their support, but also the support from central administration. The principal at Elementary A commented on how she has seen a progressive change in the elementary physical education program and how she has actively been a supporter of the change (Interview, October 26, 2011):

We have had a complete change in our elementary physical education program from not just playing those games, those fun games that kids actively like to be involved in, but the learning and the higher level thinking skills as well as stimulating brain activities. [The physical education teacher] is using creative materials from grants. There is a
tremendous amount of support through staff development…a goal of this building is to continue with out wellness.

The principals at both Elementary B and Elementary C have too noticed a push for change coming from their physical education teachers. The principal at Elementary B has been supportive of the program because the physical education teacher has informed her about the need for change and she has communicated that with her faculty. The classroom teachers at Elementary B understand the value of physical education. The 3-5 classroom teacher commented on this value, (Interview, October 27, 2011), “We have administrators who see the value of a physical education program. We have a teaching staff that is willing to make accommodations that they need to make for class time in order to make sure the kids have that physical education program in place.” The principal at Elementary C explained how it has been the physical education teachers who have been the ones to look at the road ahead (Interview, October 28, 2011), “They [the physical education teacher] have looked at where they want to go with the program…it [program change] wouldn’t happen if it weren’t for those two to start out with, and then on a larger scale the administrative support.”

All three programs used in this study exemplified administrative support, but it was not at the same level. It was obvious that the administration understood the need and importance of physical education in the elementary curriculum because they had no intention of eliminating the program. They also supported the idea of incorporating more fitness and wellness-based concepts and activities into the program because it was found that the content in all three programs shifted from a sports and game based model to a lifelong activities and fitness model. Elementary C’s administration showed various avenues of extremely strong support for the physical education program. The principal stated (Interview, October 28, 2011):
…you have to look at where do you want to go with your program and what objectives do you have? It is because we have two fantastic individuals in our wellness program who make a point to involve administration. They not only get support from me but also from the superintendent, assistant superintendent, and the school board.

The teachers at Elementary C have been extremely proactive in gaining administrative support by advocating the contribution that physical education has on student wellness, academic performance, and obesity. According to the director of curriculum (Interview, October 28, 2011):

They are proactive and they always coming to me with new ideas. They keep in constant communication with us. They come to the school board meetings a couple times a year to present what they are doing and what is going on at the elementary level. They keep it on the forefront of your mind and it helps to remember to help them and why what they do is so important. Their website is amazing is the main way everyone knows what is going on.

The 3-5 classroom teacher further emphasized the strong administrative support by saying (Interview, October 28, 2011): “Our administrators support them and encourage them. They jump on board because they see the benefits.” Elementary A’s principal was an active supporter of the program and participates in the program. The director of curriculum was supportive of the program, but did not have an in-depth understanding of the program. She described the program as K-12 inclusive and teaching lifetime activities that build confidence. She could not necessarily speak in terms of specific unit objectives, activities, and assessment measures. This limited understanding of the program was also the case at Elementary B. The director of curriculum at Elementary B discussed that the curriculum has changed, but was not aware of specific changes.
He did state that his background was in math, not physical education. The principal at Elementary B supports the program, but was not an active participant like the principal at Elementary A.

The physical education teacher understands the magnitude of physical education within the elementary curriculum, but it is common for administrators and other teachers to have a pessimistic view regarding physical education and the importance it plays in a student’s overall academic experience. If this is the case then it can become a struggle for the physical education teacher to uphold the subject and be a leader within the school. An initial step to resolve this problem is for the administration to inspire the teacher to be a leader within the school by encouraging them to be creative and to use innovative ideas to improve and expand the program. Strong and effective administrative support is a two-way street. Administration support is gained by the physical education teacher communicating the objectives of their program, which in turn generates a greater understanding and awareness about the program among the administration. Once the administration has an understanding and awareness about the program then the likelihood of them encouraging the physical education teacher to be a leader is greater.

Leadership from the physical education teacher and support form the administration can be an avenue to improve the quality of the program and strengthen the sustainability of the program. Prior to teachers accepting any type of leadership role and responsibility that bears promise of progress, they must accept their administration as a body of leaders (Jordan, 1959). The physical education teacher at Elementary A views his administration as a body of leaders and knows they are supportive of the program (Interview, October 26, 2011):
I am supported by my administration without a doubt, by my Chairperson, and by other people within my department because we are all interested in working toward the same goals… I am able to run my own program and be in charge, which I love.

If administrators show genuine interest and concern in the teacher as a professional and as a person, then the teacher will be motivated to continuously improve the quality of their teaching and their program. Furthermore, strong administrative support is connected to professional development, which in turns encourages the physical education teacher to engage in activities and training that add to the value of the program.

In all three cases it is apparent that this concerted effort to engage in professional development has been noticed by administrators, school faculty, and the community and therefore these new ideas that have been learned have led to a positive change in the program as well as increased collaboration within the program. Strong administrative support for an elementary program is two-fold. First, by the teachers engaging in professional development opportunities, they gain a much higher level of respect for the subject they teach because it allows variety, diversity, and change to be infused into their classes. This change is noticed by the administration because students, classroom teachers, and parents talk about the change. In these three cases the physical education teachers established a positive working relationship with their principal by presenting their reasons and knowledge why programmatic change is necessary and avenues that can lead to positive change. In the case of Elementary A and Elementary C, the relationship with the principal was extremely evident because the principals knew exactly what units, objectives, and activities were being taught in the program. Additionally, they have taken an active role in being part of teaching within the program. This type of positive and active relationship has helped the principals at these schools recognize the need for physical education
in the academic curriculum and its contribution to an improvement in student health and wellness.

Variety within the content and instruction was a key enabling condition related to the quality and sustainability of these three programs. The variety within the content of all three programs includes different skills, activities, and games that either teaches a new concept such as geo caching or integrates one or more of the four fitness components. The inclusion of such a variety of skills, activities, and games has assisted all three programs in their transition from a traditional sport and game based model to a lifelong activities and wellness model. Furthermore, by each school incorporating a variety of content, which includes new concepts, forces the physical education teachers to vary their instruction in order to appropriately and effectively teach the students. Elementary A’s program covers six units throughout the school year: adventure education, aerobic fitness, creative movement, individual activities, muscular fitness, and team sports. Elementary B’s program covers seven units: team sports, individual sports, lifelong activities, tag games, fitness, themed activities, and dance. Elementary C’s program is wellness oriented and includes skill and locomotor development, action-based learning, cross-curricular concepts and inclusions, and health.

Elementary A’s and Elementary C’s programs are similar because they emphasize fitness, integrate health concepts, incorporate technology, and fully align with the NASPE standards. The physical education teacher at Elementary A described the program as being dynamic (Interview, October 26, 2011), “The program here is dynamic which integrates health topics and fitness…fitness is combined with a number of activities.” He went on to describe the different units, activities, and equipment that are included in the program such as: geo caching, outdoor
activities, triathlons, scooters, muscular fitness, aerobic and anaerobic workouts, cross-fit, suspension trainers, running games, dance, Railyard Fitness, body composition, tag games, nutrition, and yoga (Interview, October 26, 2011). The female physical education teacher at Elementary C described the program as being progressive (Interview, October 28, 2011), “We have a progressive physical education program where we are movement based, fitness based and wellness based rather than sports. We use a lot of different music and different things in our program to enjoy movement and activity in a non-competitive manner.” Elementary C refers to their program as “Wellness Class”.

