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# Implementing a new curriculum: reflections of a physical education teacher

Matthew Daniel Madden

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

IMPLEMENTING A NEW CURRICULUM: REFLECTIONS  
OF A PHYSICAL EDUCATION TEACHER

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy

Matthew D. Madden

College of Natural and Health Sciences  
School of Sport and Exercise Science  
Sport Pedagogy

December, 2010

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This Dissertation by: Matthew D. Madden

Entitled: *Implementing a New Curriculum: Reflections of a Physical Education Teacher*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in  
College of Natural and Health Sciences in School of Sport and Exercise Science,  
Program of Sport Pedagogy

Accepted by the Doctoral Committee

---

Melissa Parker, Ph.D. Co-Chair

---

Mark Smith, Ph.D. Co-Chair

---

Kevin Patton, Ed.D. Committee Member

---

Christina Sinclair, Ph.D. Committee Member

---

Carolyn Edwards, Ed.D. Faculty Representative

Date of Dissertation Defense \_\_\_\_\_

Accepted by the Graduate School

---

Robbyn R. Wacker, Ph.D.  
Assistant Vice President for Research  
Dean of the Graduate School & International Admission

## ABSTRACT

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The purpose of this study was to examine the reflections of a physical education teacher after the first year of new curriculum implementation. Data were collected from formal and informal interviews based on field notes of prior classroom observations, documents, and artifacts. Data were analyzed using two distinct yet overlapping processes of analysis derived from a grounded theoretical perspective: open and axial coding (Corbin & Strauss, 2008). Analyses highlighted initiated changes on three factors: past experiences, changes to materials and practices, and the perspective of the teacher.

The teacher's past experiences indicated that three aspects during the years leading up to implementation influenced the process: the ability to overcome barriers, lack of resources, and being a part of the curriculum development team. Next, the teacher's adoption of different teaching practices also changed with the implementation of the new curriculum. Two dimensions of change were planning and assessment. Finally, two aspects reflected the teacher's perception of the experience: support and student response. The findings of the current study determined that multiple forms of support were significant influences during the implementation process. Support was viewed as the "players involved" and "how they supported implementation". The individuals included in the process were student teachers, the professional learning

community (PLC), significant others, and an instructional coach. Each played a different role but essentially supported her efforts on an instructional level. The final perception as important to implementation was how students responded to the “new” curriculum.

Student response was classified as student behavior and learning transfer. The teacher’s perception was that the older students just wanted to play large-sided games and therefore were a barrier to change. Alternatively, the teacher’s perceptions were that the less-skilled students (younger) benefited from the instructional approach. This benefit was related to the transfer of cue from one activity to another.

Overall, the study viewed the role of the teacher as the change agent throughout implementation. To understand change is to understand the teacher. Specifically, the study’s results indicated that previous knowledge has an impact on implementation. The teacher changed her teaching approaches and practices on multiple levels. Finally, the teacher perceived support in one form or another as necessary for teacher change to occur (Dyson & O’Sullivan, 1998). This study reinforces the importance of understanding the teachers as they adopt new strategies, and change their teaching approach.

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## CHAPTER I

### INTRODUCTION

Improving teacher effectiveness as a part of educational reform efforts has gained a tremendous amount of attention in recent years (Fullan, 2007; Sharratt & Fullan, 2006; Slavin & Madden, 2001). The publication of *A Nation at Risk*, in 1983 (National Commission on Excellence in Education [NCEE]), initiated the most recent reform movement in the United States. The negative implications of *A Nation at Risk* motivated legislation to outline efforts to “fix” American schools (Goals 2000: Educate America Act [U.S. Congress, 1994]). The Educate America Act was one of the first attempts to produce change in schools; it gained momentum in the 1990’s, then “burst open” with the enactment of No Child Left Behind Act of 2001 (Olsen & Sexton, 2009, p. 9). The combined overriding premise of these educational reform efforts was to provide public school accountability and standardization in selected subject areas across the nation.

Ultimately these education reform initiatives require teachers to attempt new pedagogical methods including instruction and new curricular approaches to learning (Borko, Davinroy, Bliem, & Cumbo, 2000; Fullan, 1991; Richardson & Placier, 2001; Richardson, 1992; Rosenholtz, 1989). Although the educational reform efforts have focused largely on the areas of literacy, math, and science education all curricular areas have been impacted. Physical education teachers and researchers want to be involved in the process, but its classification as a non-core subject has resulted in limited recognition

(Bechtel & O'Sullivan, 2007). However, reform and physical education teacher and curricular change efforts have been studied (e.g., Bechtel & O'Sullivan, 2007; Cothran, 2001; McCaughtry, Martin, Hodges-Kulinna, & Cothran, 2006; Patton & Griffin, 2008; Pope & O'Sullivan, 1998; Ward, Doutis, & Evans, 1999; Wirszyla, 2002). Results have indicated a need for effective curricular change (Cothran & Ennis, 2001; Rink & Williams, 2003; Ward, 1999; Ward & O'Sullivan, 2006). While the need for curricular change is well documented, what is less apparent is the choice of instructional strategies, methods, and pedagogy teachers utilize to implement curriculum (Cohen & Ball, 2001).

Teachers are the “most important factors for successful curricular change” (Ha, Lee, Chan, & Sum, 2004, p. 430). In particular, teachers are the central figures in the process of translating curriculum into classroom practices (Day, 1999; Guskey, 2002). The teacher's individual greatest contribution is to direct change in their schools' physical education curriculum. Implementing effective curriculum in physical education can transform practices that support student learning, provided the teacher implements it appropriately. However, they are often unprepared and do not recognize the complexity of implementing new strategies (Ha, Wong, Sum, & Chan, 2008). To implement curriculum effectively teachers need support, guidance, knowledge, and encouragement to adopt and adapt the initiative to meet the needs of their students (Fullan, 2001; McLaughlin & Zarrow, 2001). Physical educators attempting change require the previously mentioned tools to be effective but are often inhibited by large class sizes, lack of time, and inadequate facilities (Faucette, 1987; Sparkes, 1991). One avenue to address these concerns and provide effective curricular change process examples is the

use of professional development as a support mechanism for successful implementation (Ha, et al., 2004; Ward, 1999).

Professional learning opportunities are crucial to curriculum change and enable teachers to examine outcomes and strategies for student learning. There is a growing awareness that student learning may only occur if improvement is made in the quality of teachers' career-long professional learning (Armour & Yelling, 2007). Evidence supports, that no single approach to professional learning will be effective for all teachers all of the time and that a variety of learning experiences are required (Guskey, 1995; Klingner, 2004). However, even if approaches to professional learning vary the goal must be to teach teachers how to implement curriculum effectively, including the employment of current standards and authentic assessments which are the catalysts presently driving curriculum change.

Current educational standards and accountability for student learning outcomes across subject areas were framed utilizing the original educational reform documents and are major components of the current curricular reform movements. Reform efforts for physical education are no different. In fact, researchers and/ or teacher educators fear that if physical education cannot demonstrate observable outcomes, the field risks becoming "an area that can be reduced or eliminated" (Rink, 1993, p. 5). In an attempt to guide learning and provide accountability in physical education, national standards, *Moving into the Future: National Standards for Physical Education* were developed in 1995 and revised in 2004. The national standards have been used to frame curriculum development and are therefore an influential component of implementation.

Overall, three concepts must be addressed for teacher change, and ultimately, curriculum implementation effectiveness. First, the teacher must be recognized as the change agent and therefore receive appropriate guidance. Second, forms of professional learning must be present to assist in starting and maintaining the attempt. Third, a standards based curriculum should be utilized as the framework to implement an innovation effectively.

### Purpose of the Study

The purpose of this study was to examine the reflections of a physical education teacher after the first year of new curriculum implementation. The case study design employed provided a meaningful way to examine a physical education teacher in her unique real-life situation. Data were collected to provide a detailed description of the teacher's perspectives and reflections after being engaged in curriculum implementation.

### *Research Questions*

A case study design was selected because of the nature of the research problem and the question being asked. Three research questions guided the study:

- Q1     How did the teacher's previous experience influence decisions during implementation?
- Q2     How did the teacher change her teaching materials and practices during the process?
- Q3     What were the teacher's perceptions of her experience of implementing a new curriculum?

### Significance of the Study

The teacher plays a central role in determining the success or failure of any change (Fullan, 1991; Sparkes, 1991). For decades, the destiny of educational reforms

has been determined by a variety of factors at different times, but one thing stands out, the gap between policy intentions and their implementation is still unfilled (Penney & Chandler, 2000; Penney & Jess, 2004). One of the common reasons for success or failure of innovations is how teachers perceive the change to maximize the learning outcomes of students (Ha et al, 2008). Meanwhile, few studies have provided insight into the implementation of curriculum in physical education and the influences it has on students (Doutis & Ward, 1999). Additionally, what physical education teachers believe related to curricular implementation is largely unknown (Bechtel & O'Sullivan, 2007; Cothran, 2001; McCaughtry et al, 2006; Patton & Griffin, 2008; Pope & O'Sullivan, 1998; Ward, Doutis, & Evans, 1999; Wirszyla, 2002). Therefore, this study's findings have the potential to extend what the profession understands as change and provides an example of one teacher's attempt.

The current study focuses on one teacher's perceptions of curriculum change while examining the implementation of a new curriculum at the elementary level. Specifically, it evaluated decisions the teacher made during the implementation or delivery of curriculum. The results may assist teacher educators in better understanding factors that promote the implementation process in physical education. By understanding the factors that lead teachers to change, educators and teacher educators may gain insights into how to enable and promote change to occur in other settings.

## CHAPTER II

### LITERATURE REVIEW

Trials and tribulations of educational reform projects have been well documented in educational research (Olsen & Sexton, 2009). For decades, it has been suggested that the implementation of educational reform is its own active force (Berman & McLaughlin, 1978; Fullan & Pomfret, 1977; Olsen & Sexton, 2009; Sarason, 1982; Theriot & Tice, 2009). Implementation is not a simple, lifeless process of putting into practice some chosen curriculum change. Instead, it influences and affects the interrelationships developed within the context of the teachers implementing it (Olsen & Sexton). Fullan (2007) notes that change can occur at many levels including the classroom, school, district, or state. At any time changes can occur in curricular materials, teaching practices, and knowledge and beliefs of curriculum and learning practices. Curriculum implementation is the active means to making improvements to the three levels of change and therefore must be examined (Fullan).

To successfully examine the notion of implementation it is important to understand change in terms of both educational reform and curriculum change. Therefore, the chapter is divided into four sections: theoretical framework, curricular change, teachers' professional learning, and role of the teacher. The first section introduces Fullan's theoretical framework of educational change and explores its dynamics using the three broad phases of initiation, implementation, and continuation.

Additionally, the section introduces the aspects of change: characteristics related to change, local factors (i.e., school system), and external factors (i.e., government and other agencies). The section concludes by defining curriculum, instruction, and teacher effectiveness.

Following the overview of theoretical framework and its main components curricular change is examined. Specifically, the overlapping constructs and research findings in educational change commonly examined in physical education research, curricular approach, and teacher change are described. The section combines the characteristics of change and physical education research. Multiple factors of educational reform have impacted change in physical education. Although these factors are tangential to the main purpose of the study, it is important to understand the potential impact these factors have on the individual teacher. Therefore, the factors need for change, clarity of innovation, and complexity of change are described.

In section three, theories of professional teacher learning are examined. Two specific models of reform-based teacher development efforts are professional learning communities [PLC's] and mentoring as professional learning are explained. Moreover, the models will exemplify the importance of teacher development when implementing new curriculum. Additionally, characteristics of successful examples of professional learning in education and physical education will be outlined using curricular implementation factors as the frame

Finally, the role of the teacher is explained. Most educational reforms and change initiatives require teachers to gain new knowledge and professional development to carry out their (teachers') role (NCEE, 1983). Researchers exploring these tenants have largely

focused on the two main categories of teacher knowledge and professional development. Educational researchers have recognized the role of teachers' knowledge "because it plays a critical role in what and how they teach" (Rovegno, 2003, p. 295). Therefore three theories (practical, craft, pedagogical content knowledge [PCK]) of teachers' knowledge are discussed for the purpose of trying to uncover ways that research has identified knowledge through the role of the teacher. The section concludes with the role teacher reflection plays on teacher learning. Overall, using Fullan's (2007) theoretical framework, role of the teacher, teachers' professional learning, and curricular change is the central focus of the chapter.

### Theoretical Framework

Understanding educational change is complex. The complexity of educational change stems from it not being a single entity (Fullan), but a theory which includes multiple interacting components. As Fullan suggested, "educational change is technically simple and socially complex" (p. 84). Though there are several theories which investigate the complexity of change, when considering a framework for examining the implementation of a new curriculum for change, Fullan's perspective was the most appropriate and relevant in grounding this study.

Fullan identified three broad phases of the change process: initiation, implementation, and continuation. Initiation refers to the adoption of a new innovation and the process that leads up to and includes the decision to proceed with a change. Implementation or initial use (usually the first two or three years of use) involves the first experiences of attempting to put the innovation into practice. Continuation refers to whether the innovation becomes an ongoing part of the program or system. Each phase is

described for the purpose of this review; however, attention will be paid to the implementation phase, since it ties more directly to the scope of the study.

### *Initiation*

Initiation is the process that leads up to and includes a decision to adopt or proceed with implementation of an innovation. Multiple variables influence whether an innovation is initiated, Fullan identifies eight factors influencing the initiation process: (a) the existence and quality of innovations, (b) access to information, (c) advocacy from administration, (d) teacher advocacy, (e) external change agents, (f) community pressure/support/opposition/apathy, (g) new policy and funds (federal/state/local), and (h) problem-solving and bureaucratic orientations. The eight factors imply that change will be initiated from a variety and combination of sources. However, in many ways it matters less who initiates the change and more about the “quality of the change process” being proposed (p. 81).

Initiation is when an individual or group, for whatever reason, begins or promotes a certain program or direction of change (Fullan, 2007). Initiation decisions occur all the time and come from a variety of sources in education. It is important to build an effective foundation during the initiation phase of a new innovation.

### *Implementation*

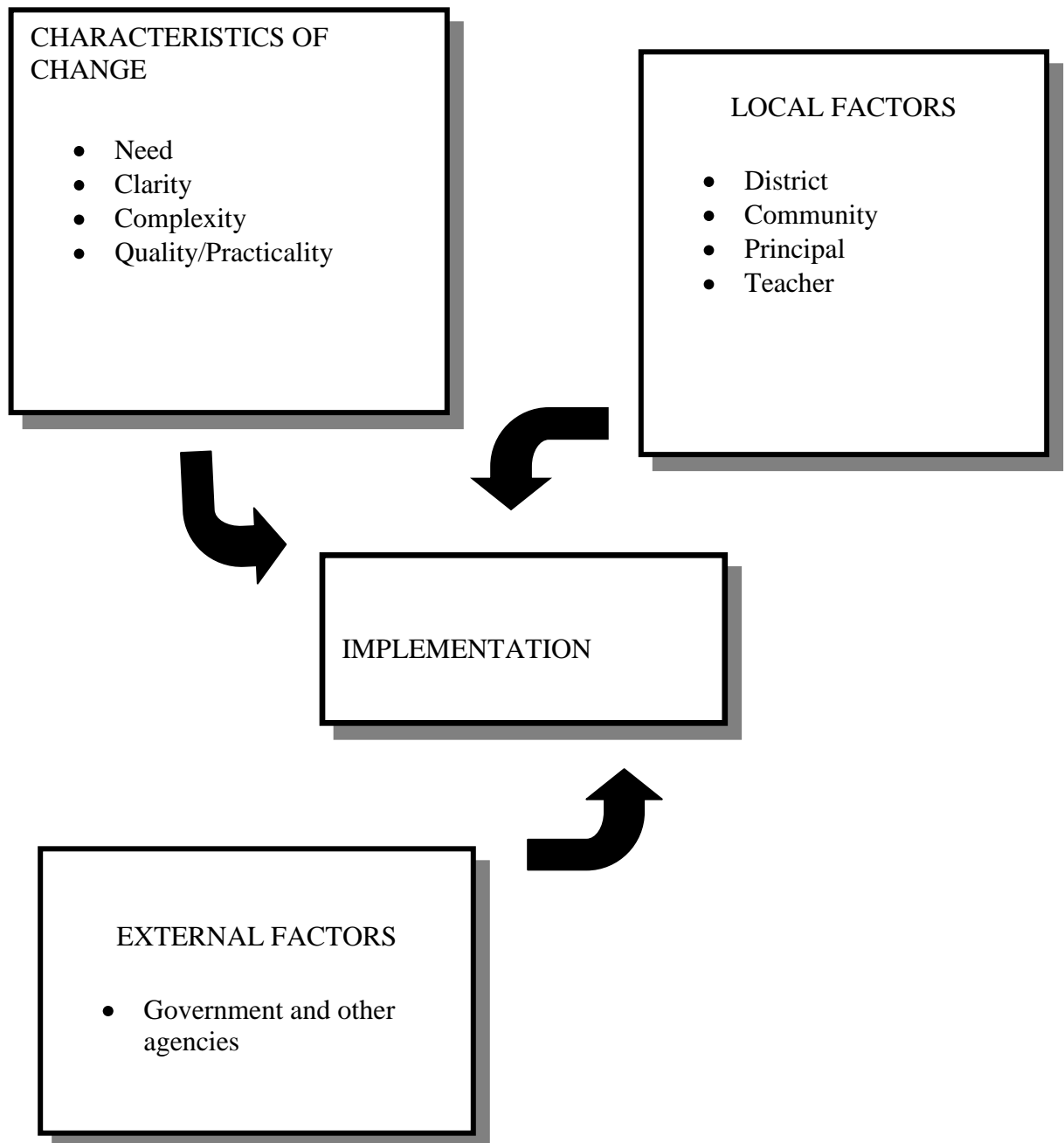
Implementation follows the decision to initiate an innovation and refers to the “process of putting into practice an idea, program, or set of activities and structures new to the people attempting or expected to change” (Fullan, 2007, p. 84). Fullan suggests that the implementation phase is the most crucial for “real change” to occur (p. 84). It is

critical because it is the means of accomplishing the desired objectives that have been discussed and written during the initiation phase of the innovation.

The idea of implementing a new innovation that has been successfully documented may seem like a simple task. However, where the implementation fails or succeeds is determined by factors influencing the dynamic nature of the process. The nine critical factors that influence the implementation are organized in three main categories relating to the characteristics of the innovation or change project, local roles or characteristics, and external factors (Figure 1). The list of characteristics is simplified, but the “unpacking” of the factors is complex (Fullan, 2007, p. 87). Each factor is explained by describing how it relates to the overall category.

*Characteristics of change.* The characteristics of change refer to and define four factors of implementation which include: need, clarity, complexity, and quality or practicality (Fullan, 2007). First, the implementers must see a need for change. Need defines the perceived relevance of change in a given context. If teachers do not recognize a need for change to their program then implementation will be difficult. If however a teacher feels that change is relevant then the innovation objectives must meet the educational beliefs of the teacher. Additionally, an innovation or program proposed by the school district must be considered appropriate by the school in order to have positive efforts towards implementation. Second, clarity refers to the teachers’ understanding of the innovation and how it should be implemented. For example, in curricular change, clarity is needed regarding objectives and strategies for the implementers to understand what is to be accomplished. Even when there is agreement that some kind of change is

needed, the adopted innovation may not be at all clear about what teachers need to do differently. Third, complexity refers to the difficulty and extent of change required.



**Figure 1.** Interactive Factors Affecting Implementation (Fullan, 2007; p.87)

Complexity generally increases the difficulty of the change and can be examined with regard to difficulty, skill required, and extent of alterations in beliefs, teaching strategies, and use of materials (Fullan, 2007). Less complex changes are often easier to implement, although may not make much of a difference while more complex changes are more beneficial but require more effort and failure receives more attention. Fourth, quality and practicality are two factors that relate to the characteristic of change and are often used interchangeably. Quality refers to the combination of the three previous factors (need, clarity, and complexity) of change. Practicality relates to the readiness or ability to make change. The failure to produce quality and practicality to change is usually apparent when the adoption of the innovation happens too quickly and there is a lack of preparation and resources or “adoption is more important than the implementation” (p. 91).