Changes to the physical education content and the delivery of the content has been effective in teaching students the skills and knowledge about staying active and leading a healthy lifestyle outside of the gymnasium. In addition to both of these programs containing similar content, the physical education teachers at both of these programs displayed similar instructional delivery techniques and were an active participant throughout the lesson. The lessons had the students engaged immediately in a fitness-oriented instant activity. The physical education teachers provided simple instructions that did not require the students to stop participating in the activity. The physical education teachers put an emphasis on keeping the students’ heart rates up for a majority of the lesson. Appropriate equipment was provided for each student to allow for maximum practice opportunities. The physical education teachers provided specific and congruent feedback to individual students. The physical education teacher at Elementary A shared the following about his instructional delivery style (Interview, October 26, 2011), “I have a mic, audio control and I can operate the recorder anywhere in the gym. I can keep moving and give feedback while I am teaching.” The male physical education at Elementary C explained his instructional delivery style and philosophy (Interview, October 28, 2011):
We use a variety of methods and different ways. We have done self-discovery, command stuff; sometimes it’s trial and error with the students. We like to make sure that each student has a piece of equipment. No lines, no elimination. We like to try to make sure that the instruction is geared to the grade appropriate for that group of students.

Elementary B’s program also offers a variety of units and activities and includes fitness-oriented activities, but is different than Elementary A’s and Elementary C’s programs. Elementary B’s program does not fully align with the NASPE standards. Also the program still includes sports, but its focus is on basic skill development, not so much on the tactical game play. The physical education teacher at Elementary B described the program in the following way (Interview, October 27, 2011):

It stresses locomotor memories. It stresses basic skill acquisition. In primary it is a lot of skill games and then at secondary it is more incorporated into sports. I added in geo caching. I added in Dance, Dance Revolution and some of the gymnastics and rhythmic movements and some of the lifelong sports…bowling, golf, badminton, things that these kids see throughout their life.

Elementary B’s program does offer variety, but because of this extensive variety, it does not allow for ample time per unit and activity for students to reach a level of proficiency. There are ninety-six lessons included in the program and the sequencing of the lessons does not necessarily flow as discussed in Chapter 8. An example of this lack of unit sequencing and skill building can be seen when first a fitness unit is taught followed by tag games, ultimate Frisbee, and then orienteering. Elementary A’s and Elementary C’s programs sequenced the content of their lessons in way that continually builds on one and another. For example at Elementary A, the
first primary unit that is taught is Individual Activities: Manipulatives, followed by Adventure Education: Cooperative Initiatives, then Creative Movement: Rhythm and Educational Gymnastics, followed by Aerobic Fitness: Movement Skills, then Muscular Fitness: Functional Resistance Training, and the last unit is Team Sports: Low Organized Games.

Moreover, the instructional delivery from Elementary B’s physical education teacher was different compared to the physical education teachers at Elementary A and Elementary C. The students at Elementary B were not immediately engaged in an instant activity. The physical education teacher verbally explained and visually demonstrated each station, but did not emphasize skill cues. This instruction took approximately five minutes. The students in were actively engaged in the lesson after the directions were given. Unlike the physical education teachers at Elementary A and Elementary C that gave students specific and congruent performance feedback, the physical education teacher at Elementary B only offered general feedback. Also she did not provide a closure to the lesson, which is important because it checks for student understanding and places meaning on the lesson for engagement beyond physical education class.

The variety within all three of the programs has all been an influence on the amount of time a student is engaged in physical activity throughout the day. Activities or an extension of concepts and skills learned in physical education are being incorporated in the classrooms at all three schools. The 3-5 classroom teacher at Elementary C shared how physical education lessons are being incorporated into the classroom and specifically in her classroom the students use physio balls, (Interview October 28, 2011):

On the morning announcements there are two students who tell you what activities you are going to do and then they do it and we do it alone. We just sort of modify. If they do
sit-ups on the floor, we sit on the balls and do sit ups. If they do jumping jacks we stay on the balls and move our arms and legs.

The K-2 classroom teacher at Elementary B also shared how physical activity is incorporated into her classroom, (Interview, October 27, 2011), “We carry things over into the classroom sometimes. We have a physical activity part of the day where we will just do a little bit of our own movement.” The variety within the physical education content exposes students to different skills and movements, which then expands the opportunity for them to engage in these different skills and movements outside of physical education class. Variety within the content and instruction as well as transitioning from a sport and games based model to a lifelong activities and wellness model has led to these three programs being of high-quality and sustainable even though programs across the state are being cut.

*Various forms of student assessment contributed to the accountability of these three programs and also served as a measure of success for these programs.* Elementary A’s and Elementary C’s programs use multiple forms of assessment such as a skill check sheet, a goal sheet, tests, quizzes, and teacher observation, to monitor student learning and progress which in turn holds the program accountable for what content is being taught and how the content is being taught. Elementary C’s program had the most comprehensive measures of assessment. The program uses multiple forms that assess all three learning domains as well as communicate progress to the student and the parent. The principal at Elementary C spoke about how the assessment measures can inform the parents about student progress and how the measures assess all three learning domains (Interview, October 28, 2011):
They [the physical education teachers] post on a website for one thing. They have set up a website with their documents in there. Parents can log in and see what is going on. They can see what is due and what has been turned in. They give the students a deadline, a large amount of time to get their homework done, and then it is due. You will see a stream of kids going in and out of there [the gym] turning in their homework. So it is responsibility. It is not rated on who ran the fastest and who went through the obstacle course the quickest, it is the whole package.

Elementary A incorporates multiple forms of assessment into the program, but it is not administered as frequently as in Elementary C’s program. The physical education teacher described some of the assessment measures he uses, but also commented on how these measures can be time consuming (Interview, October 26, 2011):

> We do these tests and then a post-test. It would be nice to have that in a database…they [students] get assessed everyday through skills. They get assessed on the aerobic video. We make a video and they get graded. Authentic assessment is that is takes away activity time. It is hard to find a balance. It is a very difficult thing to do once a week assess versus activity time.

Elementary B’s program demonstrated a lack of appropriate and authentic assessment. The main form of assessment used in Elementary B’s program is teacher observation and progress reports. Teacher observation only assesses the psychomotor domain and does not provide students with a written evaluation. Teacher observation is when the physical education teacher observes the student performing a skill or executing a strategy. The progress reports distributed at Elementary B do not specifically inform the student or the parent about strengths, weaknesses, or areas for improvements. The progress report only states if the student is
performing either above a generic level of skill proficiency, at a generic level of skill proficiency, or below a generic level of skill proficiency using a letter as a designation. The parent at Elementary B commented on this (Interview, October 27, 2011), “I don’t know that they are actually gauged on how they have progressed through.”