*Local factors.* The second interactive constructs impacting change are the local factors. These factors are “the social conditions of change; the organization or setting in which people work; the planned and unplanned events and activities that influence whether or not given change attempts will be productive” (Fullan, 2007, p. 93). Within Fullan’s model, local factors or roles include (a) the school district, (b) the community, (c) the principal, and (d) the teacher.

First, school districts often adopt new innovations with mixed results and unfortunately, many attempts seem to fail. More times than not, failed attempts are due to the lack of adequate follow-up or initial development. A lack of success often produces negative feelings among the implementers, resulting in less enthusiasm or even apathy towards the next idea proposed. However, if the implementers feel that a change has been

successful and beneficial then they become more willing to give effort and attention to something new because “success can beget more success” (Fullan, 2007, p. 93). The support of the district administration has also been identified as crucial to the success of implementation within the educational research (Campbell & Fullan, 2006; Fullan, Hill, & Crevola, 2006; Sharratt & Fullan, 2006; Supovitz, 2006). District level support is only effective when administrators show active knowledge and understanding of the complex nature of the specific change. There are examples of successful implementation attempts within individual schools and classrooms, but without central administrator support, district-wide change will not happen (Fullan, 2007).

Second, the school board and community play an integral role in change. The school board can indirectly affect implementation by hiring or firing the schools district superintendent. Conflicts may occur between the community and the innovation implementation proposed by the district especially if immediate results are not apparent. There are examples where the school board and the district are actively working together and improvement has been achieved (Campbell & Fullan, 2006). Simply stated, communities and school boards must be involved to some extent, or at least supportive, for district-wide change to be successful (Fullan, 2007).

Third, the principal must be a leader or facilitator of change and take actions to legitimize it. The principal is in the middle of the relationship between the teachers and external ideas and people. There are several studies of school leadership across different countries and that provide consistent and clear messages (Bryk & Schneider, 2002; Day, Harris, Hadfield, Toley, & Beresford, 2000; James, Connolly, Dunning, & Elliot, 2006; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005).

The results indicated that principals shared four qualities: (1) an inclusive, facilitative leader of orientation, (2) institutional focus on student learning, (3) effective management, and (4) combined pressure and support (Fullan, 2007, p. 160). These four factors are major influences to effective implementation. Qualities listed are important to provide successful support for teachers implementing change.

Fourth, the role of teachers is the most important consideration when implementing any type of change. Fullan (2007) stated, “Educational change depends on what teachers do and think”—(p. 129). Both individual teacher characteristics and collective or collegial factors play roles in determining implementation. Therefore, two notions influence the teacher’s role when implementing change, teacher knowledge and how professional learning efforts occur.

*External factors.* The last set of factors that influence implementation places the school or school district in the context of the broader society (Fullan, 2007). In the U.S., the main external authorities consist of state departments of education and federal agencies. Agencies such as regional research and development laboratories and centers, philanthropic foundations, and other external partners also attempt to support educational implementation.

The department of education has an influential role in the implementation of change that is sometimes not recognized and more recently though greater standardization and accountability have had direct influence on accomplishing specific learning outcomes (Fullan, 2007). However, the lack of role clarity and communication has been a deterrent of implementation. In the past, relationships between schools and government agencies have been categorized separately because the value of education

was perceived as different. More recently, government agencies have become increasingly aware of the importance and difficulty of implementation. Therefore, it is not uncommon for them to require resources to clarify standards of practice, assessments, established implementation units, support for professional development and monitoring of policies (Fullan) when attempting implementation.

Successful implementation depends on the combination of all the factors (need, clarity, complexity, and quality/practicality), local characteristics (district, community, principal, and teacher), and external factors (government and other agencies) described. The nature of the change, the makeup of the local district, the character of individual schools and teachers, and the existence and form of external relationships interact to produce conditions for change or non-change (Fullan, 2007). Therefore, implementation is very complicated and requires the alignment of multiple factors for success, and continuing the process can be equally challenging.

### *Continuation*

The final phase is continuation or institutionalization and refers to whether the change becomes an ongoing part of the system. The majority of change efforts do not make it to the continuation phase because of factors such as a lack of interest, lack of money for teacher development, teacher turnover, and lack of support from the central office (Fullan, 2007). These factors individually or combined are what contributes to the demise of 75% of reform attempts.

In short, the broad aspects of the initiation, implementation, and continuation processes have several related components. Effective innovations depend on the combination of all factors and characteristics described in this section. To bring about

more effective change, reform efforts need to be able to explain not only what causes success, but how to influence those causes. Significant educational change results in changes in beliefs, teaching style, and materials which can come about only through teacher knowledge and development (Fullan, 2007).

Acknowledging the complexity of the dynamic process of change Fullan (2007) and Sparkes (1990) have identified three dimensions to the change process. The first dimension refers to the potential change of materials, equipment, and/or the adoption of a curriculum package. The use of different materials and equipment are referred to as surface level, or superficial change (Sparkes, 1990). The second dimension of change includes the use of new skills, teaching approach, instruction, and strategies. Implementing change to one's teaching practices are more difficult (Fullan). Third, is the transformation of beliefs, values, and perspectives. The dimensions describe on a continuum the difficulties of change.

#### *Defining Curriculum, Instruction, and Teacher Effectiveness*

Actions or processes that influence the dimensions are described as phases of curriculum implementation. Change can occur on multiple levels and involve numerous aspects of education. Therefore, curricular change is one example of significant change.

Educators use the term curriculum to describe a range of educational experiences associated with student learning (Ennis, 2003). A curriculum may refer to the content taught in a subject area, such as physical education, or the topics covered in one lesson, one unit, or one course. Additionally, curriculum may be defined as the knowledge, skills, and learning experiences that are provided to students within the schools program (Lund & Tannehill, 2005). The curriculum plan facilitates learning, asks questions of

“why” and “what”, while providing the framework for a program’s goals, objectives, decisions, assessments, and evaluation procedures. In physical education, the organization of a curriculum has been reported in the form of curricular models (Macdonald, 2006). In 1985, Jewett and Bain outlined that “curriculum models are designed to provide a basis for decisions regarding the selection, structuring, and sequencing of educational experiences” (p. 45). More recently, curriculum models have been defined as comprehensive and coherent plans for designing and implementing the entire physical education program in a school or district (Metzler, 2005). Curriculum models do not stand in isolation and must be delivered by some form of instruction. Additionally, the complexity of curriculum cannot be summed up by the use of a model.

Multiple influences contribute to the complexity of curriculum (Ennis, 2003). For example, the community, school, teachers’, families, and students each influence how a curriculum is implemented. The complexity stems from the beliefs each influence has on the curriculum. Understanding that the teacher’s beliefs, influences, background, and experience are potential indicators to the instructions strategies utilized is complicated.

Instructional strategies and techniques are necessary to implement the curriculum and can influence the eventual learning that results. While instruction and curriculum are related, they are different and making a distinction between the two is important. Instruction has been defined as the delivery system that promotes the teaching-learning process for implementing the curricular plan (Jewett, Bain, & Ennis, 1995). Instruction focuses on the question of “how”, and is implemented by the overall objectives of the curriculum. The notion of instruction is based on a view that includes learning theory,

long-term learning goals, context, content, classroom management, related teaching strategies, verification of process and the assessment of student learning.

Imbedded within the instruction are effective teaching methods, strategies, styles, or skill. These methods are typically used for one or a few short-term learning activities and outcomes, before giving way to another method, strategy, style, or skill within a single lesson. Teaching methods, strategies, styles, and skills have to do with “how” and “why” of delivering content, not the “what” (Rink, 2006). Effective teaching strategies, styles, approaches within the instructional setting must provide students with developmentally appropriate content, clear instructions for practice, opportunity to practice at an appropriate level of difficulty, opportunity to participate in appropriately designed task progressions, and accurate feedback and assessment about subject matter and role performance (Rink).

In order to provide learning opportunities there must be an alignment of instructional strategies, curricular, and effective teaching. Suggestions have been to modify the curriculum and/ or instructional approach to ensure a more beneficial experience for students (Corbin, 1994; Locke, 1992; Siedentop, 1992). Examples are the adoption of Sport Education (Siedentop, Hastie, & van der Mars, 2004), Teaching Social Responsibility through Physical Activity (Hellison, 1995), fitness curriculum (Corbin, 1994), and the tactical approach to teaching games (Griffin, Mitchell, & Oslin, 1997; Mitchell, Oslin, & Griffin, 2006).

Curriculums have been explained as comprehensive and coherent plans for designing and implementing the entire physical education program in a school or district (Metzler, 2005). In order for the curriculum to meet the school and district goals

(standards, objectives) the teacher must understand how to instruct and communicate the content effectively. Therefore, the value of any curriculum, regardless of the (curriculum/instructional) methods selected, depends on teacher effectiveness (Stillwell & Willgoose, 2006). The level of effectiveness is judged by student performance and learning outcomes. This basic assumption exemplifies the need for not only a meaningful curriculum with clearly defined objectives, but carefully selected curricular and instructional approaches.

In conclusion, teachers must select curriculum and instructional guides that allow objectives and learning outcomes to be met. The objectives must relate to national and state standards. Teachers must realize that they will have to understand and implement a couple of models to achieve these standards (Siedentop & Tannehill, 2000). In order for physical education programs to meet objectives teachers must effectively design appropriate learning experiences and tasks, present tasks clearly, develop content, develop and maintain a learning environment, motivate students, plan, and assess appropriately (Rink, 2006). These effective teaching constructs are the foundation of a positive physical education program. What is known, the teacher has a tremendous amount of influence on the curricular and instructional strategies implemented.

Richardson (1992) pointed out that a critical factor in teachers' decisions to select a particular curricular approach is the extent to which the curricular plan is effective. To be effective, a curriculum must fit within the educational context and the teachers' values and beliefs (Ennis, 1995). Furthermore, teachers' values and beliefs are influenced by their past experiences, career stage, and their own sense of competence, which leads them to either take action or not.

## Curricular Change

There are three-types of approaches to curriculum change recognized in reform efforts (top-down, bottom-up, partnership). Top-down models are externally driven curriculum packages, usually proposed by government agencies. Bottom-up models are usually teacher initiated efforts at the teacher or school level of change. Partnership models are teacher initiated bottom-up approaches where the teacher works in collaboration with professional organizations, researchers, teacher educators, parents, and or administrators (Macdonald, 2003). Scholars would agree that most empirical evidence of curricular change occurs at the teacher level or bottom-up when compared to a top-down change models. In fact, several scholars have been highly critical of the top-down change process because it alienates teachers and prevents real change from occurring (Darling-Hammond, 1990; Fullan, 2001, 2007; Kirk, 1988; Locke, 1992; Sparkes, 1990). Fullan (2007) and Sparkes (1991) observed that teachers who adopt innovations demanded of them do not change their beliefs or values.

Implementing curricular change is highly related to teacher change (Ha, et al., 2008) and teacher level change refers to teachers, either in small groups or individually, modifying existing practices. Physical education researchers have reported the impact of the curricular change process at the teacher and school level (Bechtel & O'Sullivan, 2007; Cothran, 2001; Faucette, 1987; Patton & Griffin, 2008; Pope & O'Sullivan, 1998; Rovegno, 1997) and district level (McCaughtry, et al., 2006; Ward, Doutis, & Evans, 1999). This section will provide the context of studies from both levels of change and identify how Fullan's characteristics of change (need, clarity, complexity, and

practically) were represented. Specifically, the section combines physical education teacher change literature in relation to Fullan's (2007) theoretical model.

Using Fullan's theoretical framework Cothran (2001) and Patton and Griffin (2008) examined teacher change at the school level. Cothran (2001) examined the characteristics of physical education teachers who had successfully made curricular changes in physical education programs. The six participants attempted self-initiated curriculum changes. Four different curricular models were implemented. Two of the teachers implemented Social Responsibility (Hellison, 1995), two implemented a health-related fitness model (Jewett, et al., 1995), one teacher implemented Sport Education model (Siedentop, Hastie, & van der Mars, 2004), and one wanted his change to be wilderness sports and adventure education model (Siedentop, Mand, & Taggart, 1986). There were two characteristics these six teachers shared in initiating and sustaining change. First, these teachers wanted to make successful curricular change and reported "they reflected on their programs and the impact it had on their students" (Cothran, 2001, p. 77). Secondly these participants reached beyond their own classrooms and schools for help during the change process.

Patton and Griffin (2008) studied two teachers' attempts at implementing curricular innovations into their program. The teachers worked alongside faculty members and other teachers as an on-going teacher development project. Three patterns of change were apparent in the teachers' experience: (1) increased planning and more efficient organization and management, (2) improved alignment of instruction processes and assessments, and (3) a shift in teacher roles characterized by the use of more indirect pedagogies to facilitate student-oriented small-sided games and student peer assessment.

The importance of effective reformed-based professional development was discussed and linked to the notion that the characteristics of the project influenced the teachers' willingness to make change to their programs.

At the teacher level, Bechtel and O'Sullivan (2007) explored the enhancers and inhibitors that impacted four secondary physical education teachers to make curricular changes in their programs. Participants implemented a new instructional model in their respected programs. Results indicated that beliefs and vision enhanced change. Additionally, teachers received support from multiple sources including, principals, colleagues, and students. Two of the principals thoroughly embraced change of the program. One principal provided both emotional and financial support. Inhibitors included teachers being denied access to professional development opportunities and that the educational priorities of the district were not aligned with the teachers' vision. The participants also felt marginalized in their discipline.

Rovegno and Bandhauer (1997a) reviewed a single teacher involved in the adoption of a movement education approach in her elementary physical education program. The norms and impact of school culture on innovation and change in a physical education program were examined. Results indicated that school culture and psychological disposition supported the learning and adoption of a new curricular model. Five school norms were identified as having a positive impact on the teacher's change process: (a) the school philosophy, (b) teacher learning, (c) teacher participatory power and responsibility, (d) continual school improvement, and (e) the tendency "to feel that we can do anything" (p. 407). The school philosophy influenced the change process as the principal, staff, and classroom teachers shared similar goals and values concerning

their work and believed all teachers had connections with each other. Teachers were all expected and encouraged to learn new approaches and continue their own learning. The norms of teacher participatory power and responsibility, continual school improvement and the belief that “anything is possible” contributed to the positive climate of the school and consisted of “optimism, possibility, and empowerment” (Rovegno & Bandhauer, 1997 p. 421). Within this empowering school culture, individual teacher change was highly encouraged and promoted.

Pope and O’Sullivan (1998) provided an example of a teacher level change at the secondary level. Their investigation involved a teacher adopting the Sport Education Model and stressed the importance of individual teachers and/or department culture in the change process. Results showed that implementing a new pedagogy that challenged existing practices forced confrontation with personal beliefs and underlying assumptions about physical education. Specifically, the teacher was influenced by his personal history, home environment, work and coaching cultures, and the culture of the school. In this case, difficulty in changing occurred because the innovation (Sport Education curriculum model) was not compatible with his personal teaching culture. The researchers concluded that for change to occur, teachers and physical education programs must engage in innovations that are compatible with their culture.

In a study of elementary physical education teachers’ experiences and participation styles while implementing a movement approach (Faucette, 1987). Faucette’s research on elementary physical education teachers’ acceptance of innovations indicated that teachers fell into three categories: actualizers, conceptualizers, and resisters. Actualizers were participants whom agreed with the beliefs of the innovation

and are active users. Conceptualizers supported the program but often requested additional information, time or support before they implement changes to their teaching. Resisters were nonusers and have various needs they felt are not met during the teacher development program, such as more assistance in applying the innovations to each teacher's school site. Results suggested that only after their concerns are alleviated, can teachers move into a higher level of concern and as a result, a higher level of use. She concluded that in order for teacher development efforts to be successful, teachers' personal concerns must be addressed.

In summary, the six studies reviewed were attempts to examine teacher level change in physical education. These examples of curriculum change were conducted by small groups (bottom-up) of teachers in reaction to local concerns and opportunities as they occurred during the attempts. However, there is evidence that small-scale top-down innovations can lead to real change in physical education (Doutis & Ward, 1999; McCaughtry, et al., 2006). For the purpose of this review two representations of district/school level change in physical education were examined. Both of these change efforts were *partnership* models of change, professional development projects where implementers worked collaboratively with researchers throughout the process.

In the Saber-Tooth Project (Doutis & Ward) one focus was to improve the workplace conditions of the participants. The new curriculum and changes in workplace conditions helped raise the professionalism of teachers. Four tentative conclusions were drawn from the Saber-Tooth Project. The first was that "vision [purpose] is everything" (p. 459). The second was that workplace conditions needed to be addressed in the change process. If the workplace conditions are not supportive of effort, there will be less chance

for change. The third was on the relationships between the areas of planning, teaching, and assessment. All three areas must align if there is to be an effective program. The last conclusion from this project was that if the business of teaching was changed from the typical multi-activity approach to a more focused curriculum, physical education programs could be improved.

In the second study, McCaughtry, et al. (2006) addressed the shortage of teacher change literature in physical education by examining the emotional dimensions of urban teacher change through an interpretive methodology. Participants in the study were 15 teachers from 14 different schools in a large Midwestern U.S. school district. During the project, teachers attended three professional development workshops. First, they attended a day-long course of the curriculum. Second, they attended two day-long workshops which explained the implementation of the curriculum. Last, an experienced mentor of the curriculum visited the teacher at his/ her school for two half-days. Individual and small group teacher interviews were the primary method of data collection. Results indicated that teachers felt a sense of ownership in the project when their suggestions were heard and ultimately just liked talking to other professionals in the field. Additionally, all of the teachers felt a sense of support from their administration.

#### *Characteristics of Change and Physical Education Research*

Researchers are interested in the factors that influence change or more specifically, the extent to which teachers change their practices, beliefs, use of new materials, and learning outcomes (Fullan, 2007). Further, if any of the characteristics are working against implementation, the process will be less affective. However, the more factors supporting implementation, the more change in practice will be accomplished

(Fullan). The factors associated with the characteristics of change can be addressed in the initiation phase (planning) but must be apparent during implementation for an effective outcome. The next section will examine the results reported in the studies reviewed in relation to Fullan's characteristics of change, the need for change, clarity of innovations, and complexity of change.

*Need for change.* The "need" for change refers to the teachers' initial belief that the innovation is beneficial for their program, either to themselves or more importantly for their students. Teachers' must be willing to accept a proposed innovation during the initiation phase because the need may not be apparent until implementation (Fullan). The studies reviewed provided multiple examples of need for change. For example, teachers wanted to make successful curricular change and reported "they reflected on their programs and the impact it had on their students" (Cothran, 2001, p. 77). Teachers also felt a sense of ownership in the project when it was time to have their suggestions heard (McCaughtry, et al. 2006; Parker, et al. 2009). Positive examples of meeting teachers' needs were not always evident. For example, resisters, who are nonusers, felt that their needs were not being met during the teacher development program, such as more assistance in applying the innovations to each teacher's school site (Faucette, 1987). Similarly, difficulty in changing occurred because the innovation was not compatible with the teachers' personal teaching culture (Pope & O'Sullivan, 1998). In general, the research findings indicate that for change to occur, teachers and physical education programs must engage in innovations that are compatible with their culture. Simply, teachers must see a need for change.

*Clarity of innovation.* There is little doubt that clarity is essential, but its meaning is subtle; too often teachers' are left with "false clarity" (Fullan, 2007, p. 89). False clarity occurs when the proposed change has more to it than people perceive or realize. In the physical education literature clarity was represented through effective profession development throughout the processes provided a clear picture of the innovation's objectives, and the vision of the designers and implementers. First, Patton and Griffin (2008) discussed the importance of effective reformed based professional development. The project influenced the teachers' willingness to make change to their programs. Additionally, McCaughtry et al. (2006) explained that the status of the innovation in the district was in high regard because of the project success and objectives. In the Saber-Tooth project the initial finding was that "vision [purpose] is everything" (Doutis & Ward, 1999, p. 459). In addition, the beliefs and vision of the teachers enhanced change (Bechtel & O'Sullivan, 2007). Overall, innovations must have clear objectives and goals.

*Complexity of change.* Complexity refers to the difficulty and extent of change required of the individuals responsible for implementation (Fullan, 2007). In physical education, Faucette's study represented the complexity best in terms of levels. She labeled three different responses from teachers' in her study, actualizers, conceptualizers, and resisters (Faucette, 1987). The continuum is a good representation of the complexity of change and how teachers' perceive the same innovation differently. The example demonstrates how innovations cannot be viewed as one size fits all models.