By incorporating student assessment into a program not only allows the student, the teacher, and the parent to understand individual progress, but also helps a program understand its strengths and weaknesses. If a majority of students are not able to reach a generic level of skill proficiency in throwing overhand, then the lessons that are being used to teach this skill are insufficient or the way the physical education teacher is teaching the lesson is not appropriate. Student assessment measures can help hold a program accountable for what is being taught and how it is being taught. As seen in these three cases student assessment assisted in helping the physical education teachers communicate meaning about the content they were teaching and their instructional methods to administration, classroom teachers, and parents. Furthermore, student assessment measures have helped expose areas for content reform, integration of different instructional strategies, and implementation of new equipment within the program.

*All three programs have taken a proactive approach in combatting a budget restriction by researching, applying, and receiving grants.* This was an extremely strong finding because the grant money that has been awarded to each of the programs has helped negate the number one program constraining condition across all three programs: money/financial support. This is a case of a program constraint being overcome by an individual and furthermore the program gains sustainable, administrative support. By the physical education teachers taking time to research available grants, being able to carefully craft a grant proposal, and being successfully awarded
grant money demonstrated to the administration the physical education teachers’ leadership and the importance of the subject within the elementary curriculum. Applying for grant money is a choice that a program makes and when a program applies for a grant, they are not guaranteed to be awarded money. All four physical education teachers have taken it upon themselves to find creative ways to offset the program budget deficit. They have chosen to apply for grant money and have been awarded grant money over the past five years and in turn the sustainability of the physical education program has been strengthened as well as the support from the administration to keep the program. This case study revealed that the motivation and passion that the four physical education teachers had towards the improvement and sustainment of their program, translated into them taking a proactive approach to not only finding grants that would fit their program needs, but also writing the grants and ultimately being awarded the grant money. With the frequent and severe public school budgets cuts occurring in Pennsylvania, schools are being forced to find alternative financial support routes, especially in elementary physical education. Grants have been a major enabling condition for these three elementary physical education programs to be of such quality and sustainable.

Elementary C’s program faced the largest budget reduction. Over the past five years the yearly physical education budget for Elementary C was $2,500-$3,000 for the program. For the 2011-2012 school year the program budget was zero. Even though Elementary C’s program was faced with a budget of zero, the physical education teachers were able to obtain enough grant money to offset that loss and furthermore, the program was found to be the strongest in terms of quality and sustainability compared to Elementary A’s and Elementary B’s program. This was a case where the lack of funding could have been a severe constraining condition if it was not for
the physical education teachers taking the initiative to obtain grant money to continue with program improvement.

Elementary A and Elementary B also faced program budget cuts. Elementary A’s program budget for the 2011-2012 school year was reduced to $250 for the entire program and Elementary B’s program budget was reduced to $500 for the entire program. As with any entity in education, money is a driving proponent in order to improve the quality and allow for sustainability. Physical education is facing elimination within the elementary curriculum and now pairing it with minimal financial support makes matters even worse. On the other hand, it is schools such as Elementary A, B, and C that have taken a proactive approach in combatting this budget restriction issue by researching, applying, and receiving grants.

Last year the House Education and Workforce Committee recommended that changes be made to NCLB, which in turn had a direct effect on the quality and sustainability of physical education programs. These recommendations included reducing funding for physical education programs and even eliminating physical education programs from the school curriculum. It was specifically recommended to eliminate forty-three school programs, including the Carol M. White Physical Education Program, which gives physical education grants to school districts. With public schools cutting back on spending for physical education, some members of Congress intervened because they made it clear that they are worried that the nation’s schools are churning out too many fat kids. In December 2011, Congress signed off on $78.8 million in grant money for the 2012-2013 school year. Many companies and organizations award grant money towards physical education such as Nike, High Mark, United States Tennis Association, United States Golf Association, and Wells Fargo, just to name a few. As described in each case study chapter, all three programs were awarded multiple grants over several years to offset their budget deficit.
Even when grants are awarded, they may not completely cover the costs of implementing a new unit, activity, technology, or equipment so therefore physical education teachers may be faced with the challenge of securing funds from other sources such as fundraisers and clothing sales. For example, both Elementary A and Elementary C organized clothing sales where a portion of the profit goes into improving the elementary physical education program. These clothing sales are twofold because not only are they raising money for the program, but it is also a way to promote and spread the message about physical education. Elementary A’s physical education program also hosts road races such as the Pump House Run and the District-wide 5K. In 2007, Elementary C started “Step Into Wellness” which is a step-a-thon that raised over $13,000 to help fund their interactive fitness center. Because of the motivation and passion these physical education teachers have towards the improvement and sustainment of their program, the money awarded through grants has helped negate the number one constraining condition: money/financial support. Even though these four veteran physical education teachers have just recently been faced with financial constraints, they have taken a proactive approach in finding creative budget supplements and therefore the reality of a limited budget has been minimized when it comes to improvement to their programs.

Implications for Program Change

*Physical education should reexamine their approach to change and carefully consider how physical education can contribute to the overall health, wellness, and productivity of the student.* I argue that the key findings from these three cases have assisted in amending my initial evaluative framework into one that can better assist elementary physical education programs in implementing new policies to create a higher quality and sustainable program. By amending my initial evaluative framework into a hierarchal one as previously shown in Figure 9.1, the physical
education teacher was found to be the strongest enabling condition, followed by collaboration, and then grant money. By understanding how and why these three conditions had the most influence on the quality and sustainability of the three programs studied, can better explain the need for program revisioning. In order for revisioning of elementary physical education to happen and quality and sustainability to improve, the following must be considered: Physical education needs to assess the current implementation and change process. With the rising childhood obesity rates and the lack of respect for physical education, physical educators, administrators, classroom teachers, parents, community members, and policymakers should understand the process and the rationale for the change. Attention should be given to growth, research and support systems, teacher input in development, efficacy, meeting the needs of all students, and practical application. Program revisioning demands multiple methods of investigations to uncover key issues relating to teachers, district administrators, and policymakers (Reys, Reys, Lapan, Holliday, & Wasman, 2003).

Program goals should be established such as the ones found in Elementary A’s and Elementary C’s programs. Both of these programs established the goals of integrating wellness into their programs as well as an extension of physical activity opportunities for students beyond physical education. The process of establishing these goals and implementing change did not occur immediately, but rather it was an interactive process which first included the physical education teacher, then second the administration, and third the parents and community. In this case study, the physical education teachers recognized a need for change and initiated the movement. The physical education teachers assessed the current program goals and objectives of their program. Next they engaged in professional development and learning opportunities that would assist them in understanding what specific change was needed and the implementation
process. Once the physical education teachers had a more clear understanding about the revision, they then outlined their ideas regarding the revision in detail and presented to the administration. The administration supported the program revisioning and the programs began to change and improve their quality and sustainability within the elementary curriculum. Furthermore, the parents and the community began to support the changes in the program because they were beginning to see positive benefits impacting students’ lives.