### Role of the Teacher

Siedentop, et al., (1986) assure that teachers are the backbone of education, the effectiveness of which lies in their day-to-day teaching. However, the role of the teacher in the change process seems to be the least studied aspect of that process. One suggestion has been to search within teacher knowledge, teachers' ability to change and the mechanisms that support teachers' change must be respected (Rovegno, 2003). The role of the teacher must be specifically viewed as the change agent throughout implementation. To understand change is to understand the teacher.

Curriculum implementation and teacher practice is very involved and teachers' knowledge reflects this complexity (Fullan, 2007; Rovegno, 2003). Researchers have recognized the importance of understanding teacher knowledge (Rovegno) because it provides a more complete understanding of the curricular decisions made in the classroom/gymnasium and clearer picture of how teachers' learn. First, for the purpose of this study, research examining constructs of teacher knowledge and its framework is examined to provide clarity and understanding of the teachers' role when implementing curricular change.

The section following teacher knowledge is teachers' professional learning. Examples of teacher development models provide the context for how teachers' learn through collaboration when implementing change. Next, research on curricular change in physical education is examined through the role of the teacher. The section explores how physical education researchers have viewed curricular change at the teacher, school, and district levels. Finally, results from these respective studies are categorized according to Fullan's aspects of change.

## Teacher Knowledge

How teachers' knowledge is constructed and acquired is multifaceted. In addition, Research on teachers' knowledge and how it is acquired has pointed out that there is still much to learn. Scholars have emphasized that this information is invaluable for the sheer fact that it can inform the thinking of teaching and teacher education (Tsangaridou, 2006).

Teachers' knowledge base has taken on many forms, but cannot be viewed in isolation or without overlap. It has been suggested that teachers are not born with knowledge to teach effectively, but construct their knowledge over time and experiences (Rovegno, 2003). For example, Tom and Valli (1990) stated "knowledge can be generated through more than one epistemological tradition" (p. 374). Therefore, the section is divided into two parts. In the first section three theories of teacher knowledge are identified and briefly explained: practical knowledge, teacher professional craft knowledge, and pedagogical content knowledge (PCK). In the second section, research in physical education and education that used PCK as the framework is reviewed.

### *Teacher Practical Knowledge*

When teachers choose to implement change, they are not a blank slate, but a professional influenced by past experiences and educational beliefs. The notion of practical knowledge includes all that the teacher brings to teaching including beliefs, attitudes, feelings, reflections, gestures, temperament, personal history or experiences (Clandinin, 1992). Practical knowledge is oriented toward practice and enables teachers to know what and how to do it (Rovegno, 2003). Elbaz (1983) was the first to conceptualize practical knowledge explaining that both theory and practice informs a

teacher's decision in the classroom. Elbaz's study of one high school teacher helped conceptualize this idea. The idea or theory, even though abstract, was an attempt to better understand teacher practice based on knowledge acquired before entering the classroom. Clandinin (1985) extended this notion by concluding that areas of image inform a teacher's practices. Schön (1983) defined areas of image as a teacher's ability to recall or reflect on previous experience to guide the decision making.

More recently practical knowledge has also been defined as a broad term encompassing all a teacher does in his or her setting (Wien, 1995). In the early 1990's Wien studied five early childhood teachers in their natural setting. Using case study methodology she helped uncover, argue, and conclude that it is very difficult to teach teachers how to develop and continue implementing developmentally appropriate practice throughout the course of a career. This may be due to the fact that practical knowledge can constantly change (Clandinin, 1985). In general, practical knowledge "does provide a rich picture of the effects of experience and the conditions under which teachers use their knowledge to make sense of a complex, ill-structured, classroom world for competing goals and actions" (Carter, 1990, p. 302). However, practical knowledge is value-laden, purposeful, and oriented to the teachers' practice (Tsangardiou, 2006). Even though practical knowledge may be observed in practice, teaching experience is not the only contributor to the teacher's decisions in the classroom or gymnasium. Before entering the learning environment the teacher has previously acquired values, experiences, training, and perceptions that contribute this knowledge.

### *Teacher Professional Craft Knowledge*

A knowledge theory that is more directly related to the teacher day-to-day actions is teacher professional craft knowledge. Professional “craft knowledge” is acquired primarily through the teachers’ experience in the classroom or gymnasium rather than formal training (Brown & McIntyre, 1986). This type of knowledge informs teachers when to utilize certain strategies, tactics, and routines depending on the context and is sometimes referred to as “wisdom of practice” (Shulman, 1987; Siedentop, 1991). Understanding why a teacher makes certain decisions in practice is important when examining curricular implementation and the role of the teacher.

Craft knowledge is primarily based on Schön’s writings from the *Reflective Practitioner* in 1983. His theory suggests that teachers’ craft knowledge is shaped by everyday experiences in the classroom. Teachers are presented with scenarios, problems, and new situations each day that must be resolved or attended to. Through experience teachers find different and creative ways to face these challenges. Different approaches by teachers can be contributed to the teacher’s own style and the uniqueness of different situations.

Craft knowledge is rarely explicit and sometimes utilized by the teacher without consciousness of the use (Calderhead, 1996). This may also be referred to as the teachers’ hidden curriculum. It is not surprising that teaching experience enhances their craft knowledge. According to Siedentop (1991), physical education teacher’s craft knowledge includes knowledge about teaching practices, personal theories about practice, their students, and their curriculum.

### *Teacher Knowledge Framework*

Shulman (1986) developed a theory of teachers' content knowledge that originally consisted of the three categories of subject matter knowledge, pedagogical content knowledge (PCK), and curricular knowledge. In 1987 the framework was extended to seven categories to include: (a) content knowledge, (b) general pedagogical content knowledge, (c) curriculum knowledge, (d) PCK, (e) knowledge of learners, (f) knowledge of educational context, and (g) knowledge of contexts. The framework was developed due to the belief that educational research on teaching had been focused primarily on organizational and management skills and less on the actual content. In Shulman's words, "research on content knowledge is the missing paradigm" (1986, p. 7). In agreement with Shulman, Siedentop (2002) indicated that PCK was also physical education's missing paradigm. Although seven categories are listed and researchers agree that each is important for teachers overall effectiveness, most researchers agree that PCK integrates different forms of knowledge, beliefs, and values, which are all essential to the development of an effective teacher (Amade-Escot, 2000).

Teacher development from preservice to novice and expert can be conceptualized as transformations in teachers' knowledge structures as they gain experience (Sehren, 1995). Experts' knowledge is more organized and more connected or integrated (Behets & Vergauwen, 2006). Preservice teachers need to be taught both content and how to deliver it (pedagogy) in order to help students learn (Griffin, Dodds, & Rovegno, 1996). The shift in knowledge is exemplified in educational research (Cunningham, 2006; Neuman & Cunningham, 2009). Two examples are provided.

Capraro, Capraro, Parker, Klum, & Raulerson (2005) determined how pedagogical awareness related to a deeper and broader understanding of mathematical concepts for preservice teachers. Analysis of the qualitative data indicated that mathematically competent preservice teachers exhibited progressively more pedagogical content knowledge as they were exposed to mathematics pedagogy during their mathematics methods course. Capraro et al.'s results were similar to Marks (1990), whose study provided a description of pedagogical content knowledge in mathematics constructed from interviews with fifth-grade teachers. Results indicated that teachers demonstrating PCK understood the student learning process, could identify common errors, and could predict the difficulty of mathematical areas based on grade level (in these cases, fifth grade). These researchers suggested that if preservice or novice teachers understood the subject matter content then effective pedagogy could be enhanced. Similar suggestions have been addressed in physical education (Rink, French, Lee, Solmon, & Lynn, 1994; Rovegno, 2003; Sebren, 1995).

McCaughtry and Rovegno (2003) used developmental learning theory to analyze how four preservice physical education teachers developed pedagogical content knowledge. Results indicated that preservice teachers planned activities that were too difficult for middle school students to complete. The teachers then blamed students for not trying and not wanting to learn. When the teachers modified the lessons to match student skill ability, the preservice teachers admitted that students were not previously engaged because of the difficulty of the task. Preservice teachers felt that after they matched the task with skill level students should be able to practice and become very skilled quickly. Additionally, preservice teachers could not recognize when students were

becoming bored and disengaged because the “drills” were too repetitive. Toward the end of the unit preservice teachers started to recognize the tasks had to change to keep students enthused. These results are similar to Graber (1995) who found that student teachers had difficulty incorporating pedagogical content knowledge and admitted that they felt uncomfortable with content that was unfamiliar.

At the in-service level, Barrett and Collie (1996) described lacrosse-specific content within the context of children learning lacrosse from teachers learning to teach it. All of the teachers were able to set up an environment for student success and elicit the appropriate movement at a very basic level. It was reported that the first four introductory movement skill components of lacrosse were accomplished with consistency by the students. The last three (more advanced) movements could be demonstrated but with less consistency by the teacher. Similar to McCaughtry’s and Rovengno (2003) findings, inexperienced teachers were challenged when advancing to more difficult movement patterns. Teachers new to the profession or to the content area tend to teach to the lesson and not to the pace of the class and seem to leave students in the same task for long periods of time (Griffey & Housner, 1991; McCaughtry & Rovegno, 2003). Other educational research has focused on the development of teacher knowledge by examining the differences in thinking between expert and novice teachers (Berliner, 1994; 1986; Carter, Cushing, Sabers, Stein, & Berliner, 1988; Lin, 1999). This line of research also determined that when beginning and experienced teachers were asked to evaluate classroom scenes, novices tended to offer superficial, general observations, while experts quickly recognize and took into account the complexity of the problems (Carter et al., 1988; Darling-Hammond, 2000).

Experience is a critical source of knowledge for teachers (Schempp, 1993). Siedentop and Eldar (1989) described and explored experience, expertise, and effectiveness in physical education. Their findings indicated that experience was essential, but not a sufficient condition for expertise, and high subject matter knowledge and skillfulness were properties of expertise as well. Therefore, a combination of criteria must be present for a teacher to be classified as an expert. Knowledge criteria include experience, subject matter knowledge, and pedagogical knowledge.

Rovegno, Chen, and, Todorovich (2003) described four accomplished teachers' pedagogical content knowledge of teaching hand dribbling to third grade children. The data indicated that expert teachers were able to vary activities with students at different levels and could give individual tasks or a mix of whole group tasks. All of the teachers created ways for the learners to concentrate on the movement itself. For example, teachers presented a task that would make students look ahead if the cue was "eyes up" (Halverson, 1966) then the task elicited the desired movement pattern. Teachers also used very specific directions to set up game-like situations/ tactics without causing students to forget about skill. The results were similar to Schempp, Manross, Tan, and Fincher (1998) who examined the influence of subject matter expertise on teachers' pedagogical content knowledge. Teachers did not differentiate student's goals even in their area of expertise. Teachers were also more willing to change/ modify lesson activities and instructional strategies in areas of expertise. Therefore, student goals were not viewed as a reason to change the activity. However, examples of lesson modifications were present but disconnected from the students' needs.

### *Summary*

Inquiry on teachers' knowledge has grown rapidly in an effort to explore and record the knowledge base of teaching (Tsangaridou, 2006). The notion of practical knowledge encompasses all that the teacher brings to teaching and practice. Professional craft knowledge is acquired primarily through the teachers' practical experience in their day-to-day practices. Pedagogical content knowledge specifically addresses the delivery, organization, and understanding of knowledge areas for a teacher to be successful. In the last 20+ years there was a shift to pedagogical content knowledge.

Studies on teachers' PCK have described how preservice and experienced teachers acquire, elaborate, and transform their PCK. Results emphasize that in the beginning of learning processes teachers do not recognize the details of a lesson (Rovegno, 2003). Preservice teachers tend to teach to the lesson rather than to the student. As their knowledge base is extended they tend to focus more on student outcomes. This is true if the preservice or beginning teacher has prior knowledge in the subject matter being taught. The more the beginning teacher knows the content the more PCK is apparent.

Experience enables teachers to understand theory in practice and theory through practice (Rovegno, 2003). The more experience teachers have the better they are able to move through the content. Specifically, experienced teachers are able to focus on lesson objectives. Concerns about management and routines do not seem to burden the experienced teacher as much, which enables content and pedagogical focus. This is the essence of Shulman's theory of knowledge base. Teachers use their experience and tacit

understanding of events to develop a constantly changing, adjusting, and sometimes improvising sense of knowledge (Schön, 1983) to use in practice.

### Teachers' Professional Learning

Evans (2002) argues that the terms teacher learning and teacher development are widely used but conceptually confusing. She argues that teacher learning impacts and enables teachers to develop. Thus, professional development (PD) is the process whereby teachers' enhance their learning; specifically, knowledge, skills, and growth (Evans, 2002). Professional development has been approached multiple ways and has been deemed both positive and negative in terms of assisting teachers.

Traditional professional development guided by one-shot workshops has been viewed negatively yet should not be considered entirely ineffective. For disseminating large amounts of simplistic information the traditional approach may be the most viable. However, traditional professional development approaches seem to be the least teacher centered. Additionally, little actual teacher learning occurs when time is short and professional development programs are not teacher centered (McCaughtry, Hodges-Kulinna, Cothran, Martin, & Faust, 2005).

There is a growing awareness that in order for education to meet the needs of students, improvement of teachers' career-long professional development (CPD) is essential (Borko, 2004; Department for Education and Employment [DfEE], 2001; Reynolds & Teddlie, 2000). The CPD research literature has provided support on what should be the objective of effective professional development. As Fishman, Marx, Best, and Tal (2003) pointed out "professional development should fundamentally be about teacher learning" (p. 645). Kirk and Macdonald (1998) viewed teacher learning as an

“active and creative process involving an individual’s interaction with physical environment and with other learners” (p. 377). The result of all of this should be student learning (Guskey, 2002)

*Professional Learning Communities in Physical Education*

In the educational context, professional learning communities (PLC’s) are groups of educators formed to obtain a specific outcome and/or objective. Educators may include but are not limited to: teachers, administrators, students, university faculty, and project facilitators. PLC’s may include a variety of people depending on the objective, however, to be successful the PLC must provide a forum for professionals to communicate and collaborate.

Studies of professional learning communities (PLC’s) suggest that when teachers are provided an environment conducive for collaboration and learning together, they are able to develop and share a body of wisdom gleaned from their experience (McLaughlin & Talbert, 2001; Rosenholtz, 1989). PLC’s framed by situated learning theories in education, are not new ideas, yet they are gaining momentum in physical education literature (Rovegno, 2006). Those who have used this perspective and the tenets of PLC’s in physical education have done so in two main areas: a) teaching and learning, and b) effective teacher development.

Physical education research is just beginning to understand the value of professional learning communities. Understanding how these groups are established, sustained, and influence change is even more recent. However, a growing number of studies in physical education reported that teachers have benefited impressively from their membership in these groups. For example, teachers have reported considerable

evidence that these groups have provided a forum for change as well as increasing confidence in their own abilities and willingness to advocate for the profession as a whole. Additionally, it appears teachers are more willing to take risks, reflect on their failures, and share successful programs and practices because of their involvement in a PLC (Deglau, Ward, O'Sullivan, & Bush, 2006; Parker, et al., 2009). In England, teachers have learned informally with and from each other because of the opportunities provided within a professional learning community (Armour & Yelling, 2007). Furthermore, PLC's have been attributed, in part, to the empowerment of teachers resulting in teachers forming strong identities as teaching professionals (O'Sullivan, 2007; Parker et al., 2009), building capacity as instructional leaders by working and sharing with others, and creating new images of themselves as teachers (Deglau & O'Sullivan, 2006; Parker, et al.). In these cases, for learning to occur, communities of teachers found ways to create opportunities for members to negotiate and create meaning, thereby creating identification with the community and empowering ownership (Deglau & O'Sullivan). Finally, teachers have been reported to develop a commitment to advocate for their subject at a wider policy level as well as refine their teaching role as a result of their participation in a PLC (Deglau & O'Sullivan; O'Sullivan; Parker et al.).

#### *Mentoring as Professional Learning*

Making new meanings, behaviors, skills, and beliefs depend on whether or not teachers are working in isolation or are exchanging ideas, support, and positive feelings about their work. The quality of "working relationships among teachers is strongly related to the implementation process" (Fullan, 2007 p. 96) and collegiality, open

communication, support and help, learning on the job, getting results, and on the job satisfaction are closely related.

Early research provided multiple examples of teachers being isolated from their colleagues (Lortie, 1975; McPherson, 1972; Sarason, 1982). The most damaging examples of isolation seemed to affect beginning teachers. This isolation takes the forms of physical, social, and psychological isolation (Gordan, 1990; Houston & Felder, 1982; Kurtz, 1983; Macdonald, 1995). Physical isolation seemed to be more severe among physical educators. Elementary physical educators are especially affected by isolation because in most cases there is only one elementary physical educator in the building and some also travel from school to school (Solmon, Worthy, & Carter, 1993). Isolation is intensified by the marginalized status of physical education (Smyth, 1995). Unlike other subject areas, physical education is not responsible for content on most standardized tests and physical education teachers “feel alone and isolated” (Eldar, Nabel, Schechter, Talmor, & Mazin, 2003, p. 40). The professional isolation and marginalization reported in education and physical education are not new; however, ways to combat the problem has gained more recent attention.

Mentoring models have been used in school settings, representing multiple approaches to the induction of new teachers (Fidler & Haslekorn, 1999; Villani, 2002). Traditionally, mentoring is viewed as a hierarchal relationship between mentor and protégé (Danielson, 2002). The knowledge gained by the mentor, through experience, is passed along to the protégé. Mentors usually facilitate the professional growth of new teachers by providing them with opportunities to observe and provide feedback during teaching practices (Patton et al. 2005).

Certain aspects of mentoring must exist in order to exert a positive influence on beginning teachers. Mentoring must include, facilitators with the training to run quality programs, daily and weekly meetings between the mentor and beginning teacher, on-going training for mentors, and time for goal setting (Moir, 2003). Research in general education (Bey & Homes, 1992; Huling-Austin, 1990; Huling-Austin, Odell, Ishler, Kay, & Edelfelt, 1989; Serpell & Bozeman, 1999; Stroot, Fowlkes, & Langholz, 1999) has shown very positive examples of mentoring programs for beginning teachers yet few physical educators have mentors during their induction years (Mawer, 1996; Stroot & Ko, 2006; Tannehill & Coffin, 1996).

In a study of experienced physical education teachers' mentoring beginners in the field, McCaughy et al. (2005) positive results led them to conclude that reform-based professional development can be effective in enhancing mentors' professional learning. However, this concept is not without concern. For example, "mentors lacking content knowledge compared with protégé might point to an important concern of mentoring" (McCaughy, p. 339). Smith and Ingersoll (2004) voiced the same concern in their review of mentoring. Although there are some concerns of the model overall, mentoring models have been beneficial to professional learning if implemented appropriately. Little (1990) lists numerous issues that affect the formal mentoring process of novice teachers which include: (a) selection criteria of mentors, (b) status and relationship issues between mentors and teachers, (c) mentor time constraints, (d) removal of capable teachers selected as mentors from their own classrooms, (e) quality of instruction by substitute teachers who fill in for mentors, (f) teachers' perceived visibility of the mentor in "action" and its connection to the teacher's level of perceived competency and ultimate

trust of the mentor, and (g) inappropriate meshing and adverse sophistication between the mentor and the teacher that lead to perceived irrelevance in assistance and poor use of time. Combined, these factors result in effective or ineffective relationships between the mentor and protégé (Patton et al. 2005).

The majority of mentoring literature focuses on the benefits to beginning teachers during induction years. Additionally, there are examples of the mentors benefiting from the process (David, 2000; Holloway, 2001; Resta, Huling, White, & Matschek, 1997). For example, Hawk's (1986-87) findings suggested that not only do the beginning teachers benefit from the process, but everyone involved may receive professional learning. Moreover, there are examples of veteran teachers receiving beneficial mentoring through a long-term collaborative relationship with researchers (Borko, et al, 2000; Borko, Mayfield, Marion, Flexer, & Hiebert, 1997; Cohen, McLaughlin, & Talbert, 1993). In the physical education literature, the dynamic between teachers' and researchers' have been addressed (Patton et al., 2005). Results indicated that the mentor/researchers were there to help the teachers find practical solutions in their teaching context which in-turn provided them with a sense of support and empowerment during the process.

The traditional approach for mentoring models between cooperating teachers (CT) and preservice teachers (PT) is similar. Thus, the CT models lessons and the PT tries emulate the CT's actions. Alternatively, collaborative efforts between CT's and PT's have also been examined (Byra, 1996). The suggestion has been for PT's and CT's to collaboratively plan and teach. Further, CT's feedback shifts from a focus on

developing teaching skills to a focus on the developing the PT's reflective skills (Behets & Vergaruwen, 2006).

### *Reflection*

Teacher development from preservice to novice and expert teachers can be conceptualized as transformations in teachers' knowledge structures as they gain experience and expertise (Sebren, 1995). The literature on teacher knowledge takes into consideration that experience influences how teachers conduct day-to-day procedures. The question that remains is: How do you speed up the process of effectiveness for teachers who are without years of experience? One suggestion that has been reviewed is teacher reflection.

Reflection is defined as a mental process of structuring and restructuring an experience (Korthagen, 1999). Additionally, practicing reflection is as important as practicing instruction if attempting to decrease the gap between novice and experienced teachers. However, Hall & Smith, 2006 suggested, "if you mention the word reflection to educators, teachers, professors, and administrators, and inquire about the meaning and their understanding of it and you are likely to receive numerous responses and definitions" (p. 432). Therefore, the advocacy for reflection is based on the general acceptance of the complexity of teaching, resulting in the image of a teacher as a thoughtful decision maker (Behets & Vergaruwen, 2006).

Physical education scholars have recognized the necessity of preparing reflective teachers (Byra, 1996; Hall & Smith, 2006; Tsangaridou, 2005; Tsangaridou & O'Sullivan, 1997/ 1994; Tsangaridou & Siedentop, 1995). However, it is suggested that examining reflection in physical education are sparse (Graber, 2001; Hall & Smith, 2006;

Tsangaridou, 2005). Although, studies that have been conducted have indicated that reflection in a variety of forms is beneficial for teachers at all career stages.

The critical role of reflection in teacher development is influenced by how reflective practices are taught by teacher educators. Reflection can be focused on teaching strategies, subject matter, and/or the students (Sebren, 1994). Therefore, making sense of what the goal of reflection should entail is confusing especially for the beginning teacher. To address this issue Tsangaridou and O'Sullivan (1994) proposed a reflective framework for teaching in physical education describing the focus and level of reflection. Overall, the framework suggests that teachers' reflection should focus on: managerial aspects, situational events, and political aspects of teaching. The levels of reflection included a critical and rational explanation and evaluation of various teaching actions.

Specific strategies have been used by teacher educators to enhance the reflective capabilities of preservice teachers during field experiences (Tsangaridou & Siedentop, 1995). Common strategies include: video analysis, journal entries, logbooks, and portfolios (Senne & Rikard, 2004). However, the strategies are not effective unless they are used to help the users to become self-directed learners (Korthagen, 1999). Therefore, the importance of reflection is not in question but the ways to effectively combine previous experiences and examine the use of the practice while the teacher is attempting change is crucial to the current study.

### Reflective Summary

In qualitative research, it is important to provide a theoretical framework to examine the research question. Fullan's (2007) perspective has been selected for multiple reasons. First, the framework is well renowned and used in terms of educational reform

both domestically and internationally. Second, the framework is complex but lays out the steps for successful curriculum change while also providing factors that influence implementation. Third, there are two major ideas that I feel are important when looking at curriculum change (a) the notion of change being multidimensional, change in materials, teaching practices, knowledge and beliefs and (b) the constructs of the teachers' role in implementation and the characteristics of change (need, clarity, and complexity). Finally, there are many studies in general education that use Fullan's perspective to examine change; however, to date there are few in physical education. When examining a teacher's attempt of implementing curriculum change many areas have to be considered. In the literature reviewed, factors associated with teacher understanding or knowledge and how teachers' learn have played a critical role in the change process.

## CHAPTER III

### METHODOLOGY

The study stemmed from what was an investigation into a community of practice that formed around an ongoing curriculum development project (Parker, Patton, Madden & Sinclair, 2009). The curriculum development project was one objective of an Carol M. White Physical Education Program (PEP) grant awarded in 2004 and included four elementary physical education teachers, the school district curriculum coordinator, and three project facilitators, combined they formed the curriculum sub-council. The physical education teachers worked in less than ideal conditions and came to the project with little-to-no knowledge regarding curriculum development (Parker et al.). However, their efforts resulted in a curriculum toolkit (Appendix A) for the district's elementary physical education specialists to utilize. The curriculum toolkit was essentially the roadmap the participant implemented throughout the school year.

The purpose of this study was to examine the reflections of a physical education teacher after the first year of new curriculum implementation. Case study design allowed for the participant to tell her story, describe her experiences, and capture her perceptions of implementation. Data were collected to provide a detailed description of the teacher's perspectives and reflections after being engaged in curriculum implementation. This investigation included the use of formal and informal interviews based on field notes of prior classroom observations, documents, and artifacts. In this chapter information is

provided regarding how data were collected and why specific research methods were used. Further, data management and the development of categories and themes (data analysis) representing the teacher's reflections of curriculum change are explained. Data analysis resulted in her story of the *context* leading up to implementation, significant stories during *implementation*, and a thematic representation of her *perspectives* after one year of implementing curricular change.

### *Case Study Design*

There are five widely used qualitative traditions of inquiry: biography, phenomenology, grounded theory, ethnography, and case study (Creswell, 2007). Case study design was selected for this study. A *case* is defined as a specific complex functioning thing, a bounded integrated system (Merriam, 1998; Stake, 1995). To be considered a case, the entity being examined could be as small as one individual or as large as an entire school (Lichtman, 2006) as long as it is something special to be studied (e.g., person, program, process, or event), and is something we do not sufficiently understand but want to (Stake, 1995). In general, "case studies help us to understand processes of events, projects, and programs and to discover context characteristics that will shed light on an issue or object" (Sanders, 1981, p. 44). Additionally, to be viewed as a case there must be a finite amount of time for data gathering (Miles & Huberman, 1994). Therefore, examining the reflections of a physical education teacher after the first year of a new curriculum implementation, by these criteria, is considered a case.

A case can also be portrayed as the process to obtain an in-depth understanding of the meanings and descriptions of a specific situation presented by the teacher (Pope, 2006). Therefore, case study design was used because it has a distinct advantage when it

came to answering “how” and “why” questions (Stake, 1995). Understanding “how” and “why” the teacher choose to make certain decisions during the process of curriculum implementation was a central tenant of the study and provided an in-depth understanding of the processes, meanings and interpretations. The question of “how” focused on the teachers’ ability to reflect on specific events that occurred during the implementation process. The “why” was examined when the teacher was asked to provide examples of different decisions made during implementation.

An important element in conducting the case study was to carefully and appropriately determine and select the entity being studied. Patton (1990) argued that logic and power of purposeful sampling lays in selecting information rich cases. Information rich case studies are those from which one can learn a great deal about issues of central importance to the purpose of the research. By concentrating on a single teacher, in depth data were collected. Additionally, this case study added depth and detail to the literature by providing specific examples of one teacher’s reflections after implementing curricular change for one year.

In summary, a case study design was selected because of the nature of the research problem and the research questions being asked. Case study design offered a significant way to examine a physical education teacher in her unique real-life situation. The merits of case study design outweighed the limitations, which included issues of credibility, transferability, and dependability, which are addressed under trustworthiness. To provide context and background it is important to understand the participant, entry to the site, researcher’s perspective, and the relationship between the researcher and the participant.

*Participant*

Stephanie (pseudonym) was selected as the participant for the study for five reasons. First, she was a passionate teacher who cared about the quality of her physical education program. To her physical education was not a time for students to “take a break” or have “free time” from other academic subjects, as such she held her students accountable. Having spent time with her during the curriculum project it became apparent that the process of curriculum implementation was also very new and exciting. Additionally, during observations of her working with student teachers it was also evident that she was making every attempt to implement the new district curriculum. To truly capture a teacher making an attempt at change it was important to select someone that was passionate about the attempt. Curricular implementation is complex and potentially difficult thus finding a person that would do everything in her means to be successful and more importantly continue the process was essential to gain in-sight of an attempt over one year.

Second, even though the process was new to each project member Stephanie classified herself as being the least experienced. She taught a broad range of content and took her job and the new curriculum very seriously. As the least experienced member of the curriculum sub-council Stephanie was influenced by less variables than the other members. For example, one member taught adapted physical education with 20+ years experience, one had 20+ years experience teaching elementary physical education in the district, and one teacher used parts of the curriculum toolkit to complete portions of her master’s degree. Therefore, Stephanie was the by far the least experienced and had truly

never attempted a change of such magnitude throughout her career. Because change is difficult, understanding why teachers try it for the first time is important.

Third, Stephanie was insightful and willing to talk and reflect about her experiences, including frustrations and successes she had encountered during the process. While observing her teach at least 100 lessons during the first year of implementation a commutative relationship was constructed. This was an important contribution to the design as she was willing to provide specific examples which strengthened interaction and essentially the findings (Curtner-Smith, 2001).

Fourth, for two years prior to implementation Stephanie had been involved with the curriculum development project and was a contributing member to the community of practice. During that time she attended most if not all of the meetings and provided input during the development and construction of the district toolkit, which included benchmarks and performance indicators that were created for grades one through five. Additionally, she had been a member of the professional learning community (PLC) that was developed among district elementary physical educators during the year of implementation. The PLC's goal had been to disseminate the new toolkit (curricular guide) to the other physical education specialists in the district while providing suggestions on implementing the document. Stephanie had contributed to this effort by presenting her experiences of implementation to district elementary physical educators. Therefore, Stephanie's dedication to seek outside assistance was important to the study's design to capture external influences during the process.

Fifth, Stephanie was 30 years old and had been at Shasta Elementary (pseudonym) for her 7 year career. Shasta was at a school that typified the student

demographics of the district. She started teaching at Shasta shortly after the completion of her preservice training. She completed her elementary preservice experience by student teaching at Shasta under Bridget (cooperating teacher) who happened to also be a part of the curriculum team. When Stephanie completed the requirements for her teaching licensure she was informed that Bridget was transferring to another school in the district and was asked to apply. She accepted the position and was anxious and nervous to start. Understanding the context in which Stephanie desired to work at Shasta was important to the design of the study. Specifically, detailing prior events and interactions was invaluable when attempting to report prior experiences that influenced her decisions during implementation.

Since Shasta elementary typified the demographics of the school district in which the curriculum was being implemented it is important to understand in more detail the specific demographic of the school. Shasta Elementary School is located in a mid-sized city in the western U.S. At the time of the study, Shasta had 512 students (92% Hispanic; 8% Caucasian) most of whom were from lower socioeconomic households as evidenced by 86% rate of eligibility for free or reduced lunch (Greeley-Evans, 2009). A large percentage of the students were English language learners and it was not uncommon to hear students speaking Spanish to one another and occasionally students were used as translators for students new to the English-speaking environment.

Shasta was a one story circular building built in 1963. It was a closed campus school, allowed before and after school programs, did not require student uniforms, required parent conferences, and encouraged community programs in the building. There were a total of 27 classrooms, with five Kindergartens, four 1<sup>st</sup> grade classes, four 2<sup>nd</sup>

grades, three 3<sup>rd</sup> grades, four 4<sup>th</sup> grades, three 5<sup>th</sup> grades, a library, computer lab, music room, and gymnasium. It had 27 full time teachers and therefore a student to teacher ratio of 16:1.

The gym at Shasta is located on the east side of the building and runs north to south with a door leading outside in the northeast corner. The equipment room and Stephanie's office is located along the south end of the gym, the equipment room is long and organized in a manner so that Stephanie knew where everything was (most of the time), easily accessible, and easy to carry out to the gym.

The gym itself was carpeted, with two main basketball hoops (at 10 feet) on the north and south ends, two more hoops (at about 8 feet high) on the east side wall, and one on the southwest side of the south wall. Traversing walls covered the west and north walls, with a cargo net hanging from the ceiling (behind the north end basketball hoop) that was tied to the wall. Padded mats covered the traversing walls and these mats were also along half of the east sidewall, where the basketball hoops were located. Upon entering the gym the first object seen was her dry erase board that had the schedule for that day, class activities listed, and the lesson objectives. There were also posters and educational information on the south and east walls. Overall, the environment was very welcoming and esthetically pleasurable.

In conclusion, selecting the correct participant for an in-depth case study is extremely important. A participant who is willing to provide specific examples of their experiences strengthens the findings. Selecting the participant in this study based on the school she taught at was important because results could potentially be transferred to teachers' teaching in the same context. It is no surprise that the teachers involved in the

previous curriculum project had diverse backgrounds and each was a very dedicated and passionate physical educator. All of the teachers attempting to implement the new curriculum would have had their own unique story worth telling. However, after careful consideration, a case study of Stephanie's experience provided meaningful and representative insights about the implementation process. Therefore the study told her story from her perspective one year after implementation of the new curriculum tool kit.

### *Entry to Site*

After determining the participant and before beginning the study permission was sought from all involved entities: the school district, the school, the teacher, and the university. Initially Human Subjects approval was submitted through the UNC Internal Review Board (see Appendix B) and approved. Simultaneously, approval was sought from the local school district. The district's assessment coordinator approved the proposal but required that she, the teacher and principal approve all data results before presenting or publishing outside the dissertation defense. Once the stipulation was agreed upon the school and teacher were contacted. Both the principal and Stephanie were eager to participate and gave permission. Stephanie signed a letter of informed consent (Appendix C) explaining the purpose, risk, and rights of the study. She was assured that the maintenance of her anonymity was a priority. A pseudonym was provided for her when writing descriptions of this study for publication, presentation, or discussion with colleagues.

### *Researcher Perspective*

It is important for qualitative researchers to acknowledge that subjectivity is an inevitable component of research (Peshkin, 1988). Researchers should "be aware of how

their subjectivity may be shaping their inquiry and outcomes” (Peshkin, p. 17).

Additionally, acknowledging the researcher’s subjectivities and providing the researcher’s perspective is one method of strengthening the study’s dependability (Lincoln & Guba, 1985). Therefore, this section will be presented in two ways: (1) a brief description of the researcher’s background and, (2) the relationship between the participant and the researcher.

First, my interest in the inquiry stemmed from my experience as a public school elementary physical educator and graduate assistant. During my short tenure as an elementary physical educator (4 years) I had the opportunity to be a part of a curriculum committee for that school district. As a committee member I helped design and implement curriculum initiatives such as assessments, district standards, and instructional strategies. In addition, during my time as a graduate assistant I helped design a semester long lab assignment that had preservice teachers build a secondary physical education curriculum. Both experiences led me to want to understand the process of curriculum implementation in more detail and from a practical perspective.

Second, readers of this dissertation should be aware that I had been involved in the previous curriculum project for a total of two years in a variety of ways. During the project I served as a non-participant observer. This role included interviewing the teachers’, going to meetings to stay informed, videotaping and audio-recording meetings, writing field notes of other meetings, analyzing data, and providing feedback on research papers submitted about the curriculum group. We had extended conversations about the implementation process and multiple side conversations during lesson activities. In addition, I provided feedback on lesson plans, developmental analysis content charts

(DAC), and assessment ideas via email. Furthermore, on multiple occasions I modeled lessons in her physical education classes. Through these multiple interactions I had become somewhat of a fixture at Shasta Elementary during the implementation process. For example, I modeled a jumping/ landing and throwing/ catching lesson during the fall semester. At the completion of each lesson in-depth conversation occurred pertaining to lesson activities and utilization of DAC protocol. Stephanie got married and changed her last name, at the beginning of implementation of curriculum implementation, however students would often ask if I was her new husband. With that said, most students knew me as Mr. Madden from UNC.

It is also important for the reader to understand that my relationship with the participant was very professional, productive, and two-way. Our relationship had developed so much during the implementation year that if other teachers/staff in the building asked about my presence, she referred to me as “her UNC Doc Student”, “her point man” or “her instructional coach”. Though our relationship had grown and I was a full participant in Stephanie’s attempt to implement this new curriculum I felt this strengthened the study. As noted by Macdonald (1999) and Curtner-Smith (2001), this type of relationship is often advantageous because it leads to a climate in which teachers feel comfortable and enjoy reflecting on their experiences.

#### Data Collection

Data were collected using two methods. First, field notes and documents and second, interviews. In addition to following up on the previous interview data, field notes from prior classroom observations and collected artifacts were used to frame the next formal interviews. This section will describe how field notes and documents were used to

capture major events to inform the interview process. In addition, the number of interviews, how interviews were conducted, reasoning for additional interviews is explained.

### *Field Notes and Documents*

During the fall and spring semesters field notes were taken to document classroom major events, student reactions, and teacher's decision making process. Field notes were then used as a form of stimulated recall. For example, during one observation it was noted that Stephanie decided to introduce an activity that was not on the lesson plan. When asked, she responded by describing how the original planned-activity did not work with same grade level class that morning. A response like that initiated a series of probing questions to find out if she always, sometimes, rarely, changed her lesson plans.

School documents were also collected and reviewed. Documents included the curriculum toolkit, implementation plans, written assessments, journal entries, old plan book pages, the physical education schedule, block and lesson plans, sample assessments, and any additional written materials used during the school year. Descriptive written field notes from observations provided a record of observed class events, teacher behaviors, student behaviors, my interpretations of events, and any activities that occurred throughout the class sessions. Both field notes and documents were used to inform questions and as another form of data to lend support to interview responses.

### *Interviews*

The primary data source for this study was multiple formal interviews based on descriptive field notes of school observations and accompanying documents. Formal interviews were semi-structured and scheduled at a time and place that was mutually

agreeable. The purpose of the interviews was to collect Stephanie's thoughts, feelings, concerns or interests relative to the new curriculum implementation process and reflect on her experience after one year. A semi-structured interview format was chosen as the best interview protocol because this approach allowed the freedom to explore issues that Stephanie mentioned during the interview that did not appear in the interview guide. The flexibility of the semi-structured interview (i.e., asking further probe questions) was important in discovering how she viewed her experience of implementation (Patton, 1990; Stake, 1995). Each semi-structured interview was conducted at the school site. Stephanie taught a summer school class in the morning and therefore the interviews usually took place after the students departed. The first formal interview focused on Stephanie's experience during the implementation process. Specific questions included the professional development project prior to and during the first year of implementation, her reflections on the student teachers presence during the fall, and her overall experience during the process followed by a series of weekly formal interviews. A series of semi-structured interview guides were used to conduct all interviews. Examples of several of the interview guides are provided in Appendix D. Initial responses to interview guides, the observational field notes, the curriculum toolkit, documents such as lesson plans, assessments, and the researcher's knowledge of her experiences were used to develop additional probing questions. The majority of interviews became very conversational because of relationship developed. The final interview focused on Stephanie's overall impressions of her attempt at implementing curricular change. All interviews were digitally audio-recorded.

A total of 13 initial interviews were conducted during the summer following her first year of implementation. Interviews continued until the data and findings were saturated (Merriam, 2002) that is, concepts were heard over and over again. Ten of 13 interviews were transcribed verbatim prior to conducting the following interview. On three occasions, transcriptions prior to the next interview did not occur. The final three interviews were conducted in a one week time period. Therefore, the turnaround was too fast, although, the interviews were reviewed audibly and questions were noted prior to the next meeting when transcripts were not complete.

After the interviews were transcribed and analyzed, two additional semi-structured interviews were conducted. The 14<sup>th</sup> interview asked questions specifically addressing the relationship Stephanie had developed with one of the student teachers. The interview was set-up in a three-way conversation discussing events that had occurred 18 months prior. They were also asked to comment on their communication after his departure. The 15<sup>th</sup> semi-structured interview was conducted by one committee co-chairperson that addressed the researchers influence on implementation. Upon multiple conversations with the committee chair it was apparent that the researcher influenced the process as a form of support. However, the data did not represent this notion. Therefore, the 15<sup>th</sup> and final interview questioned the relationship directly.