In all three cases change has occurred over time and continues to occur. Different degrees of change have been implemented into all three programs and have continued to be implemented. During this period, stronger administrative support has been harvested. The male physical education teacher from Elementary C states (Interview, October 28, 2011): “We have a progressive physical education program…wellness based rather than sport-skills based. This change has been happening over the past eight years.” The director of curriculum at Elementary B states (Interview, October 27, 2011), “Every five years we are looking at a different curriculum to keep up. There are always changes needed. We meet to talk about the curriculum and having the teachers sit down and think about this is very important to see how they progress and expect kids to grow.” In order for successful and positive change to happen within a program the following change mechanisms should be considered: the three pillars of how to exert change: regulative, normative, and cognitive (Meyer, 1977; Scott, 1987), accountability, , fidelity, and inquiry need to be considered. As seen in all three cases there is a strong backing from school administration and a high-level of collaboration. This strong backing from the administration was established by the physical education teachers communicating to their administration exactly what change needed to occur and supplying them with the reasons and
background knowledge as to why. The female physical education teacher at Elementary C stated (Interview, October 28, 2011):

Our program has changed over the years, we are more proactive… and so I think changing their perceptions of what we do in terms of phys. ed…I try to communicate with the administration as much as possible and tell them about our program. I am all about getting the word out.

Additionally, the physical education teachers invited the administration into their program and an example of such is seen at Elementary C. The principal stated (Interview, October 28, 2011):

They do an exercise routine in the morning for the students over the morning announcements and I am involved… they started a program where students showing best practice in stretching and exercising and we video them and it is broadcasted live and I go into the different classrooms and model it too… they always invite me and other administrators to family nights and dance-a-thons. I would say I am very involved.

In all three cases the program goals and objectives have been outlined in detail and presented to the administration by the physical education teachers. By the administration being able to visually see the program sequence and alignment has played a large role in them gaining a deeper understanding about the alignment and process of change in the elementary physical education program.

Conclusion

In summary, I have highlighted the state of elementary physical education on the national and state levels (Pennsylvania), the enabling conditions that could position elementary physical education as an avenue for encouraging a physically active lifestyle, and how constraining
conditions can be overcome in order to have a sustainable program. “Schools can become one of the nation’s most effective weapons in the fight against obesity by creating an environment that is conducive to…physical education” (Story et al., 2006, p.130).

The elementary physical education programs used in this case study recognized a change was needed in order for elementary physical education to be a respected academic discipline as well as have an impact a student’s well-being and furthermore society as a whole. Programs that take on this notion of revisioning commit to a willingness to invest into a student’s health and wellness. Program revisioning includes transforming the content and instruction to one that offers a variety of skills, movement patterns, and wellness concepts; creating a an open and collaborative environment among school faculty, administration, parents, and community members; encouraging and supporting physical education teacher professional development, and researching and applying for available grant money as well as outside financial support. By programs taking on this willingness of investment, requires each individual involved to provide extra energy towards program change. The physical education teacher alone cannot create and implement this program transition effectively. It needs to be a team effort that is supported from the all aspects: the school board, the administration, the building principal, the classroom teachers, the parents, and the community members.

Health, wellness, and fitness have a significant influence on a student’s overall quality of life. Even though new technologies and medical advancements are rapidly growing, unfortunately the American society, and more so the younger generation, is experiencing historic levels of in activity. The preventative benefits of proper nutrition and regular physical activity have never been more important, especially starting at a young age, therefore the quality and
content of an elementary physical education program can be an essential mechanism and contributing factor in increasing activity levels.
References


education’s contribution to young people’s physical activity levels. Health Education Research (20)(1) 14-23.


APPENDIX A: RECRUTIMENT EMAILS

Email to recruit/grain initial permission from the principals at Elementary A, Elementary B, and Elementary C:

Dear __________,

I am a PhD Candidate at Penn State University and I am interested in using your elementary physical education program as a sample for my dissertation research. The purpose of my study is to unveil what constitutes a high-quality elementary physical education program as well as what allows it to be sustainable. This is a qualitative study, using two cycles of data collection which will include semi-structured interviews and observation. Furthermore, I am looking to generate a better in-depth understanding and appreciation as to the direction that elementary physical education programs need to head in order to be a contributing, preventative factor in childhood obesity.

If you feel as though your elementary PE program fits the needs of my study and you are interested in participating in my research, please let me know. This is just a general overview of my research, if interested I will pass along particulars and a timeline of my study.

Sincerely,

Principal Investigator: Alison Weimer, M.Ed.
Instructor in Kinesiology
PhD Candidate in Educational Theory and Policy

Email to recruit faculty and administration from Elementary A, Elementary B, and Elementary C participation:

Dear __________,

I am a PhD Candidate at Penn State University and I am interested in using your elementary physical education program as a sample for my dissertation research. Your building principal has granted initial permission for your participation in my study if you should choose to participate.

The purpose of my study is to unveil what constitutes a high-quality elementary physical education program as well as what allows it to be sustainable. This is a qualitative study, using two cycles of data collection which will include semi-structured interviews and observation. Furthermore, I am looking to generate a better in-depth understanding and appreciation as to the direction that elementary physical education programs need to head in order to be a contributing, preventative factor in childhood obesity.
If you feel as though your elementary PE program fits the needs of my study and you are interested in participating in my research, please let me know. This is just a general overview of my research, if interested I will pass along particulars and a timeline of my study.

Sincerely,

**Principal Investigator:** Alison Weimer, M.Ed.
Instructor in Kinesiology
PhD Candidate in Educational Theory and Policy

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**Email to recruit parents from Elementary A, Elementary B, and Elementary C:**

**The Elementary Physical Education Program: Quality and Sustainability in Pennsylvania**

The purpose of this research is to document specific enabling and constraining conditions regarding quality and sustainability of elementary physical education programs in schools in Pennsylvania.

Attention Parents:

I am a PhD Candidate at Penn State University and I am interested in learning more about your perspective regarding your child’s elementary physical education experience. Your participation in my study will be used for research purposes only.

The purpose of this research is to document specific enabling and constraining conditions regarding quality and sustainability of elementary physical education programs in schools in Pennsylvania. Furthermore, I am looking to generate a better in-depth understanding and appreciation as to the direction that elementary physical education programs need to head in order to be a contributing, preventative factor in childhood obesity.

This is a qualitative study, which means I am looking to conduct a 45-minute, one-on-one interview, either in person or over the phone that will be recorded. If you are interested in participating in my study, please let me know.

Sincerely,

**Principal Investigator:** Alison Weimer, M.Ed.
Instructor in Kinesiology
PhD Candidate in Educational Theory and Policy
APPENDIX B: IRB APPROVAL

The Office for Research Protections (ORP) has received and reviewed the above referenced eSubmission application. It has been determined that your research is exempt from IRB initial and ongoing review, as currently described in the application. You may begin your research. The category within the federal regulations under which your research is exempt is:

45 CFR 46.101(b)(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Given that the IRB is not involved in the initial and ongoing review of this research, it is the investigator’s responsibility to review IRB Policy III “Exempt Review Process and Determination” which outlines:
- What it means to be exempt and how determinations are made
- What changes to the research protocol are and are not required to be reported to the ORP
- Ongoing actions post-exemption determination including addressing problems and complaints, reporting closed research to the ORP and research audits
- What occurs at the time of follow-up

Please do not hesitate to contact the Office for Research Protections (ORP) if you have any questions or concerns. Thank you for your continued efforts in protecting human participants in research.