### Data Analysis

Data collection and data analysis occurred simultaneously (Merriam, 1998); therefore, data analysis informed the data collection process. Data analysis was conducted to address three research questions: (1) How did the teacher's previous experience influence decisions during initiation? (2) How did the teacher change her

teaching materials and practices during the process?, and (3) What are the teacher's perceptions of her experience of implementing a new?

Data analysis started during the transcription of interviews. Two computer programs were used while transcribing interviews. The researcher used both express-scribe and Microsoft Vista voice recognition. Express-scribe was used to speed-up and slow-down the audio replay which was received using head-set with microphone. The voice recognition would translate voice to text. The researcher listened to the interviews and repeated the words verbatim into the microphone. Words that were incorrectly translated were edited. The employed protocols allowed the researcher to listen, repeat, stop the audio feedback, and write notes (thoughts and ideas) while transcribing.

An inductive approach was used to analyze these data. Interviews were analyzed using two distinct yet overlapping processes of analysis derived from a grounded theoretical perspective: open and axial coding (Corbin & Strauss, 2008). Coding of raw data and the construction of categories were completed simultaneously to capture relevant characteristics. Open coding involved the process of conceptualizing, defining, and developing the categories. Each concept and category was coded using three steps. First, concepts were initially coded by the use of different color highlighters. Second, highlighted concepts were combined and noted suggestions added to develop categories. Finally, after categories were identified, their properties were specified and showed how concepts vary dimensionally along those properties. Each phrase of every interview was read line by line, questioned, and coded into concepts. Concepts were consistent and repetitive words that stood for ideas contained in the data. Initially, 75 concepts were

identified and coded. Eventually, concepts with shared properties and categories were developed reducing the number of categories to three with multiple sub-categories

The axial coding phase was used to identify subcategories and to investigate possible interaction among these subcategories. The goal was to systematically develop and relate categories. This step included the process of sorting out the relationships between concepts and sub concepts to discover the ways that categories related to each other. It must be noted that the categories were referred to as themes and although open and axial coding seemed to be two separated types of coding they “go hand in hand” and occurred simultaneously (Corbin & Strauss, 2008 p. 198). Specific examples and details of data analysis are provided in Appendix E.

#### Trustworthiness

Lincoln and Guba (1985) described the evaluation of qualitative data as trustworthiness, meaning the “goodness” or quality of the research. Goodness is a term open to interpretation, but in qualitative research it means whether the study was conducted in a rigorous, systematic, and ethical manner, such that the results can be trusted (Merriam, 2002). The strength of any qualitative study relies on the trustworthiness of the data collection process and the ultimately the findings. It’s understood that rigor is as valid a concern in qualitative research as in any other kind of research. There were multiple methods (triangulation, member checks, etc) used to ensure trustworthiness in this study. With a small N and no random sampling trustworthiness was dependent upon the credibility, transferability and dependability of the data (Merriam, 1998). All three terms are defined and described.

### *Credibility*

Credibility suggests that the results should be evaluated from the participants' and researcher's point of view (Lichtman, 2006). Multiple methods were used to ensure credibility. Credibility was initially strengthened by the manner in which the interviews were transcribed. I personally transcribed all interviews and listened to them multiple times to ensure accuracy. Credibility was also enhanced by triangulation of multiple data sources. Data triangulation refers to the practice of collecting data from multiple sources (Patton, 1990). Merriam (1998) noted that triangulation clarifies insufficient data and assesses the accuracy of findings. Potential flaws in one method of data collection maybe overcome by using other methods. Interviews, documents, and artifacts were used as a data sources. Utilizing multiple data collection techniques allowed for a more comprehensive presentation of information. Each data source was used to crosscheck other data sources in an effort to provide in-depth information about Stephanie's experiences and reflections during the process. Stephanie's statements, detailed descriptions of class events, lesson plans, developmental analysis of content charts (DAC), and the curriculum toolkit were used to examine the study purpose and subsequent research questions.

Other methods to enhance the credibility of the study included both member checks and peer review. Member checks involved "taking data and tentative interpretations back to the people [Stephanie] from who they were derived and asking them if the results were plausible" (Merriam, 1998, p. 204). Stephanie was asked to comment on my interpretation of these data, which included the thematic findings. She had the opportunity to make any comments or requests including additions, deletions or

changes. Additionally, throughout the process she was informed of initial interpretations (categories and initial themes) of the data and asked to comment for accuracy. She provided comments on several sections. For example, first the researcher had misperceived the notion of parent influence on her decision to become a physical educator. Her suggestion was noted and changed to better reflect her perceptions. Second, Stephanie commented on her former principal's influence and again it was changed to clarify her point of view.

A peer reviewer was proposed for this study. A peer review refers to having another person check interpretations, perceptions and decisions made to the data (Locke, Spirduso, & Silverman, 2001). A colleague, former graduate student, was asked to review some of the raw data and assess whether the initial and final findings were plausible based on the data. He was also asked to raise difficult questions, identify possible alternate themes, and question how the meanings of the data were constructed. Even though multiple conversations were had about the findings and the process the researcher failed to send concepts and categories. However, multiple copy editors reviewed the writing and questioned the findings throughout based on the researcher's request. The results were clarified to represent the data and writing. Additionally, multiple (20+) conversations occurred between the researcher and dissertation committee chairpersons. Feedback was provided on interpretation of findings and an appropriate written representation.

### *Dependability*

Dependability emphasizes the need for the researcher to account for the ever-changing context within the environment (Lichtman, 2006). Because educational settings

are highly contextual and constantly evolving, a study replication producing the same findings would be near impossible. In qualitative case study design, the more important question maybe whether the results are consistent with the data collected (Merriam, 2002).

Lincoln and Guba (1985) were the first to refer to reliability in a qualitative sense as “dependability” or “consistency” (p. 288). They suggested utilizing strategies such as triangulation, peer reviewer, investigators position (researcher’s perspective), researcher’s journal, and an audit trail to strengthen the dependability or consistency of qualitative research. Triangulation and peer review also strengthened the credibility and were described in the previous section.

Thorough documentation of qualitative research was needed to provide dependability or as Dey (1993) stated “while we cannot expect other to replicate our study the best we can do is explain how we arrived at our results” (p. 251). The documentation of the study was attained through a researcher journal within an audit trail. Throughout the study a researcher journal was kept to document thoughts and decisions as they occurred. The use of entries provided a thorough documentation of the study’s methods including data collection, procedures, and timeline. The journal also served as a way to monitor any researcher bias and as an outlet to write about how sense was made of the data during data collection and analysis. The ability to keep a researcher journal contributed to the study’s audit trail.

An audit trail describes in detail how data were collected, how categories/themes were derived, and how decisions were made throughout the study (Merriam, 2002). To ensure dependability an audit trail was documented to demonstrate the data collection and

analysis processes throughout the study. Documentation of data analysis included interview transcriptions with notes in the margins, review of artifacts and field notes, determination of categories, and the development of themes. In addition, as the study evolved recent literature read was bound or saved electronically and kept as part of the audit trail. Changes or modifications to the research questions and methods were also documented in the audit trail and reflected upon in the researcher's journal. The research questions changed immediately following the study's proposal. Originally, only perceptions of implementation were questioned. Upon committee members' suggestions, two additional questions were added. Specifically, the question pertaining to influences prior to implementation and materials and practices. Additionally, two more interviews were conducted as previously mentioned.

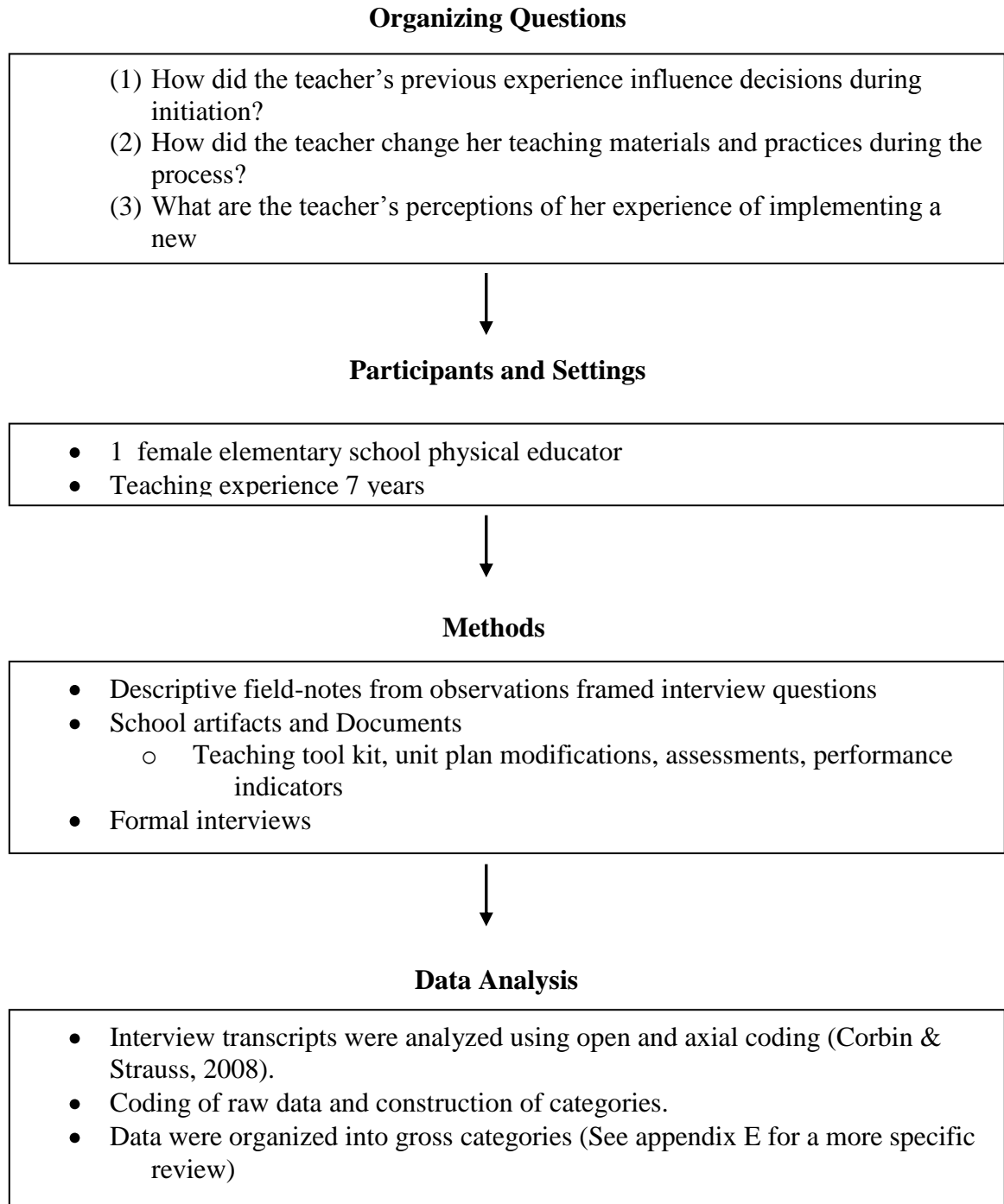
### *Transferability*

One method of viewing transferability in qualitative research is to focus on what Merriam (1998) called "reader or user generalizability" (p. 211). The general lies in the particular "what we learn in a particular situation we can transfer to similar situations subsequently encountered" (Merriam, 2002, p. 28). The researcher must provide enough detail of the studies context so that comparisons can be made (Merriam). Providing a rich and thick description of Stephanie's perceptions included the context studied enhanced transferability for the current study.

A purposeful sample was selected to understand this particular case, in-depth, not to find out what is generally true for all teachers during the process of curriculum implementation. It must be mentioned that there is no claim that findings from this study can be generalized or transferred to all teachers attempting to implement new curriculum.

The attempt tried to provide a thick description and tell Stephanie's story in detail. The reader must decide whether the results transfer (Trochim, 2001).

A summary of the study's design is represented in Figure 2. There were four main categories that framed the design. First, organizing questions are displayed. Second, the participant and her setting were examined. Third, methods for collecting data are summarized. Fourth, employed strategies for data analysis are described. Finally, the chapter concluded with an explanation of how the data are trustworthy.



*Figure 2.* Summary of Study Design

## CHAPTER IV

### RESULTS

The purpose of this study was to examine the perspectives and reflections of a physical education teacher after the first year of new curriculum implementation. Three research questions guided this examination. First, how did the teacher's previous experience influence decisions during initiation? Second, did the teacher change her teaching materials and practices during the process? Lastly, what are the teacher's perceptions of her experience in implementing a new curriculum?

Through data collection Stephanie's experiences provided meaningful and representative insights about the implementation process. However, in response to the purpose of the study and the research question the challenge was to represent Stephanie's experiences and reflections in an appropriate, logical, and informative format. Originally, when the data were analyzed and coded into themes and categories, stories developed that consisted of actions, events, and happenings (Polkinghorne, 1995), making the representation of the data complicated and multi-faceted. Therefore, after numerous rounds of analysis, multiple revisions and several discussions with the projects research advisors, the decision was made to report the findings in three unique but logically connected sections: context, implementation, and perceptions.

The first section describes Stephanie's *context* prior to her implementation of a new curriculum and is divided into two categories. Each category represents previous interactions and events that influenced the implementation process. The first category

describes how Stephanie's participation on the curriculum sub-council initiated by a physical education program (PEP) contributed to decisions made during the process. The second category describes the student teachers characteristics and previous interactions with Stephanie. The initial decision to first report the context in this manner stemmed from how the transcripts were interpreted by the researchers, as stories. Her reflection of the past was purely on memory and the retelling of the experiences influenced by her present perceptions (Sparkes, 2002).

After describing and discussing Stephanie's context prior to implementation, the second section, *implementation*, contains five stories of major events that significantly impacted her reflections in relation to changes and details the trials and tribulations experienced during implementation. The five stories provide insights into the implementation process which essentially developed the themes and categories.

Finally, her perceptions and reflections of implementation will be described in section three. The section reports the major themes and categories which, through analysis, best represented her perceptions and reflections of implementation. These sections were reported thematically which used words, statements, ideas, and phrase that were repeated throughout her reflections. Using her words directly was an appropriate way to retell her perceptions thematically, through codes and concepts (Corbin & Strauss, 2008).

### Context

Stephanie's story begins during her senior year in high school. Like many of her peers, she was contemplating what to study in college. After much deliberation Stephanie concluded that she would teach physical education. Throughout the decision-making

process her parents and high school counselors discouraged her pursuit of a career in education. Though they supported her endeavors, they lacked enthusiasm at the idea of Stephanie becoming a teacher. Nonetheless, Stephanie stood by her decision and began her studies as a physical education major.

Stephanie's sport background and physical activity interests consisted of gymnastics, dance, and fitness. Team sports had never really interested her and she had little skill in the areas of invasion, net-wall, and striking-fielding activities; however, she soon discovered that these activities were a primary emphasis of the physical education program. Her student performance declined steadily. In light of her inadequacies as a physical education student, she often questioned whether her lack of confidence stemmed from the program's team sport approach or her overall lack of enthusiasm in her studies. During this time, she knew she was merely going through the motions. While every class she completed placed her one step closer to the profession, Stephanie realized that she might not be excited about the prospect of reaching her initial goal. She continued despite her reservations, only to discover during her senior year that she had in fact made the right choice. Her undergraduate program's approach to teaching elementary physical education consisted of teaching the basic skills of sport, and also emphasized teaching dance, gymnastics, and fitness. Given Stephanie's background in these areas, this movement education approach aligned with her interests. Additionally, during her practicum opportunities Stephanie discovered that she greatly enjoyed working with elementary-aged students. Stephanie's excitement for teaching elementary physical education would later be confirmed during her student teaching experience.

Upon completion of her undergraduate teaching methods and content course work, Stephanie needed to complete a semester of student teaching to fulfill her graduate requirements. Student teaching spanned 16 weeks and consisted of two placements, both eight weeks in length. Eight weeks would be spent in an elementary school (K-5 grades), as well as eight weeks in a secondary school (6-12 grades). Placements included working with a cooperating teacher at each school site and one university supervisor. The most influential aspect of Stephanie's student teaching experience was working with a high energy, experienced, cooperating teacher named Bridget at her elementary school placement.

Stephanie gained a wealth of knowledge from Bridget during her placement. Bridget emphasized teaching basic movement skills, gymnastics, dance, and fitness components to the elementary students at Shasta Elementary. Stephanie observed and attempted to model Bridget's example. Bridget's knowledge, enthusiasm, ability to work with students, positive attitude, and professional disposition greatly motivated Stephanie to become a good teacher. Stephanie recognized that it would take years to become as effective as Bridget, but her mentoring provided motivation for Stephanie to continue into teaching physical education.

When Stephanie completed the requirements for teacher licensure, Shasta informed her that Bridget was transferring to another school and asked Stephanie to apply for the job. Taking over at Shasta was more than she could have wished for. After the formal interview process she was offered and accepted the position. While thrilled, Stephanie felt a nervous anticipation, knowing that she had big shoes to fill. Coupled with

living in the shadow of Bridget were the anxieties that most beginning teachers experience in their first years of teaching.

The first year held for Stephanie a set of high expectations from her principal, Mitchell, a former physical educator. Unforeseen time-killers included Stephanie's role in various committees and directing the intramural program and school safety patrols. She understood the need to write daily/ weekly lesson plans, but did not realize that Mitchell would collect them each Monday for approval. Furthermore, Mitchell observed Stephanie weekly and demanded to know what the students were learning. Stephanie's initial perception of these expectations was positive. She understood that physical educators were not often observed and supported by their principals, so she was grateful for his interest in the program. However, the reality was demanding and pressure-laden. The demand stemmed from insufficient information, planning resources, and materials to sustain her for an entire school year. This was the first time Stephanie needed to plan continuously for longer than an eight-week time frame.

Stephanie's first year of teaching was riddled with frustration from a lack of resources, which landed her in survival mode. Physical education websites, which became her constant source for lesson plan and curriculum ideas, monopolized her time. In addition, she was endlessly collecting resources and calling personal mentors for activity and lesson ideas. She felt frustrated that she was still relying on pre-service training and Bridget for lesson ideas. Her first year teaching was a stressful blur but toward the end she had gathered and created enough information to begin her second year successfully.

While she expected the second year to provide some stability, it was just as challenging as the first year. With one year of experience, Mitchell demanded more of Stephanie and expected her to act as a seasoned veteran. For example, prior to Mitchell's weekly visits, Stephanie asked her students, "If the principal comes in and asks you what you are learning, what are you going to tell him?" Overwhelmed, she continued to question her career choice through the end of her second year teaching. The difficulties continued to stem from a lack of planning material for teaching and the pressure to meet Mitchell's expectations.

During her second year teaching, Stephanie questioned if what she was teaching made a difference. She had enough information to plan most units effectively but did not understand how the lessons fit into her overall curricular approach. Each unit was planned in isolation and she failed to see the connections. She had no yearly plan and tried desperately to make the connection but did not have enough curricular knowledge or confidence in her ability to develop a curriculum. Though she struggled with curricular sequencing, at the completion of her second year Stephanie had a good understanding of procedural aspects such as management and classroom routines.

During Stephanie's third and fourth years teaching she knew exactly what Mitchell expected of her and their professional relationship continued to grow. His expectations remained high because he wanted the students to experience a positive physical education program. To support the physical education program and Stephanie's growth, Mitchell provided funding to attend a number of state conferences. Although she sometimes thought of Mitchell as overbearing, Stephanie realized that having his support was invaluable for her development at the beginning of her career. By the end of

four high-pressured years her classroom routine and protocols were organized and she had developed a true understanding that to become an effective teacher she needed to set high expectations. The summer directly following her fourth year of teaching, Mitchell transferred to another elementary school in the district. During the transition there were additional turnovers with veteran teachers transferring to other schools, including some who followed Mitchell. The new principal, Rileigh, had a number of colleagues follow her to Shasta as well. Rileigh fully supported Shasta's physical education program and therefore supported Stephanie's efforts.

During years five and six, Stephanie continued to receive support from Rileigh while attempting to improve or build upon her teaching strategies. She sought more resources to inform her teaching. More specifically, Stephanie's focused effort changed from just planning individual units to seeking professional development to assist her with curricular sequencing. The district, with respect to professional development, provided one-day workshops introducing new pedagogical concepts. Concepts included, "brain gym" and "team building". She believed these ideas would have been applicable if they had been revisited or continuous and failed to see their relevance. During both years, there was a huge shift when the district received a Physical Education Program grant and a group of teachers in collaboration with the local university slowly started to change the approach to professional development.