This correspondence should be maintained with your research records.
APPENDIX C: EXAMPLE OF THE LESSON OBSERVATION CHECKLIST FOR

ELEMENTARY A

1.) Objectives:
Aligned with State Standards:
10.4.3 C- Know and recognize changes in the body responses to physical activity. Breathing and heart rate.
10.4.3 A- Engage in activities that promote fitness and well-being.
10.5.3 F- Recognize simple game strategy and following rules of play.
10.5.3 A- Recognize and use basic movement skills and concepts.
   a. Psychomotor
   b. Cognitive
   c. Affective
   d. Technology when applicable – use of wireless microphone for instruction; large digital countdown clock

2.) Equipment/Supplies:
   a. Distribution
   b. Amount of equipment

3.) Instant activity
Guard the Cookie Jar – Equipment: 4 poly spots (cookie jar) and 4 bean bags (cookies)
How to play: The 4 poly spots are placed on the ground around an area. A bean bag is placed on top of each poly spot. Four players are the guards and they stand over the “cookie Jar”. Players try to grab cookie without getting tagged. If they successfully grab cookie then they become the new guard. If tagged they must go to new cookie jar.
Fitness Activity
Cross fit Workout “The Triple Threat” –
This is an AMRAP activity – Do as many rounds as you can for TIME!
Body Rows (Suspension Trainer)
Squats
Star Jumps
   a. Designed to improve skills
   b. Related to objectives and activity
   c. Developmentally appropriate

4.) Lesson Content Development
   a. Introduction - Discuss cardiorespiratory fitness- how to increase fitness and FITT. Feel hear beat and discuss its pumping action. Happy heart. = Sweaty in the head, huffy puffy & red in the face
   b. Skills/Activity/Tasks Development
      i. Progressions – logical
ii. Review the different parts of a mountain bike, how to wear your helmet properly, how to adjust your seat, the importance of balancing, scooting and coasting, steering, stopping

c. Managerial Strategies:
   o Organization of space, equipment, students: Students choose their helmet off the hook in the shed then they line-up according to height; sort the bikes depending on height. The road and paths are connected; Building Ramp Loop-students will travel up the ramp and then follow the building around the tree near the art room and then back down the side wall
   o Road and Turing Circle- students will travel up and down the road at the side of the school
   o Peebles Elementary Playground- Students will ride along white line forming a circle.
   o Path on grass baseball field- Students will ride along the grass atop the small hill, center field, along the fence of the right field fence, and up the gravel path.

   Method for assigning students to groups: Students will be placed in groups to stay with throughout their path rides. This will help ensure safety while riding.
   Group #1: Confident riders
   Group #2: Middle level riders
   Group #3: Lower level riders
   Transitioning – from basic riding to learning how to shift gears
   Create diagrams of practice formations, equipment set up, and game situations, etc. See LP
   Safety Procedures – reviewed in introduction

d. Evaluation of Objectives/Assessment:
   i. Formal/informal assessment/evaluation of student progress.

e. Conclusion/Reflection/Debriefing:
   i. Review – how to properly brake and shift gears
   ii. Preview – reinforcement of continuing to ride outside of PE class

5.) Time
   a. Length of teacher instruction – 5 mins.
      i. Demonstrations
   b. Length of student engagement in activity
   c. Teacher – student interaction
      i. Feedback to individual students regarding engagement in the activity and/or skill; teacher addressed student by name when giving individual, specific, congruent feedback; teacher gave feedback throughout the entire lesson.
APPENDIX D: IRB INFORMED CONSENT

Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: The Elementary Physical Education Program: Quality and Sustainability in Pennsylvania

Principal Investigator: Alison Weimer, Graduate Student
268A Recreation Building
University Park, PA 16802
(814) 865-5780; axw206@psu.edu

Advisor: Dr. Dana Mitra
302D Rackley Building
University Park, PA 16802
(814) 863-7020; dmitra@psu.edu

Purpose of the Study: Physical education is facing many challenges today, and two of the major challenges are quality and sustainability in a time of rising childhood obesity, cutting public school funding, and focusing on academic standards. I am interested in how you and your school district are able to offer a high-quality and sustainable elementary physical education program. I want to learn about specific enabling and constraining conditions regarding your elementary physical education program. This knowledge might contribute a greater understanding as to the direction that all elementary physical education programs should be moving in order to have a positive, applicable effect on the future of adolescent health and physical activity patterns.

Procedures to be followed: You will be asked to participate in a semi-structured private interview. I am asking you to help me learn more about quality and sustainability of elementary physical education programs. I am inviting you to take part in this research. If you accept, you will be asked to take part in an interview that will be facilitated by me. During the interview, I will sit down with you in a comfortable place at the school. If it is more convenient for you, the interview can take place over the phone. If you do not wish to answer any of the questions during the interview, you may say so and I will move on to the next question. No one else but me will be present unless you would like someone else there. The information recorded is confidential, and no one else except me will access the information documented during your interview. The entire interview will be recorded using an iPod, but no one will be identified by name. The interview will be transcribed onto my computer and then immediately erased from the iPod. The information recorded is confidential, and no one else but me will have access.

Duration: The research takes place over a one-month period. During that time, I will interview you once, either at school or over the phone, which will take approximately 45 minutes.

Statement of Confidentiality: The research being conducted may draw attention and if you participate you may be asked questions by other faculty in the school district. I will not be sharing information about you to anyone. The information that I collect from this research will
be kept private. Any information about you will have a number on it instead of your name. Only I will know your identification number and it will not be shared with anyone. No information that you tell me today will be shared with anyone else and nothing will be attributed to you by name. The knowledge that I get from conducting this research will be shared with you and your school as well as my committee and at possible physical education conferences.

Voluntary Participation: Your participation in this research is entirely voluntary. It is your choice whether to participate or not. The choice that you make will have no bearing on your job or work-related evaluations or reports. You may change your mind later and stop participating even if you agreed earlier.

Right to Refuse of Withdraw
You do not have to take part in this research if you do not wish to do so, and choosing to participate will not affect your job or job-related evaluations in any way. You may also stop participating in the interview at any time that you wish without your job being affected. I will give an opportunity at the end of the interview to review your remarks, and you can ask to modify or remove portions of those, if you do not agree with my notes or if I did not understand you correctly.

If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

Participant Signature  Date

Printed Name

Position in school (principal, physical education teacher, etc.)

Person Obtaining Consent  Date
APPENDIX E: INTERVIEW PROTOCOL

I have developed a semi-structured interview protocol with open-ended questions to provide ample opportunities for elaboration. The interview questions provide multiple probes into the descriptive and theoretical nature of my study.

- Each interview will start with a statement ensuring confidentiality.
- Each interview will last approximately 30 minutes.
- The same questions will be used for all interviews.
- Three open-ended questions will be used to get the interview started.
- Probing will be used if necessary.
- More focused questions will be used to better focus in on the necessary information needed.

Introductory Remarks:
Thank you for taking the time to talk with me today. This interview will probably take 30 minutes to complete. This interview will be used for this purpose only and will be confidential. I will not identify you by name in my study or in any conversations.

Background Information on Interviewee:
Date:
School:
Name:
Title:

Open-ended questions:
Elementary physical education can act as the cornerstone of a comprehensive approach to promoting physical activity and reducing childhood obesity.

- Tell me about your elementary physical education program…

- What enables your school to provide a strong elementary physical education program?
  What constraints does your school face when it comes to providing a strong physical education program?

- As a (physical educator, teacher, administrator, parent,) what role do you play in the elementary physical education program?

Probe and focused-questions:
Changes over the last 5 years
(Has your involvement in the elementary physical education program changed? If yes, how?)
(Has the elementary physical education program impacted childhood obesity in your school? If yes, how?)

Nature of the curricula
(Which features of your elementary physical education curricula have been important?)

Administrative Support
(How would you describe administrative support of the elementary physical education program?)

Financial Support
(How would you describe financial support of the elementary physical education program?)

Content and Instruction
(What content is included in your elementary physical education program? How is the content taught? Has the content impacted your student obesity levels?)

Adaptive Instruction
(Is adaptive instruction incorporated into the elementary physical education program? If yes, describe.)

Assessment and Accountability
(Do you have a system for keeping track of student achievement?)

Professional Preparation and Development
(Is there a plan for professional preparation and development of physical educators at your school or throughout the school district?)

Collaboration
(To what extent do outside faculty, administration, parents, and community members get involved with your elementary physical education program?)

**Final Question:**
Is there anything else you would like to tell me about your elementary physical education program? Any concerns you have?

Thank you very much for taking time to participate in this interview.
APPENDIX F: CURRICULUM ANALYSIS TOOL

This analysis tool is based off of the Physical Education Analysis Tool (PECAT) developed by the Center for Disease Control (USDHHS, 2010).

**Curriculum Description:**

Name of Curriculum:

Year developed or published:

Date of most current revision:

Overall goals or focus of the curriculum:

Number of lessons in the curriculum:

Is use of this particular curriculum required by the schools board or superintendent?

What guidance does the curriculum provide to notify parents and families about the curriculum or content instruction?

Materials, tools, technology, and resources included in the curriculum:

**Accuracy Analysis**

Are physical activities and skill activities within the written curriculum represented accurately (e.g., flexibility exercises represented with accurate technique, form, and safety consideration) in pictures, graphs, and written text?

Are the sources (e.g., research material, references) of the physical education curriculum content made clear?

Are data, information, and sources of information up to date and accurately interpreted?

Does the curriculum use accurate and appropriate terminology (e.g., “physical education class” versus “gym class”)?

Are information, examples, scenarios, etc. relevant to the students’ lives?

**Acceptability Analysis**

Does the curriculum address the physical education needs of all students in the school, including those with disabilities and those who are not athletically gifted?
Does the curriculum reflect the perspectives, diversity, and needs among students, families, and the community?

**Feasibility**

Can the curriculum be implemented with existing physical education teachers?

Can the curriculum be implemented within the available instructional time?

Can the curriculum be implemented with the existing physical education facilities and equipment?

**Budget**

What is the yearly budget for physical education?

What additional funds are available for curriculum purchase, implementation, and/or materials?
- Grants gained by the teacher, PTO fundraising support, after school activities.

**Scoring:**
- F = Fully = 2 pts. - The curriculum sufficiently aligns with(addresses the standard
- P = Partially = 1 pt. - The curriculum partially aligns with(addresses the standard
- N = No = 0 - The curriculum does not align with(addresses the standard

Does the curriculum align with all 6 Physical Education National Standards?

| Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities |
| Standard 2: Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities |
| Standard 3: Participates regularly in physical activity |
| Standard 4: Achieves and maintains a health-enhancing level of physical fitness |
| Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings |
| Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction |
## APPENDIX G: THEMES ACCORDING TO PARTICIPANT RESPONSES

<table>
<thead>
<tr>
<th>Physical Education Teachers</th>
<th>Principal</th>
<th>Director of Curriculum</th>
<th>Classroom Teachers</th>
<th>Parents</th>
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<tbody>
<tr>
<td>Program Content</td>
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<tr>
<td>• 4 components of fitness</td>
<td>• Cross-curricular</td>
<td>• Life-long activities</td>
<td>• Fitness</td>
<td>• Field Day</td>
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<td>• Coordination skills</td>
<td>• Maximum engagement time</td>
<td>• Movement skills</td>
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<td>• Fitness</td>
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<td>• Standards</td>
<td>• Health concepts</td>
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<td>• Health concepts</td>
<td>• Thinking skills</td>
<td>• Variety</td>
<td>• Movement skills</td>
<td>• Health concepts</td>
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<td>• Lifelong activities</td>
<td>• Wellness</td>
<td>• Wellness</td>
<td>• Variety</td>
<td>• Lifelong activities</td>
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<td>• Liminal fitness testing,</td>
<td>• Whole body</td>
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<td>more cognitive-based</td>
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<td>• Locomotor movement skills</td>
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<td>• Variety of activities</td>
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<td>• Wellness</td>
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| Instruction                 |           |                        |                   |         |
| • Discover                  | • Enthusiastic | • Energetic            | • Enthusiastic     | • Enthusiastic |
| • Enthusiastic              | • Enthusiastic | • Energetic            | • Enthusiastic     | • Passionate |
| • Small and large group     | • Whole-child | • Whole-child          | • Whole-child      |         |
| instruction                 |                        |                       |                   |         |

| Enabling Conditions         |           |                        |                   |         |
| • Administration            | • Collaboration | • Administration      | • Administration | • Collaboration |
| • Collaboration            | • Grants     | • Collaboration       | • Collaboration | • Fun     |
| • Grants                   | • The curriculum | • Grants             | • Fun            | • Grants |
| • The curriculum            | • The physical education teacher | • The physical education teacher | • Parents | • Grants |
| • The physical education teacher | • The physical education teacher | • Parents | • The physical education teacher |
| • Work                     | • Wellness | • The physical education teacher | • Variety | • Variety |
| independently freedon      | • Whole-body | • The physical education teacher | • Whole-body |         |

| Constraining Conditions    |           |                        |                   |         |
| • Money                    | • Money   | • Time                 | • Money           | • Money |
| • Space                    | • Time     |                        | • Time            |         |
| • Time                     |            |                        |                   |         |

| Role                       |           |                        |                   |         |
| • Advocate/change agent    | • Role model | • Approval             | • External concepts | • Assisting |
| • Creativity               | • Supportive | • Facilitator          | • Model behavior  | • Volunteer |
| • Exposure                 |            | • Partnership          | • Support         |         |
| • Supportive               |            | • Support              |                   |         |
| Changes in Your Role | • Creativity  
• Curriculum revision  
• Progressive  
• Variety | • Understanding  
• More knowledgeable  
• Awareness  
• Understanding | • Activity engagement time  
• Creativity  
• Fitness and skill development oriented  
• Lifelong activities  
• Non-competitive  
• Variety | • Fitness  
• Technology  
• Variety  
• Wellness  
• Equipment  
• Lifelong activities  
• Variety  
• Wellness  
• Creativity  
• Fitness  
• Fun  
• Variety | • Perception on Childhood Obesity  
• Admin Support  
• Administrative Support  
• Financial Support  
• Assessment  
• Collaboration  
• Professional Development Support  
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APPENDIX H: ELEMENTARY A CURRICULUM ANALYSIS

This analysis tool is based off of the Physical Education Analysis Tool (PECAT) developed by the Center for Disease Control (USDHHS, 2010).