#### *PEP Grant*

In fall of 2005 the district received a three-year PEP grant for elementary physical education. The curriculum development project stemmed from one objective of the grant. Several teachers including Stephanie chose, with support from the university

faculty on the PEP coordinating committee, to develop an elementary physical education curriculum toolkit. Initially, Stephanie wanted to be a part of the curriculum sub-council but thought she was too inexperienced, too disorganized, and simply did not understand curriculum sequencing after five years of teaching. However, several alternative factors contributed to Stephanie's desire to be a part of the curriculum sub-council. She had passion, energy, and wanted a document to guide her curricular decisions and therefore knew that if the district physical educators were going to develop a curriculum guide she wanted to contribute.

Stephanie understood the idea of standards-based curriculum and could relate to the frustration of limited guidance from the district and a lack of resources. She also trusted the curriculum facilitators from the university. She was excited to collaborate with them and was impressed by their credentials and knowledge. However, she was more impressed by their adamant refusal to write the document for the teachers. The facilitators' approach was constructive, due to the teachers' superior understanding of the students in the district and their programs.

At the completion of two full years the curriculum sub-council's efforts resulted in a curriculum toolkit (Appendix A) for the district's elementary physical education specialists to utilize. The mission of the toolkit states, "every student in the school district will improve their physical skills and fitness levels by participating in quality, developmentally appropriate physical education programs designed specifically to enhance the cognitive, psychomotor and affective domains" (pg II). The mission of the toolkit is framed by two sets of standards – National Standards for Physical Education (NASPE, 2004) and the state Model Content Standards for Physical Education (Colorado

Department of Education, 1997). Benchmarks for grade levels K-2 and 3-5 accompany each of the six national standards. Specifically, the national standards and benchmarks were addressed by curriculum sub-councils through the creation of performance indicators for each grade level. Overall, 173 performance indicators were developed to address national standards and benchmarks across grade levels. The purpose of these performance indicators was to provide the elementary physical education specialist in the district specific objectives when planning lessons and curriculums.

Stephanie was very proud of the completed document, but realized that it was still a work-in-progress for both the development and implementation perspectives. She was excited and scared to implement the document she helped develop. As her seventh year of teaching began the district was to begin implementation of the curriculum. Moreover, during this year Stephanie experienced some major changes. She was not only planning on implementing the new curriculum she helped develop, but had also agreed to mentor two pre-service teachers named Eric and Steve.

### *Student Teachers*

Becoming a cooperating teacher was a decision that did not come easily to Stephanie. In fact, she had been approached by university faculty on several occasions but declined the invitations because she did not believe she was capable to mentor. She agreed to supervise student teachers with a couple of conditions. First, she would be able to hand pick the student teachers. Second, she could choose the order in which their placement was completed. Both accommodations were made and Eric and Steve began their placements in the fall of her seventh year, for a total of eight weeks each. Stephanie selected the two because of their backgrounds, their ability to demonstrate working with

students, and recommendations from the university faculty. Eric taught at Shasta Elementary for eight weeks beginning in August 2008 and Steve followed for the second half of the term. I was their university supervisor.

Eric was a 22 year-old bilingual Hispanic male completing his final semester of college. He was small in stature but had a “larger than life” personality. Eric’s professional disposition was second to none and he was a student who PETE faculty members could count on to do exceptional work throughout his student career. Eric could often be found volunteering his time assisting in after-school programs and coaching high school basketball. He did not donate his time to just pad his resume or gain recognition; he was truly passionate about working with youth.

Steve was a 23 year-old African American male completing his final semester of college. Like Eric, Steve went above and beyond in all aspects as a student and often volunteered his time assisting in after-school programs, in addition to his scholarship basketball participation at the university. It was apparent that Steve and Eric had developed a professional relationship throughout their undergraduate experience. Their relationship extended beyond the classroom. They spent time together as partners in their elementary practicum experience, on the golf course, and just hanging out. Their friendship, passion, and knowledge for elementary physical education made Stephanie’s selection easy.

Eric and Steve had observed and worked with Stephanie on multiple occasions prior to student teaching. They observed her teaching during an elementary physical education course and often during non-required times. They also worked with her and her students during the practicum experience of an elementary physical education methods

class. In addition, prior to student teaching they helped implement an after-school program at Shasta. Throughout these experiences Eric, Steve, and Stephanie developed a professional relationship which consisted of discussing lesson plans, classroom management, assessment ideas, and instructional strategies. Stephanie recognized that they were knowledgeable about elementary content and pedagogical strategies. Her story of implementation begins here.

### Implementation

The implementation section is divided into five significant events, which occurred during Stephanie's first year of implementing the new district curriculum. These events included: a meeting prior to school starting, the first days of implementation, student teacher units, significant units, and putting it all together.

#### *The Meeting*

On a bright, sunny July morning, three weeks before students were to arrive on campus, Stephanie and Eric met just outside Shasta Elementary for a meeting to kick off the school year. They were both beaming with energy as they walked towards the gymnasium entrance. Their arms were loaded with stacks of books and folders filled with planning materials. They made their way straight to Stephanie's office and quickly realized that the tiny room would be inadequate workspace. Instead they proceeded to set up shop on the carpeted gymnasium floor in front of a white board, laying out all the materials in piles on the floor.

Once organized Stephanie and Eric engaged in a brief conversation addressing what they had done that summer along with relevant current events. As they decided to get down to strictly business, Stephanie, serious and professional, designed an

extravagant outline for the meeting. She could never completely withdraw from her bubbly and sometimes dramatic personality. However, she used a serious and professional approach as an indirect way of informing Eric that she was not taking her role as a mentor lightly. The outline included and displayed Stephanie's expectations for Eric's eight-week placement, a brief explanation of the toolkit, ideas for units to be taught, and planning the first few days of school. The teaching materials scattered in front of them provided examples for the outlined topics to be discussed.

Stephanie made it very clear that she expected Eric to arrive prepared and on time consistently. Accordingly, she wanted him to e-mail his lesson plans to her each week by Sunday afternoon, record detailed reflections daily in a journal, and inject his own ideas into the process. Stephanie knew Eric well enough to know that punctuality and preparedness would not be an issue, however, it needed to be mentioned. Stephanie required electronic copies of his lesson plans in order to hold him accountable.

She explained to Eric that the daily journal (Appendix I) was interactive and must include but not be limited to: suggestions for changing the lesson, ideas for new lessons, and frustrations and successes he encountered throughout his experience. Stephanie excitedly showed Eric her student teaching journal that Bridget had demanded she keep. The journal was not only tattered with creased pages but also included written dialog between her and Bridget and helped demonstrate to Eric the importance of reflection. The journal had been an influential starting point to her career as a teacher and provided Eric with an insight into her thrilling learning process which began seven years ago.

Stephanie not only encouraged but expected Eric to provide ideas and take ownership of

his own experience. She was well aware of Eric's knowledge and enthusiasm and wanted him to provide input whenever possible. She elicited his ideas during their meeting.

Prior knowledge of Eric's ability provided Stephanie with the confidence to let him make some decisions. Although she trusted him she had some parameters to guide his implementation. She diligently sketched schedules of when he would take over the classes and composed some dates when his unit would occur. Eric rightfully understood and therefore proposed teaching a unit of striking with paddles to all grade levels. Not all of the specifics were outlined, but he briefly explained the length of the unit, potential lesson objectives, equipment needed, and possible assessment ideas.

Eric proposed a classroom management protocol document to help Stephanie implement the first few weeks of school. The management tool was coined the "five finger contract". The "five finger contract" insured for students would remember classroom rules and respect others. As a kid-friendly reminder, Eric produced a foam sport novelty hand with each finger and thumb representing behaviors to remember (Appendix G). Stephanie was excited that Eric wanted to attempt to implement this because she had seen him use it successfully during the afterschool program at Shasta in the spring.

Stephanie happily acknowledged that the striking with paddles unit and the "five finger contract" could be implemented barring the objectives aligned with the toolkit's performance indicators. Eric had not taken into consideration the toolkit material and was interested to find out whether or not his potential objectives would align. His prior knowledge of the toolkit was limited and he was excited to have Stephanie explain it to him.

Stephanie could spend endless days going on about the toolkit. However, during their meeting Stephanie briefly explained to Eric that as a result of the toolkit her program would look different than what he had previously observed. Specifically, Stephanie highlighted the difference between her previous practices, multi-activity model, and the foundation of the new tool kit, the skill theme model. Additionally, Stephanie expressed that she wanted to have students work more in small groups instead of the traditional sideline games as she had previously employed. Upon the close of the four hour meeting, Stephanie and Eric achieved an understanding of what they had facilitated and wanted to accomplish during the first week of the fast-approaching school year.

#### *First Days of Implementation*

The first few days of the new implementation proved repulsive and significant for Stephanie in a number of ways. The start of the implementation year was by far one of the worst first days of school in Stephanie's short tenure. Stephanie and Eric met during the summer months in an attempt to predict possible student scenarios. The first day unfolded in total disaster and sent them on a staggering quest to discover why. A majority of the problems stemmed from management. After failed attempts at discipline, Stephanie called Principal Rileigh to manage an out of control student on the first day. The call was made after Stephanie and Eric had tried each and every management technique they collectively knew. The student resisted direction and finally Rileigh removed him from the environment. Stephanie originally planned the first day as an example for Eric of what she expected from the students. It should have served as a reference model to be duplicated throughout the remainder of the week. However, at the

end of the draining first day Stephanie and Eric reflected on the negative experience and acknowledged their poor fortune. Surely, the second day would provide a better example of how to effectively start the school year. Unfortunately, day two challenged their patience to a greater degree. Just when they thought it could not get worse they had to call an ambulance to aid an injured student. Though circumstances were out of Eric and Stephanie's control, they still heavily compounded an already rocky start. Stress levels remained in acceleration mode.

Each day during the first week Stephanie went home exhausted and upset. She had been so excited for Eric's arrival and orientation into the world of teaching; it was not until the more relaxing second week that he could see any positive correlation. Classroom protocols and establishing a positive learning environment had become the focus of week one. The disastrous, exhausting week required them to continue introducing classroom management routines and protocols during week two. Establishing and extending a learning environment through the second week of the school year is not uncommon; however, Stephanie was leaving Eric with a disconnected substitute teacher, on Thursday of the second week, to get married. Stephanie and Eric discussed her departure previously, but they had also planned for the first week of school to run smoothly. Stephanie's distress did not stem from her upcoming wedding in one week; she just hoped Eric could enjoy a positive experience prior to leaving him with a substitute.

At the beginning of the second week, Stephanie and Eric really struggled with a rowdy second grade class and they called Rileigh to the rescue yet again. Stephanie could not seem to impress upon Eric that this was uncommon and there was usually a

“honeymoon phase,” meaning that students are on their best behavior for the first couple of weeks, especially primary grades (K-2). Adversely, this year, the kids earned punishment in the form of timeout on carpet squares. Finally, on Tuesday of the second week students started to show understanding of classroom procedures and extended cooperation with Stephanie and Eric. Stephanie would feel less anxious and more relieved about leaving Eric as long as Wednesday was similar. The day ran smoothly and Eric finally had a positive model for use during Stephanie’s absence.

A successful lesson on Tuesday of the second week included students entering the gym and immediately participating in an activity which used different locomotor skills in the general space. Students gladly skipped, galloped, slid, and ran to the beat of a drum while trying not to collide or bump into one another. Stephanie would beat the drum rhythmically while students moved engagingly and then abruptly multiple times to signal students to stop and listen to directions explaining their first task. Stephanie then asked students to review and discuss with a partner the five finger contract which had been introduced during the first week. Students partook in detailed discussions of each component of the contract with their peers. Usually at least one student each class period approached Stephanie and needed to be reminded of a concept. Stephanie then pointed to each finger on her hand while students would eagerly shout answers out loud. Next, Stephanie explained the “PE Points” which each class could accumulate for good behavior and would help earn game time, after 10 weeks. Students always had several questions about “PE Points” because they wanted to earn game time. Stephanie responded to a few of the students questions and then moved on to supplying the introduction of the next low-organized activity.

Each activity had a similar objective which was to review classroom rules and cooperate with classmates. A typical low-organized activity was known as “Frogs and Ants”. Stephanie would assign students with the role of either “Frog” or “Ant” and the objective of the activity was for the Ants to cooperate with their fellow Ants and carry them to safety. The unluckily tagged or “Injured Ants” were carried to safety by four of their supportive peers. Stephanie continuously reminded students about the definite rule that at least four ants must carry an injured ant. As she watched, she gave praise to students who were collaborating well and alternately pointed out resistant students who were not working with their peers or those not following directions. Each activity lasted approximately five minutes and then the next would be introduced. Stephanie instructed students to gather as a class in a team huddle while she explained the next activity. All of Wednesday’s lessons in the second week ran smoothly and Stephanie was less concerned about leaving Eric. However, she did call him a half dozen times over the weekend to request he continue diligently journaling while she was away so they would have stimulated discussion points when she came back.

Stephanie and Eric agreed that the upcoming weeks could only get better and were extremely excited to have a regular schedule for the remainder of his stay. They were ready to start implementing content other than management and classroom protocols and they were both excited to incorporate the skills proposed in the curriculum toolkit and described through the performance indicators. For the next two weeks Stephanie modeled a throwing and catching lesson she had taught in the past with the understanding that it would dually match performance indicators. Stephanie and Eric planned the lessons together but Stephanie led the instruction, while Eric assisted. At the

completion of two weeks it was time for Eric to take over all of the planning and instruction with Stephanie's assistance.

### *Student Teacher's Units*

Student teachers typically choose a content or unit to teach during their placement with the cooperating teacher's permission. The unit is then entirely implemented by the student teacher from start to end. Eric selected and taught striking with paddles for three weeks during his elementary placement with Stephanie. The precise planning process took place well before striking was taught; in fact this was one of the units Eric and Stephanie had collaborated about during their marathon planning session over the summer. Eric originally planned the unit using the toolkit as the framework for writing lesson and unit objectives. Stephanie willingly helped him brainstorm what skills should be introduced and how the unit would progress. Eric developed and implemented a developmental analysis of content which described how the unit progressed. He also planned and incorporated all of the essential assessments for the unit. The end result of the unit revealed Eric's successful completion.

The striking unit was led to completion and Eric remained at Shasta for one more week. The final week of his stay in mid-October included wrapping up the specialized striking unit and helping Stephanie prepare for Steve's imminent arrival. The school district recommends all elementary schools conduct fitness testing in the fall so Stephanie and Eric planned to overlap fitness testing with Eric's departure and Steve's arrival. All three agreed that the transition during fitness testing would be appropriate on many levels.

First, Stephanie was very comfortable with the routine and had conducted fitness testing each of her six years teaching. Second, Steve thoroughly understood the protocols of the fitness testing based on his experience during his pre-service training. Third, the nature of fitness testing allowed vigorous interaction with all students and an opportunity for Steve to get to know them. Finally, the fitness testing unit provided additional time for Stephanie and Steve to plan a sturdy schedule for his stay and brainstorm fool-proof unit ideas.

Unlike with Eric, Stephanie and Steve did not have the luxury of meeting for an extensive time prior to his placement at Shasta. Fortunately, Steve had already worked with Stephanie and was in continuous communication with Eric during his time at Shasta so he started his elementary placement with knowledge of Shasta's culture. Additionally, Steve observed Eric teach at Shasta during the striking unit a few weeks prior to his arrival to get more familiar with the school and students with whom he would be working. Conclusively, Steve chose to instruct a unit on jumping and landing, which he felt would push his limits during the elementary experience.

After two fast-paced weeks of following Stephanie's lead during fitness testing, Steve planned to teach jumping and landing for approximately three weeks. The outside-the-box content was not only challenging for Steve but surprisingly for Stephanie as well. Steve had just left a high school placement where he was very comfortable. Not only did he enjoy working with high school-aged students, he also clearly understood secondary content. Steve was a very skilled athlete and had a dominant command of content that required all students to manipulate equipment in a sport-like setting. He was now attempting to teach a non-manipulative skill to less mature elementary-aged students.

Stephanie had a true sense of teaching jumping and landing to the primary grade (K-2) but had less experience teaching jumping and landing to intermediate grade (3-5) students. They planned the unit cohesively and were confident when planning the first week, or introductory part. However, extending the content was a bit more challenging especially for the older grades. They eventually asked me to help plan and model a jumping and landing lesson for fourth and fifth graders. I agreed and we subsequently planned the lessons.

By November I had observed Stephanie's classes multiple times and had a good sense of what her students could do. I extended the planning process from where their introductory concluded. We challenged the fourth and fifth graders to jump for distance and land softly. The environment was set up for students to jump over marked tape-spots around the gymnasium and to challenge each other in peer groups. Jumping games for time and distance were used to elicit the response of creating strong force during taking off and then absorbing the force on the landing. The lesson provided an example for Steve and Stephanie to work with and subsequently reminded them of simple concepts that they had forgotten from the past. Steve extended the unit, and by the end had students easily creating jumping routines while he assessed and planned with Stephanie. The jumping and landing unit turned out to be a huge success.

### *Significant Units*

Two significant units during implementation included Bosu-fitness and yoga. Each unit was significant because Stephanie planned, assessed, and reflected daily to make decisions similar to when the student teachers were there. These particular units

were nerve-racking because she had never taught them. The first significant unit Stephanie launched and taught upon the student teachers' departure was Bosu-fitness.

The Bosu-fitness used Bosu-balls—half-dome physio-balls specially developed for strengthening abdominal, lower back, and leg muscles through an integrated series of aerobic-type movement. The objective of the particular unit stemmed from standard four of the toolkit. Specifically, Stephanie targeted performance indicators that incorporated and pinpointed moderate to vigorous physical activity (MVPA) or FITT principle as the unit objectives. She started with performance indicator 5.4.3 (Appendix A) and planned backwards.

The novelty of Bosu-fitness was the use of new, specialized equipment and the students' reaction to the content. The equipment was purchased with PEP grant funds two years prior and Stephanie had not incorporated them into her curriculum prior to implementation. The students were joyful and adventurous when trying out the new equipment. Stephanie approached the unit with same sense of ambition the equipment created. Since the Bosu-fitness content was unfamiliar, Stephanie sat down and viewed an instructional DVD to familiarize herself with the movement progression and to construct for the first time a developmental analysis of content task sheet Stephanie had also borrowed a Pilates video targeted especially for kids to use for the last five minutes of each class session to cool down the children and provide more tasks to meet the unit objectives. While viewing each video, Stephanie jotted down notes pertaining to the technique and explored ideas of how to simplify movements so that they were appropriate for her students. When Stephanie was watching the videos she kept three key elements in mind – extension, refinement, and application tasks. She noted the

movement cues and developed tasks. Movement cues and tasks were then typed and documented into the development analysis of content.

Initially, the student excitement was exclusively in response to the new equipment. However, as the unit progressed students continued to be enthusiastic and engaged. The lesson progressions included students jumping, balancing, and running in place on the Bosu-balls to the sound of aerobics-style music. Stephanie modeled every movement for each class and was excited to witness the students' enthused response. There was an enormous amount of energy as little bodies continued to move at very fast rates for 40 minutes each lesson. By the end of each lesson students were typically dripping with sweat and visibly upset the class period was nearing conclusion. All grade levels seemed to enjoy the Bosu-unit and were sad to see it end. Upon the completion of the Bosu-fitness unit Stephanie continued the fitness theme and decided to implement yoga for the first time.

Like the Bosu-fitness unit, the yoga unit objectives were framed by the performance indicators from the toolkit. Specific grade level unit objectives included performance indicators using FITT principals, flexibility, and weight bearing concepts of fitness. When generating a plan, Stephanie relied fully on personal experience and accumulated content knowledge to formulate the developmental analysis of content.

Throughout the school year Stephanie attended an enjoyable yoga class at a local recreation center and implemented movements, poses, and techniques learned during that experience. Yoga provided such personal growth in her life during the implementation year that she wanted her students to experience mutual benefits. The yoga unit was a little harder to plan because she depended on personal experience rather

than relating directly from a video. However, the students enjoyed the unit so much that they often provided suggestions as to what types of stretches and poses they wanted to attempt. Often, she implemented some of their thoughtful ideas.