Curriculum Description:

Name of Curriculum: The Health and Physical Education Curriculum

Year developed or published: 2010

Date of most current revision: Summer 2011

Overall goals or focus of the curriculum:
  Divided into 6 units:
  • Adventure Education: Cooperative Initiatives
  • Aerobic Fitness: Movement Skills
  • Creative Movement: Rhythms and Educational Gymnastics
  • Individual Activities: Manipulative
  • Muscular Fitness: Functional Resistance Training
  • Team Sports: Low Organized Games

Number of lessons in the curriculum:
  • Adventure Education: Cooperative Initiatives = 5 weeks
  • Aerobic Fitness: Movement Skills = 8 weeks
  • Creative Movement: Rhythms and Educational Gymnastics = 4 weeks
  • Individual Activities: Manipulative = 4 weeks
  • Muscular Fitness: Functional Resistance Training = 5 weeks
  • Team Sports: Low Organized Games = 7 weeks

Is use of this particular curriculum required by the schools board or superintendent?
  It was developed by the North Allegheny Physical Education Department: 16 teachers and 3 administrators.
  It is required to be used and followed by all elementary physical education teachers.
  Authors attended seminars, workshops, brought in presenters, site visits, electronic surveys,

What guidance does the curriculum provide to notify parents and families about the curriculum or content instruction?
  Electronic surveys, presentations, newsletters.

Materials, tools, technology, and resources included in the curriculum:
  There is a section that lists all materials/equipment/technology needed in order to teach the unit.
  A section highlights vocabulary/terms that should be emphasized when teaching the unit.
Textbooks and additional readings that compliment the unit for the teacher to use are listed. Websites that act as an additional resource are listed.

**Accuracy Analysis**

Are physical activities and skill activities within the written curriculum represented accurately (e.g., flexibility exercises represented with accurate technique, form, and safety consideration) in pictures, graphs, and written text?
- Essential concepts are listed.
- Key learning objectives are stated along with aligning details (sub-objectives).
- There is a list of activities that correspond with the unit, but no detail is provided.

Are the sources (e.g., research material, references) of the physical education curriculum content made clear?
- Yes.

Are data, information, and sources of information up to date and accurately interpreted?
- Yes.

Does the curriculum use accurate and appropriate terminology (e.g., “physical education class” versus “gym class”)?
- Yes.

Are information, examples, scenarios, etc. relevant to the students’ lives?
- Yes.

**Acceptability Analysis**

Does the curriculum address the physical education needs of all students in the school, including those with disabilities and those who are not athletically gifted?
- Yes.

Does the curriculum reflect the perspectives, diversity, and needs among students, families, and the community?
- Yes.

**Feasibility**

Can the curriculum be implemented with existing physical education teachers?
- Yes.

Can the curriculum be implemented within the available instructional time?
- Yes.
Can the curriculum be implemented with the existing physical education facilities and equipment?
  Yes.

**Budget**

What is the yearly budget for physical education?
  $250

What additional funds are available for curriculum purchase, implementation, and/or materials?
  Grant money gained by the teacher

**Scoring:**

F = Fully = 2 pts. - The curriculum sufficiently aligns with(addresses the standard
P = Partially = 1 pt. - The curriculum partially aligns with(addresses the standard
N = No = 0 - The curriculum does not align with/address the standard

Does the curriculum align with all 6 Physical Education National Standards?

| Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities | X |
| Standard 2: Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities | X |
| Standard 3: Participates regularly in physical activity | X |
| Standard 4: Achieves and maintains a health-enhancing level of physical fitness | X |
| Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings | X |
| Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction | X |
APPENDIX I: ELEMENTARY B CURRICULUM ANALYSIS

This analysis tool is based off of the Physical Education Analysis Tool (PECAT) developed by the Center for Disease Control (USDHHS, 2010).

Curriculum Description:

Name of Curriculum: The Physical Education Curriculum

Year developed or published: 2010

Date of most current revision: Summer 2011

Overall goals or focus of the curriculum:
“Develop the skills necessary for physical activity.”

Units:
- Team sports
- Individual sports
- Life-long activities
- Tag games
- Fitness
- Themed activities
- Dance

Number of lessons in the curriculum: 96

Is use of this particular curriculum required by the schools board or superintendent?
It was written by one elementary physical education teacher. It is not required, but highly encouraged to be used/followed.

What guidance does the curriculum provide to notify parents and families about the curriculum or content instruction?
None.

Materials, tools, technology, and resources included in the curriculum:
Under each unit is a resource section that lists: equipment needed, technology, and texts or websites that accompany the unit.

Accuracy Analysis

Are physical activities and skill activities within the written curriculum represented accurately (e.g., flexibility exercises represented with accurate technique, form, and safety consideration) in pictures, graphs, and written text?
50% of the time
Are the sources (e.g., research material, references) of the physical education curriculum content made clear?
Yes.

Are data, information, and sources of information up to date and accurately interpreted?
Yes.

Does the curriculum use accurate and appropriate terminology (e.g., “physical education class” versus “gym class”)?
75% of the time.

Are information, examples, scenarios, etc. relevant to the students’ lives?
Yes.

Acceptability Analysis

Does the curriculum address the physical education needs of all students in the school, including those with disabilities and those who are not athletically gifted?
Yes.

Does the curriculum reflect the perspectives, diversity, and needs among students, families, and the community?
Yes.

Feasibility

Can the curriculum be implemented with existing physical education teachers?
Yes.

Can the curriculum be implemented within the available instructional time?
Yes.

Can the curriculum be implemented with the existing physical education facilities and equipment?
Yes.

Budget

What is the yearly budget for physical education?
$500

What additional funds are available for curriculum purchase, implementation, and/or materials?
Grant money gained by the teacher.
Scoring:
F = Fully = 2 pts. - The curriculum sufficiently aligns with(addresses the standard
P = Partially = 1 pt. - The curriculum partially aligns with(addresses the standard
N = No = 0 - The curriculum does not align with/address the standard

Does the curriculum align with all 6 Physical Education National Standards?

<table>
<thead>
<tr>
<th>Standard</th>
<th>F</th>
<th>P</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Standard 2: Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Standard 3: Participates regularly in physical activity</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Standard 4: Achieves and maintains a health-enhancing level of physical fitness</td>
<td></td>
<td></td>
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<tr>
<td>Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction</td>
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</table>
APPENDIX J: ELEMENTARY C CURRICULUM ANALYSIS

This analysis tool is based off of the Physical Education Analysis Tool (PECAT) developed by the Center for Disease Control (USDHHS, 2010).