Lesson activities included a brief five-minute fitness or instant activity which usually consisted of students traveling throughout the gymnasium while skipping, galloping, sliding, and running. Stephanie then provided students with the day's lesson objective. For most of the yoga unit the objective explanation included the cultivating importance of linking flexibility to one's health and well-being. The empowering benefits explained to students included: helping with balance, improving posture, a sense of relaxation, muscular strength, and aid in the ability to focus. She explained that participating in the poses would stretch the lower back and stomach, and help strengthen abdominal and leg muscles. Next, students performed the poses in order through a sun salutation, utilizing the cat/cow pose, downward facing dog, push-up, cobra push-up, dog, and child's pose. Stephanie provided students with feedback and enforced accurate technique throughout the yoga unit.

### *Putting It All Together*

Stephanie decided to teach gymnastics, content she had not taught in an overwhelming three years. Stephanie had started planning the gymnastics unit the year before implementation and sought help from her university faculty mentor, Sharon. She had an enlightening conversation with Sharon the previous spring and explained to her that though she was a former gymnastics coach, her current approach to teaching gymnastics to elementary students was not working and she needed help.

Three years prior to implementation Stephanie realized that she was teaching gymnastics in a competitive club sense, or like a coach. She was lifting kids on to high, thin balance beams or introducing them to difficult tumbling passes in a traditional way of teaching gymnastics. Stephanie's relatable experience as both an athlete and coach of gymnastics enabled her to envision a different approach to teaching gymnastics. She was teaching as if in a competitive environment, and therefore needed Sharon's support to change her approach to educational gymnastics.

The gymnastics unit was taught over six lessons using three different lesson themes. The lesson themes included mastering the rolling, transferring weight, and rhythmic patterns. First, the rolling progression introduced how to roll in different directions: backwards, forwards, and sideways. The students had to change the speed of the roll followed by rolling from different positions, starting low or high, and balancing on one foot, two feet, or three body parts. Then Stephanie demonstrated rolling sideways (shoulder roll) and rolling forward in a straddle. At the completion of the energetic rolling series students would combine rolling with other skills such as jumping and landing or traveling. The combination of skills transitioned well into teaching transferring weight.

Second, the next two lessons covered transferring weight from feet to back and feet to hands. To transfer weight from feet to back students would be instructed to squat down on their feet, round their backs and roll while trying to return to their feet Stephanie challenged students by having them try it from a standing position. Next, Stephanie had students attempt transferring weight from feet to hands. They focused and then balanced on their hands at different levels while attempting to hold the hand-stand position for the

duration of a few seconds. Stephanie challenged students by instructing them to hold the position longer, their feet higher, or do a quarter turn, resembling a half cartwheel. At the completion of the transferring weight lessons Stephanie introduced rhythmic movements.

Third, rhythmic movements included the introduction to streamers and rhythm sticks. Stephanie used these lessons to revisit movement concepts such as relationships, mirroring, matching, levels, and directions. The rhythmic movement lessons also strongly emphasized the combination of rolling and transferring weight to produce a gymnastics routine. Stephanie provided the students with certain criteria that must be included in their routines. Students were assessed and judged on their routines and whether they did or did not meet the general criteria. Stephanie developed student assessments for the first time during implementation.

The gymnastics unit was essentially the only unit for which everything came together in planning, assessment, and task analysis for Stephanie. Gymnastics was the unit that caused her to invest in the change. In fact, toward the end of the school year, the district elementary physical educators started meeting monthly as a professional learning community (PLC). Stephanie was so proud of the gymnastics unit that at the first couple of PLC meetings she shared a video of her teaching gymnastics along with example lesson plans and assessments.

### Stephanie's Perceptions

The purpose of this study was to examine the reflections of a physical education teacher after the first year of new curriculum implementation. Data analysis resulted in the identification of three themes influencing the implementation process based on Stephanie's perceptions. The three themes were aspects of change, support, and students'

response to the implementation. Each theme contains multiple categories and sub-categories. A majority of the categories were labeled using in-vivo codes or actual words of the participant to describe the theme (Corbin & Strauss, 2008). First, the theme, aspects of change, is subdivided into six categories, instructional approach, not planning in the shower, assessed like crazy, revisiting reflection, and curriculum knowledge. Support the second theme is best represented by four categories, student teachers, talking shop, significant others as forms of support, and he did not do my job. In order to best represent Stephanie's perceptions and reflections, data analysis revealed that the category, student teachers was more complex than a single level of interpretation, and was therefore discussed through three sub-categories, planning, assessment, and reflection. The final theme, students' response is supported by two categories, behavior and Oh you need a "Flat Paddle".

### *Aspects of Change*

Stephanie approached the implementation process with the constant desire to learn more, likewise, she had previously dedicated time and energy during the curriculum toolkit development to increase knowledge. She demonstrated this desire when she agreed to supervise student teachers, hoping that they could teach her different ways to deliver lessons. Stephanie was open to the idea of learning from undergraduate students:

The student teachers, I felt like there was a lot they could teach me. They knew that but at the same time I think I started getting a little bit of confidence. I was like, I am still writing curriculum right now...My wealth of knowledge is based on my experience and in different situations I could provide feedback. (Int. #7 P. 7 lines 240-245)

Initially, Stephanie refused to work with student teachers because she felt unprepared.

However, throughout the placement she discovered a sense of self-efficacy. She

commented, “The role of mentor made me realize that I am a good teacher and there were some things I could teach these two” (Int. #8 P. 7 Line 255). Her confidence and desire for knowledge pushed her in the direction of change.

Aspects of change are supported by three sub-categories: change in instructional approach, teaching skills, and a perceived understanding of curriculum knowledge. First, the change in instruction was a shift from a multi-activity-themed to a skill-themed approach. Second, teaching strategies were different in the ways of planning, assessment, and reflection. Third, Stephanie’s perceived understanding of curriculum knowledge addressed her ability to change content as she navigated the process.

#### *Instructional Approach*

Stephanie’s instructional approach shifted for two reasons: the use of the curriculum toolkit and *Children Moving* as an instructional guide. She considered the application of the curriculum toolkit a given based on the amount of time and effort she committed to develop it. The utilization of *Children Moving* aligned with the performance indicators which made it easy to adopt.

Adopting resource materials was easy for Stephanie. She had always wanted a document to help focus her teaching and provide her program with accountability and instructional guidance, and the curriculum toolkit seemed to be her answer. During its development, Stephanie and the rest of the curriculum sub-council used *Children Moving* to help them write the performance indicators included in the toolkit. According to Stephanie, the book served as an instructional guide during implementation because it went hand in hand with how the performance indicators were written. Adopting the instructional guide to aid the toolkit development made sense.

Prior to implementation, Stephanie's instructional approach was sport-orientated based on her training. She wrote, instructed, and understood objectives with a sport focus. Stephanie's typical unit was planned and instructed by teaching sports, i.e. basketball. She stated:

I was still writing and teaching to objectives but I was still in more of the sports mode. I was thinking: basketball, hockey, volleyball, rather than dribbling, striking and volleying like I did this year. So, I was thinking broader in the sports sense.

Stephanie provided an example of a soccer unit sequence taught a year prior to implementation, "It (the unit) would be taught in three lessons. The first two lessons would include basic soccer skills-- passing and dribbling, and the third lesson would be the game." This approach typically included a large-sided, low-organized game (end-zone soccer) dividing the class into two or three teams. She mentioned that "students enjoyed end-zone soccer and would sometimes play it at recess," acknowledging that she gauged lesson effectiveness with level of enjoyment as opposed to a specific learning objective.

Stephanie recalled the lessons taught prior to implementation containing many tasks as well as the game. She realized that after six years of teaching she had acquired a wealth of activities and would combine them to fit whichever sport unit she was teaching. She called herself "the Task Master." However, during implementation her instructional approach shifted from a multi-activity emphasis to a more skill-based instructional approach. She said:

That is the essence of the toolkit. It is skills: striking skills, dribbling skills, and throwing skills. I think that the biggest change for me was from sport themes to skill themes. That has been the biggest change when writing the toolkit. It (skill themes) was the most familiar. (Int. 4 P. 1 Lines 8-10)

She still provided the students with multiple tasks because she felt they had more “rhyme and reason when trying to meet the objective”. Stephanie believed that thinking of tasks in this manner “drove her planning and instruction,” which focused her on a specific instructional approach throughout the year. The implementation year, the toolkit, and *Children Moving* were incentives and forms of accountability. Therefore she asked herself each unit, “have I taught this (content) before and how do I teach it now?” These questions enabled her to instruct and write specific outcomes and objectives. Instead of teaching soccer, hockey, and volleyball she taught dribbling, striking, and volleying.

Guidance from the resources assisted Stephanie’s instructional decisions. However, there were occasions when instructional approach challenged her belief system. Change was difficult after teaching certain content the same way for multiple years. Stephanie provided an example of how she struggled with the instructional approach:

You cannot just hammer drills. It is not the coaching method, and even if they cannot get the skill right away you still need to put them into a game situation. Obviously it is written in our curriculum that students need to be successful in small-sided games. I do not think that kids just need skills taught in isolation, but they do need games. My thinking is different in that I think to myself, why do I have to teach this skill, what is the objective, and what do I want students to learn?

Although Stephanie struggled with areas of the approach she also thought most aspects were positive. It provided her with appropriate means to address her audience.

Stephanie became more aware of providing specific directions to students. She was conscious of rephrasing terms to make them more appropriate. Providing specific directions was not a totally new concept, but during implementation her guide had been more specific. Stephanie explained:

I am more aware of giving good directions. My directions are now more specific and kid-friendly. For example, I said, we're going to strike with a flat palm. The cues were always there but now I consciously think about them. (Int. #10 p. 1 Lines 9-13)

Stephanie perceived that the learning cues, or “refinement tasks,” provided by *Children Moving* benefited students. Additionally, the use of extension tasks influenced how she approached instruction. Making the movements more difficult or easier impacted the instructional approach. Stephanie reflected on an example during a striking with hands unit taught during the year. She asked the students to “strike with a flat palm” and they “got it”. She perceived this success as a direct response to the shift in instructional change. She concluded:

Extending and refining the skills is the biggest change. I think that I was doing it (extending and refining skills) before just not as consciously as I am now. Those efforts have really helped the students understand skills. (Int. #4 P. 8 Lines 308-316)

Stephanie used the instructional approach to provide students clarity. Specifically, the approach benefited the less-skilled student.

Stephanie’s understanding of the instructional approach changed drastically during the implementation process. The shift stemmed from the resources utilized during the process, and other factors influenced Stephanie’s knowledge-base during implementation. Her instructional approach influenced her delivery of content as a direct result of how she changed her planning, assessment, and reflection throughout implementation.

### *Teaching Skills*

Throughout the implementation process Stephanie changed her approaches to planning, assessment, and reflection. First, planning was more organized and

specifically written to meet the standard. Second, assessment was treated as a form of accountability and teacher evaluation. Third, reflection was heavily influenced by the student teachers' presence but continued upon their departure.

*Not planning in the shower.* Planning had always been an integral part of Stephanie's teaching mainly because of the expectations of her former principal, Mitchell, and the preparedness she required of herself. Yet, during the implementation year her planning changed and according to Stephanie, she did not "plan more, I just planned differently" (Int. #9 P. 2 Line 44). Even though the student teachers influenced Stephanie's planning, having a guide to inform her decisions during the planning process also helped with organization. She reflected, "Last spring I would just write my little bullets in a plan book. It was not bad but now... I am a little more specific because of the toolkit." (Int. #5 p. 1 Line 5-6)

Stephanie's planning was more organized and she paid more attention to detail. The process of detailed planning stemmed from the toolkit's performance indicators as a guide and her utilization of a developmental analysis of content chart (DAC). Her teaching experience initially provided guidance in developing the DAC but the implementation process helped with progression. She described:

Rather than just writing a bunch of random or different activities I now look at it as a unit plan and I brainstorm everything I should be covering during that unit. I may still write up the activities...but now I am putting down different skills in a different form. It (toolkit) has definitely driven my planning, and helped me stay focused. (Int. 10 P. 10 Lines 429-434)

Stephanie mentioned always having "an objective" and the toolkit was used to frame unit and lesson objectives when she was planning. The toolkit objectives aligned with the national standards and served as performance indicators for each grade level and

standard. She used the toolkit as a guide throughout implementation and especially upon the departure of the student teachers. She recalled:

The indicators are always running through my mind. I am thinking back to the document probably more so...definitely more than I did in the past, when writing it. I am thinking about it and revisiting so that I know exactly what my students are doing and how they are meeting the indicator. I think that it has really prompted my planning and teaching style and what kids need to know and learn by the end of their grade level. (Int. #3 P.4 Lines 138-144)

Additionally, on multiple occasions during the spring term of implementation she quizzed herself, the students, and me on specific lesson objectives. Then she would proceed to point at the whiteboard for a reminder.

During the “year of change,” as she referred to the implementation process, content that had not been taught in the past monopolized Stephanie’s time. She tended to exert more effort when it came to planning those units, which in turn prepared her even more. She said:

I was more planned when the content was new. But there were times when I built a task analysis for content (DAC) I had taught in the past. The content that was familiar was easy. For example, with the jump roping I could get by without an analysis because I have done it before and my kids are pretty proficient...the fifth grade boys like jump rope which made it easier to complete a task analysis. (Int. #5 P. 1 Line 36-40)

Stephanie referred to units that she had either never taught, or that she revisited during implementation.

When she referenced content that “was easy” she was describing skills that she taught during each of her six years leading up to implementation. Easy skills included: throwing, catching, dribbling with feet, and dribbling with hands, usually in the form of that specific sport. Stephanie found new content was “exciting and a new challenge”. She

approached the planning and implementation enthusiastically but at times the “easy skills” were not planned with the same focus. She stated:

If I had a good work weekend and focused on PE then I would build a task analysis. So in the years past it was kind of hit or miss. I would watch a couple of videos or look up something online. This year task analysis really helped but was sometimes challenging. (Int. #5 p. 1 Lines 26-29)

The use of the DAC and toolkit helped, but the process implementation was difficult at times. Throughout the first year Stephanie mentioned being “overwhelmed and organized” about planning. She was overwhelmed because change is difficult and organized because she followed structured steps in the process. She testified:

Changing my planning is still a work in progress. I would plan really well for two weeks, and then take two weeks off. I found that task analysis was necessary for sequencing content, and was probably my biggest struggle with planning. (Int. #9 P. 5 Lines 188-196)

The challenge of developing a DAC and preparing for each content area with the same enthusiasm was difficult for Stephanie. At times throughout the implementation process, she would take a break or revisit content she had taught in the past. This sense of overload did not only occur during the planning process, but was also identified when implementing assessment.

*Assessed like crazy.* During the implementation process, Stephanie came to view assessment as something she could not teach without. She felt it was the best form of accountability for a teacher’s physical education program and the profession as a whole. She said:

Assessment is accountability on three levels. Assessment is for the administration, teachers, and kids. Administrators value programs that include student assessment. It helps me decide which content needs to be revisited and modified. This gives the students another example of what they should be learning. (Int. #5 P. 5 Lines 167-170)

For Stephanie, providing documentation for the physical education program was very important. The reference to administration included providing proof that classroom activities met the standards. Additionally, she used assessment as a tool to evaluate her instruction, which benefited students.

First, it was important to demonstrate to the administration that both school and district level physical education were guided by learning objectives and performance indicators. The administration included both Principal Rileigh at Shasta and school board members. In fact, a school board member had observed a lesson in Stephanie's gym during the year. She provided him with the lesson objective and explained how she was assessing it through the toolkit. She expanded on that experience:

I think that it (toolkit) has made my drive for assessment greater. I had a school board member come in and we had written fitness goals. I showed him the goals and explained that they met standard three. I feel like we are transferring what we are learning on paper. I think that he was pretty impressed by the amount of time we spent. (Int. 1 P.5 lines 172-178)

The "we" in the previous quote referred to the curriculum sub-council. She believed that the hard work, time, and effort put into the toolkit could only be demonstrated through assessment. The visit from the school board member solidified why accountability was so important for Stephanie. She did not want to feel unprepared if another member of administration walked through her gymnasium doors. She stated:

Right now I always think that if a school board member walks in I want to be ready. I want to be able to tell them what I am teaching. This will provide accountability for the program and the profession. (Int. #4 p. 6 Lines 201-203)

It was not every day that a school board member walked into a classroom and observed a lesson. Stephanie was well aware of that fact, but wanted to air on the side of preparedness:

I write the assessment on the white board and I mark which performance indicator it addresses. So at least it is written out and I can go back and use it as more of an accountability thing. That way, if the principal comes in I can easily say, ‘look here and see my objective and the assessment.’ (Int. 1 P. 1 26-31)

Stephanie almost always had the day’s learning objective written on the whiteboard, as well as that day’s assessment. Although it was important to Stephanie for the administration to know that the physical education program at Shasta was driven by assessment and standards-based curriculum, assessment was not implemented solely for that purpose. She also viewed it as a tool to evaluate her teaching.

According to Stephanie, the next level of accountability was for teachers to benefit from student assessment as a pedagogical tool to understand what the students were learning. Assessment provided Stephanie with the information to make lesson plan adjustments and modify the progression of the DAC as needed. Stephanie acknowledged that, “based on the assessment I would move on to the next progression or the next unit and this (assessment results) made me go back and revisit it the following week. In the past I would have moved on”. (Int. #9 p. 5 Lines 176-177)

Not every assessment dictated Stephanie’s next planning decision, but the progression was stronger than in the past. There were specific examples that Stephanie could recall when assessment was used to plan or revisit certain skills. She elaborated:

I used assessment to better understand my teaching. I selected a few classes one week to try some assessments so I could take a look at where we were with dribbling (with hands). It was a good assessment and students’ responses helped me plan for the next lesson. (Int. 2 P. 4 Lines 127-135)

Previously during the same interview she provided a similar example:

I did a dribbling assessment that week and only four kindergarteners responded correctly (cognitive assessment, student were to color the “finger-pads” on a worksheet provided). That told me that I needed to revisit that content for that grade. I spent a lot of time thinking about the importance of assessment and how it was helping my teaching. (Int. 2 P. 3 Lines 115-122)

Stephanie testified to a change in assessment approach compared to the previous years and how it affected her decision-making. Additionally, a majority of the assessments attempted gathered student information regarding the cognitive domain.

Throughout implementation Stephanie focused on developing rubrics, teacher checklists, and forms of assessment that she and students could understand. There were various assessment tools but she tried to select examples that would “get results”. When assessing student cognitive ability during the implementation year she often thought her students knew something and then discovered they did not. She said:

When I assessed this year, I thought that my students knew something and then I sometimes found that I had made an assumption. My students could demonstrate the skills, but it was the understanding and cognitive piece that they struggled with. They could show it to me and explain it, but when they had to put it on paper they did not always get it.

It was difficult for Stephanie to recall non-paper/pencil assessments that did not measure the cognitive domain. Stephanie viewed assessment as a form of accountability to administrators and to guide teachers’ pedagogical decisions. In addition, Stephanie described assessment as the best way to advocate physical education to parents and others. She described:

I still think people look at PE as a waste and the parents of some students still look at it like you roll out the ball just as a way to expend energy. I always thought I had a quality program but the pieces missing were accountability, assessment, and documentation. I want consistent documentation where I have the evidence to show parents what’s going on in here...I think that’s important so that people know that PE has changed. (Int. #13 P. 8 Lines 323-329)

Stephanie's initial approach to assessment during the spring term of implementation was procedurally inconsistent.

The student teachers had provided a plethora of assessment examples to use and modify, which was helpful to Stephanie. However, the fact that there were two people constructing and administering the assessment was overlooked until the spring. Upon reflection Stephanie stated, "I think that Eric did a good job but he was focusing on one class-- his worksample class" (Int. #1 P. 2 Lines 51-52). She explained implementing assessment on her own and the initial inconsistency:

I tried (assessment) and I am kind of all over the place. I was attempting to assess every standard for every grade. Then I realized I needed to take one standard at a time, one grade level at a time, and a couple of performance indicators at a time.

Similar to the planning process, there were units throughout implementation that Stephanie did not attempt to assess. She explained this choice accordingly:

It was so hard to do assessment in only 50 minutes a week. Plus, during certain parts of the school year like during standardized testing, they were getting assessed like crazy. Sometimes I gave them 50 minutes of hardcore movement, so during those times I took a break from assessment because...they (students) needed physical activity.