**Curriculum Description:**

Name of Curriculum: The Physical Education/Wellness Program

Year developed or published: 2010

Date of most current revision: Summer 2011

Overall goals or focus of the curriculum:
1. Develop fundamental motor skills necessary for participation in sports and lifetime activities.
2. Encourage children to improve personal fitness outside of school.
3. Make informed choices about personal fitness based on individual needs and preferences.
4. Experience joy, pleasure, and satisfaction from participating in physical activity.
5. Foster high standards of safety and responsible social behavior.
6. Encourage children to set personal goals and to recognize the importance of individual achievement.

Number of lessons in the curriculum:
No lessons are included.

Is use of this particular curriculum required by the schools board or superintendent?
Yes – must follow/address the standards.

What guidance does the curriculum provide to notify parents and families about the curriculum or content instruction?
Not specified.

Materials, tools, technology, and resources included in the curriculum:
Not included.

**Accuracy Analysis**

Are physical activities and skill activities within the written curriculum represented accurately (e.g., flexibility exercises represented with accurate technique, form, and safety consideration) in pictures, graphs, and written text?
Yes – aligned with standards, but no pictures/examples.

Are the sources (e.g., research material, references) of the physical education curriculum content made clear?
Yes – standards based.
Are data, information, and sources of information up to date and accurately interpreted?
  Yes.

Does the curriculum use accurate and appropriate terminology (e.g., “physical education class” versus “gym class”)?
  Yes.

Are information, examples, scenarios, etc. relevant to the students’ lives?
  Yes.

**Acceptability Analysis**

Does the curriculum address the physical education needs of all students in the school, including those with disabilities and those who are not athletically gifted?
  Yes.

Does the curriculum reflect the perspectives, diversity, and needs among students, families, and the community?
  Yes.

**Feasibility**

Can the curriculum be implemented with existing physical education teachers?
  Yes.

Can the curriculum be implemented within the available instructional time?
  Yes.

Can the curriculum be implemented with the existing physical education facilities and equipment?
  Yes.

**Budget**

What is the yearly budget for physical education?
  $0

What additional funds are available for curriculum purchase, implementation, and/or materials?
  Grants gained by the teacher, PTO fundraising support, after school activities.
Scoring:
F = Fully = 2 pts. - The curriculum sufficiently aligns with(addresses the standard
P = Partially = 1 pt. - The curriculum partially aligns with(addresses the standard
N = No = 0 - The curriculum does not align with/address the standard

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APPENDIX K: LESSON PLAN ELEMENTARY B

Unit: Halloween Stations  Dates: Weeks around Halloween


Objectives: Students will be able to demonstrate:

- Frisbee throw with a vinyl witches at the Witches Hat station.
- tossing skills using teddy bears at the Critter Stew station.
- volleyball skills while using a beach ball at the Ghoul Ball Station.
- badminton skills while hitting a koosh worm at the Worm Squish station.
- juggling skills while at the Ghost Juggle station.
- balance skills crossing a balance beam at the Cross the Swamp station,
- shooting skills with a basket ball while at the pumpkin patch.
- putting skills using a putter, and a ball at Graveyard Putt-Putt.
- throwing motion using paper airplanes as objects towards a target in Bats in the Belfry.

Materials:

a. cones made to look like witches – orange hair, vinyl hats, green faces, black bodies, hula hoops to put the cones inside, spots to mark from where to stand
b. laundry basket, teddy bears, and spots – critter stew
c. paper chain, beach ball, cones to mark area
d. badminton rackets, koosh worm, cones/spots to mark area
e. juggling scarves
f. balance beams, blue/green paper to make a swamp
g. basketball, green leaves, and rolls to make a pumpkin patch on the backboard, milk crate to put the ball in when done with station
h. putters, ball, “grave stones”, putting greens
i. paper airplanes, hula hoops, hoop holders (to make hoops upright), string, paper bells
j. signs to describe each station
k. tape, ladder, floor tape to mark areas
l. score sheets for the group/individual

Procedures:

1. decorate the gym with paper chain or Halloween themed stuff
2. set-up the stations – hang the papers, prepare the materials
3. Stations:
   a. Witches’ hats – use the cones decorated as witches with hair made of orange yarn, a hula hoop around the cone, and spots for the students to stand on – toss (Frisbee style) the vinyl hats onto the witches – 2 points if lands on (doesn’t touch floor), 1 point if touches the cone anywhere in the hula hoop.
b. Critter Stew – use a laundry basket covered in dark plastic bag, spider web for the stew portion, and spots to mark where the students underhand toss the critters into the basket

c. Ghoul Ball – beach volleyball – use paper chain, posts, cones to make net and mark area, and a beach ball for the ball – students play volleyball in a small area for this station

d. Worm Squish – play badminton with a partner using a koosh worm, or a yarn ball, to hit the ball/worm into the hula hoop for points – use cones to mark area, spots for players to stand on

e. Ghost juggling – mark an area with spots – leave a box with enough scarves for each person to use 3 – have them try different juggling skills with the scarves – put scarves in box for safety before moving.

f. Cross The Swamp – set up 3 sections of balance beam and have them walk different ways across the swamp – use paper to make look like a swamp

g. Pumpkin Patch – use the basketball as a pumpkin, decorate the hoop to look like a pumpkin patch – use spots for students to shoot from – use extensor as needed for the younger grades.

h. Graveyard Putt-Putt – see if you can putt a ball through the “headstone”

i. Bats in the Belfry – see if you can throw paper airplanes through upright hula hoops

4. split the class into groups of 3 or 4 (even though there are 9 stations worth of spaces – not all stations will be stocked to start)

5. explain each station – demonstrate skills

6. if second class through the stations – have them score themselves on a scoring sheet

7. wander around and help as needed

K-Activity see above except …
- worm squish – hit worms into a hula hoop
- basketball – use a lower target as well if the extensors are not available

Adapted: Students will do activities according to their IEP’s specially designed instructions or the students Doctor’s prescribed instructions.

Evaluation – teacher observation of skills, participation of students, evidence of teamwork, and cooperation
VITA

Alison Weimer

Education
B.S., The Pennsylvania State University, Kinesiology, College of Health and Human Development, 2003

Certifications
Pennsylvania Professional Instructional Certificate: Health and Physical Education
Physical Best Health-Fitness Specialist, National Association for Sport and Physical Education

Professional Experience
The Pennsylvania State University - University Park, PA, 2012-present
PHETE Program Director and Instructor
Our Lady of Victory Catholic School - State College, PA, 2007-2009
Physical Education Teacher
University of Evansville - Evansville, IN, 2006-2007
Adjunct Professor of Exercise Science
Assistant Women’s Soccer Coach
State College Area School District - State College, PA, 2004-2006
Health and Physical Education Teacher
Northwestern Human Services - Centre County, PA, 2004
Therapeutic Staff Support

Selected Professional Service and Membership
Member, Pennsylvania State Association for Health, Physical Education, Recreation, and Dance
Professional Preparation and Certification, 2012-present.
Member, American Alliance for Health, Physical Education, Recreation and Dance, 2001-present.