Throughout the process Stephanie was not completely satisfied with her attempt to implement assessment. She did, however, implement more assessment than she had in the past and felt that the attempt was a good start. She explained:

I am unsatisfied with the amount of assessment I did this year and I want more. I want to see it on paper so that if someone was to walk in here I could say, 'this is what we did or are doing and they know it'. I want it more for my understanding of whether or not they (students) are really getting it. I also want it for accountability.

She expressed a desire to continue more assessment in the future, and along with the curriculum toolkit would like for assessment to inform her instruction.

*Revisiting reflection.* Reflection also informed Stephanie's decisions during the implementation process. Stephanie employed the strategy while the student teachers were present. Upon the student teachers' departure, Stephanie continued to revisit and utilize reflection to assist her through the implementation process. Reflection, like both planning and assessment, was not a totally new concept. Stephanie had regularly planned and occasionally attempted assessment, and reflected on her teaching leading up to implementation. Reflection was a strategy that Stephanie revisited during the implementation year. Specifically, she recalled using reflection as a teaching strategy during her first few years:

Reflection was a big one. I think that using reflection again this year was good. I thought to myself, why did I go away from it the last few years? So that was something I developed in pre-service teaching that I used again. I've carried it over to my career and implement it with student teachers. (Int. 10 p. 11 Lines 480-484)

The reflection process shifted from daily dialog with student teachers to using the toolkit and journal entries to frame ideas. Reflection continued to occur daily after school and there were times that Stephanie reflected mid-lesson to make changes. Additionally, she would change a lesson approach between classes. For example, if she taught a second grade class and an activity or portion of the lesson did not go as planned or did not meet the objective then the task would be modified and changed. She would also double-check the toolkit to make sure she was teaching to the objective. She provided an example:

I thought a little more about what I was doing. When I taught something in the middle of class I would pull it (toolkit) and think to myself, is this what I am supposed to be teaching in the second grade? I would go back and read the performance indicator and, oh, yes I am. So some of it (tasks) was not exactly prepared in the beginning of the lesson but I at least glanced at it (toolkit) during or

after the lesson. For example, one week I was teaching long ropes to second grade and I could swear that it was stationary so I revisited the document and found out exactly what I was doing so it matched. (Int. #3 p. 4 line 138-144)

Stephanie thus described the use of the toolkit as a form of reflexivity. Again, reflection occurred after lessons and after school but the improvised adjustments stemmed from the toolkit and her established routines during the spring term.

### *Curriculum Knowledge*

Stephanie's perceived understanding of curriculum knowledge addressed her ability to change content as she navigated through the process. Two concepts influenced curriculum knowledge. First, Stephanie's role on the curriculum sub-council positively impacted her understanding of the toolkit. Second, her knowledge regarding the toolkit permitted her to change and critically reflect on curricular decisions.

Stephanie acknowledged that her role on the curriculum sub-council impacted implementation positively. The role of curriculum developer was significant in understanding the content within the toolkit and knowing the standards and performance indicators in more depth. She explained:

I think that being on the curriculum development team has helped tremendously. I can't repeat it (toolkit) all but I can repeat a lot of the indicators. I may not know whether it is fourth grade or third grade but I can tell you that dribbling with hands continuously in self-space is a first grade indicator. I helped write it and reviewed it daily and I know it. So I think diving through it helped me become more familiar with it and not as afraid to use it. (Int. # 1 P. 3 Lines 79-83)

Her understanding of the curriculum toolkit provided her with curricular knowledge and therefore, she did not fear to use it. Eventually, her understanding of the toolkit enabled her to change and manipulate content specifically to meet the performance indicators. For example, she and Sharon dissected a performance indicator for greater clarity. She stated:

Even Sharon and I talked about this one. I think that we need to separate some of the skills into different performance indicators. We are not taking them out because I think that all of the kids can reach them, they just cannot put them all together. (Int. #4 P. 8 Lines 302-304)

Stephanie was referring to performance indicators that she thought were too large and too difficult in their current format. She explained:

It is performance indicator 2.1.13 ...transfer, balance, level, and pathways in a simple sequence...now you can do levels and pathways together and balance and weight transfer together but...this is a lot for a second grader's mind. So you have to look at it as a skill that 80% of our kids can meet You do not need every kid, but at least 80% of the kids at each school to make it attainable. If it is not then it needs to be separated or placed at a different grade level. (Int. #4 P. 8 Lines 308-316)

Splitting and manipulating the performance indicators provided support to Stephanie's command of the curriculum. At the start of implementation she would teach and view each performance indicator without questioning the decisions. However, as the process moved forward Stephanie critically viewed the document and challenged performance indicators that were confusing or irrelevant for her students.

Stephanie understood the curriculum toolkit from the development aspect and implementation provided her with specific examples of how performance indicators aligned with the national standards. She explained:

I really understood the toolkit three quarters of the way through. I could match it to everything. Any of the team stuff I could tell you that it is a 5<sup>th</sup> grade performance outcome. The manipulative activities for the younger grades I can tell you that it is in self-space or to a wall or to a partner. I'm really focused on the standards and Standards-Based. (Int. #5 p. 3 Lines 99-103)

She commented on matching all content to the toolkit. Throughout implementation it was apparent that she viewed the document as a way to justify content selected. She truly believed that all content, if taught using the best practices, matched a standard. Her

perception of curriculum knowledge and understanding of the toolkit supported her ideas of new content implementation.

### Support

Support was the most salient theme related to the changes in Stephanie's teaching. She received multiple levels of support that influenced the implementation process. This idea included both the provision and the use of support. It was provided by four entities: the student teachers, talking shop, significant others as forms of support, and he did not do my job. The student teachers' presence initiated major changes to Stephanie's teaching practices and is reported using three sub-categories: planning, assessment, and reflection. Talking shop describes the support provided by the professional learning community (PLC) that sustained the changes to her teaching practices during the spring term by providing input and sense of purpose to her efforts. People behind the scenes served as significant others as forms of support and encouraged the change to her approach. Finally, the category of he did not do my job explains the support provided by the instructional coach. The support entities initiated, sustained, and encouraged the changes Stephanie made during the implementation process.

### *Student Teachers*

The student teacher influenced by supporting the implementation process and Stephanie's teaching routines in three ways. Introducing or revisiting teaching strategies were viewed as support. First, the student teachers' presence influenced Stephanie's planning strategies. Second, Stephanie viewed assessment differently largely from observing the students teachers' examples provided during their time in her gym. Finally,

Stephanie revisited teacher reflection with the student teachers which provided the overarching concept to her decision-making throughout the implementation process.

*Planning.* The student teachers' presence not only influenced but supported Stephanie's planning strategies in two ways. First, they helped her organize her planning process. Second, Eric and Steve introduced her to different ways of planning. They helped Stephanie organize her planning procedures. The student teachers were required by the university to plan lesson by lesson, week by week, and multiple weeks at a time. Not only were Eric and Steve required to plan weeks in advance, but they accordingly prided themselves in doing so. She elaborated on the student teachers' approach to planning:

I think that they helped as far as planning and organization. They were good planners and got me thinking a little bigger. Not just daily lessons but week by week. So I think that they got me back on track by planning for nine weeks. (Int. #7, P.1 Lines: 8-12)

The organization of lesson, unit, and block learning objectives stemmed from the toolkit. Stephanie planned with Eric and Steve using the toolkit as the framework.

The objectives used for Eric's striking with paddles unit were adopted from the toolkit directly. The fifth grade objective stemmed from the standard one performance indicator 5.1.8 (see Appendix A). Steve's fifth grade unit objective for jumping and landing resembled performance indicator 5.1.13. Upon establishing the fifth grade unit objectives they then planned the skill progression necessary to meet these objectives in the form of the DAC.

Eric introduced Stephanie to the DAC, which consisted of labeling movements into three categories: extension, refinement, and application tasks (Appendix H).

Extensions were progressions that made a movement task either more or less difficult.

Refinement tasks focused on making a movement better and were at times referred to as learning cues. Application tasks were planned challenges and most of the time referred to as games (Rink, 2006).

The substance of the lesson plans or activities were planned to meet each category in no specific order. Eric provided students with an extension task such as striking the ball continuously in their own personal space. Then the students were instructed to demonstrate successful attempts without the object dropping to the ground as their application task. Finally, students were provided a refinement task or reminded of the cue “flat paddle”. The three-part sequence repeated until the end of the lesson.

Steve developed a similar DAC for jumping and landing. The DAC charts were planned for the entire unit. According to Stephanie, the creation of the DAC made the student teachers and her more aware of planning for refinement tasks (cues). She stated:

I think that they (student teachers) really helped with that refinement piece that I was missing in my program, which is now apparent. I still had a quality program and hit on a lot of the skills and corrected them. I was giving a lot of feedback and refinements without knowing but now I am just a little bit more aware. (Int. #1 P. 4. Lines 123-127)

The use of refinement tasks was one concept that helped her with lesson sequencing. The notion of providing feedback in the form of cues benefited the planning process and therefore benefited the students.

Stephanie and the student teachers would predict how many tasks they could fit in during one given lesson, which provided them with a stopping point on the DAC. Subsequently, the stopping points were utilized as individual lesson objectives. Lesson plans were developed using the predicted stopping points or lesson objectives.

Approximately four lessons were planned to meet the unit objective or performance indicator. Stephanie adopted this process and it allowed her to conceptualize planning progressions throughout units. Stephanie referred to the DAC as a “task analysis” and stated, “I think that they (student teachers) got me back on track by planning for nine weeks and then organizing that plan by using task analysis”. (Int. #8 p. 1 Line 13-14)

Stephanie’s newly-adopted planning process for implementation did not stop when the students departed at the end of the fall term. Moreover, their model provided a structured process that she would continue to follow and improve upon. She explained:

I have tried to become more specific in lesson planning and writing things down. I have held myself more accountable. I tried to make sure that I implement all the pieces from the document we created over the last year. I was more planned than I have ever been. However, the overall planning pieces had come a long way since the fall. (Int. #3 p. 4 Lines 134-138)

As stated, the planning process continued throughout implementation. The student teachers initiated the process and modeled the strategies that Stephanie adopted.

*Assessment.* Stephanie viewed assessment differently than she had in the past, largely from observing the student teachers’ progress during their time in her gym. The student teachers introduced her to new assessment strategies that ultimately provided Stephanie with enough information to develop assessments after their departure. Each unit taught included a series of assessment to measure student progress toward meeting objectives. The student teachers planned pre- and post-assessment for each unit taught. The pre-tests provided baseline information which allowed Stephanie and the student teachers to adjust the progression as necessary.

The lessons following the pre-test included formative assessment, or check-ins. Formative assessments were typically in the form of exit slips, teacher checklists,

entrance slips, and lists of questions provided verbally by the student teachers at the ends of lessons. At the conclusion of each unit post-tests were utilized to assess objective achievement and student learning. Stephanie had always wanted to implement assessment but had never been provided multiple models of how to assess until the student teachers came along. She explained:

They (student teachers) definitely helped me with assessment both pre- and post-. The checklists were good and I am definitely not a checklist person. I just have to get over it and do it. I am more (like), give everyone their own paper. But pre- and post-test have to be done according to a checklist. So I think that I can do it but was just a little rocky in the fall. They definitely helped with assessment. (Int. 7 P. 1 Lines 13-16)

Stephanie had previously attempted assessment; however, the implementation of it was daunting. In fact, assessment was one individual goal listed on her district professional growth chart. She had also completed a course pertaining to assessment during her pre-service training. In addition, prior to implementation she sought professional development opportunities in assessment and continued to seek guidance and resources during her first couple years of teaching. She described her previous view of assessment prior to implementation:

When I had Principal Mitchell here I always had assessment as my individual professional goal. I also had some of it (assessment) in school (college) and I only came out seven years ago. Assessment has always been scary to me. I know there is tons of it out there and I have experimented with it... but again it has always been on my professional development plan and I have yet to succeed at it. This year I actually feel like I have succeeded a little bit. I have been doing more assessments and building a baseline. (Int. 10 P. 6 lines 247-253)

Additionally, Stephanie remembered back to her student teaching with Bridget and recalled her “making paper-pencil assessments look easy”. It was not until she attempted it on her own that she realized how “difficult and overwhelming assessment could be”.

In the end, it was the pair of student teachers who initiated Stephanie's efforts in assessment. Her perceived ability to develop and implement it allowed her to continue the practice throughout the school year.

*Reflection.* Stephanie revisited teacher reflection with the student teachers, which provided the overarching concept to her decision-making throughout the implementation process. Mentoring student teachers provided her with more time to reflect each day. They held each other accountable that they would reflect verbally on what occurred each day, if not each lesson.

Throughout the process Stephanie and the student teachers relied on reflection to inform their decisions. During her first couple of years of teaching she reflected daily but in the years leading up to implementation she had moved away from the practice. The student teachers forced her to reflect at the end of each day, and helped her reflect on content and her approach.

Stephanie and the student teachers would both journal and diagram concepts and ideas during the reflection sessions. The journal was ongoing dialog documenting events, suggestions, ideas, and observable classroom scenarios. At any time throughout the day entries were made in the journal (Appendix I). Dialog was open for all persons observing a lesson. Documenting her reflections during the year helped her process all of the changes attempted. Not only did the reflection sessions help frame their planning, assessment, and decisions during the first semester of implementation, but also provided a forum to collaborate on effective teaching strategies. Stephanie provided detailed description of the reflection process and dialog between the student teachers and herself:

I think that the student teachers brought me back to reflections a little bit. You're always reflecting at the end of the day at 3:00 p.m. either by yourself or with

someone else. It (reflection) can be about management or instruction and content but I think the student teachers really helped me reflect on content. A lot of it came from the journaling. I kept my old journal from student teaching and tagged things that were successful in at least my first two years. I would journal things (activities) to never do again, or say do this activity again, or say this is a great game for this grade level and it worked very well. We would use diagrams-- I have pictures of games because I have to see it. Having the student teachers in here gave me a more formal time to reflect because they're always evaluating and reflecting. Even during their practicum last year they would start evaluating and looking at lessons just to do a little more personal reflection. Documenting it this year to me means processing all of the things I'm trying to change. (Int.10 P. 4-5 Lines 175-188)

The student teachers were prepared for the experience and contributed during the reflection sessions. However, they were still learning, inexperienced, and required guidance during their time at Shasta. Reflection session dialog included both curricular decisions and classroom procedures.

The student teachers understood elementary physical education content well and Stephanie provided information on management and classroom protocols. She explained:

I think that it (reflection) happened pretty much daily. We reflected a lot during their time here. There was some on management and other things that student teachers need to know, but curriculum content was the focus of most of the conversations. (Int. #7 P. 2 Lines 56-59)

During the semester Stephanie and the student teachers' relationships grew professionally. Stephanie, Eric, and Steve approached the mentor/ protégé relationship as a team-teaching situation. They were comfortable in their roles to work and learn together. For example, even though they were students, Eric and Steve provided their opinion about the process, which helped them become better teachers. Stephanie commented on the student teachers' presence:

I think that it was nice to have them here because I could talk to them about how we were going to implement something that I had spent the last two years writing. I think that I would have gotten more frustrated with it if I did not have someone else with me. If I was by myself I think I would have still embraced the curriculum

because I helped write it, but I don't think I would have wanted to research it and go back and reflect on why certain things did or did not work. (Int. #7 P. 1-2 Lines 36-51)

Stephanie attributed the successful transition to the student teachers, and found it valuable to have their support and collaboration when attempting curriculum implementation. Mentoring and observing Eric and Steve during the first half of implementation provided Stephanie with an understanding of how she wanted to approach teaching upon their departure. Another form of support during the implementation process was the professional learning community established in the spring of that year.

### *Talking Shop*

Support from the PLC sustained the changes to Stephanie's teaching practices during the spring term by providing input and instilling in her a sense of accomplishment. The PLC was developed and proposed by a group of district elementary physical educators in the fall of the implementation year. Meetings were originally framed with the curriculum toolkit in mind. As proposed, the PLC was a way to provide the elementary physical educators, not members of the curriculum sub-council, a platform to discuss the toolkit and its adoption. The PLC met a couple of times in December, once in January, and approximately four additional times during the spring term. The participants met in the evenings, usually from five to seven p.m. Professional development units were awarded to the teachers who attended the meetings. A number of professional development units must be accumulated by teachers to retain their teaching certification by the state.

To Stephanie, the PLC was a form of support in three ways. First, she received professional development units. Second, it provided opportunity to collaborate with other elementary physical educators in the district. Finally, it was a forum used to reflect and gather information, get feedback on her teaching, and a time to discuss the curriculum toolkit.

Meeting with groups to talk about curriculum was nothing new for Stephanie. She had been involved in the curriculum toolkit development for a couple of years prior and “talking shop” was not in any way burdensome. In fact, she stated, “we got one whole credit (unit) for meeting about 15 hours during the school year”. (Int. 11 P. 7 line 272) She emphasized the “one whole credit” and mentioned multiple times that most of the participants would have met anyway, so to receive units was a bonus.

Stephanie developed a sense of pride in how elementary physical education was viewed in the district. She believed that the district viewed the efforts of the curriculum sub-council and their production of the toolkit as good work. She went on to say:

I think we (elementary physical education) have enough accountability, and as long as we have it together they (district administrators) will still give us professional development units. Now we want to start earlier next year, so we’re going to do the same thing (meet as a PLC). (Int. 11 P. 7 Lines 264-267)

The PLC’s value was exemplified through units and praise, but even more so as a positive forum for physical education teachers’ camaraderie and collaboration. Stephanie best described that beneficial aspect of PLC meetings by stating:

I think it all came down to the discussions. We would meet for two hours and talk about work. For example, Carolyn (pseudonym, PLC member) said ‘you know this is the first year of all the years... I’ve gotten to know all the PE teachers’. We decided that personal discussion is why we love the learning community and now there is a bond between all of us. I told her I thought the group was fun and I’m ready to do it again. (Int. 11 P. 8 Lines 279-284)

Carolyn was a veteran teacher of 20+ years. Her expression to Stephanie resulted from the positive environment set forth by the PLC. She attributed the bond created during the meetings to both getting to know people, and discussion led by a common area of interest.

Stephanie's perception of the PLC's value went beyond just meeting and talking about physical education. The content and feedback discussed during the meetings informed her teaching during the spring of implementation. Information provided during the meetings included feedback on her attempt to change her approach. She described the support during the first couple of meetings:

I think in the beginning we started off really well and maybe a couple of meetings in the middle really helped. The first couple of meetings really focused on the curriculum and it would virtually always get back to content. So we (PLC) actually tackled gymnastics the first couple times and I shared some of the activities that I was doing with a lesson plan and some assessments. (Int. #11 P. 5 Lines 186-190)

Stephanie led the gymnastics discussion and presented her attempt of implementing the content. The feedback and support during those meetings affirmed that what she was attempting during implementation was "worth it". Stephanie approached the PLC meetings as a chance to reflect on her year as she did when the student teachers were present. She described the support:

It (meeting information) could be a content area that we have not taught in a long time and another teacher really knows what they are doing. Or maybe I have taught it and I relay a couple more ideas that have worked well for me. When I presented gymnastics they all gave me extra ideas that I did not even think about. I looked at it as great feedback and something I can use in the future. (Int. #3 P. 2 Lines 56-60)

The PLC provided Stephanie feedback in multiple areas besides just the content of gymnastics?

Throughout the implementation process, Stephanie often tried to change her instructional approach to teaching elementary physical education. In the years leading up to implementation she often separated grade levels by the type of equipment they used. Meaning, for the primary grades (K-2), Stephanie's instructional approach was providing them with an overload of non-manipulating skills (locomotor, space awareness, balance) while presenting the intermediate (3-5) grades with all manipulative skills (kicking, dribbling, throwing) which all required the use of equipment. Her perception of this approach changed during implementation. She stated:

We talked about that (content between grade levels) in our learning community and I have taught things like balancing and transferring weight, but I need to teach with those skills in mind for the fourth and fifth graders. I have to figure out what grade levels to teach it with so that I am meeting all of the indicators. My program up until this year has focused more on the bigger skill themes, such as dribbling with feet or hands and throwing and catching, and not focusing on the littler skills like balancing for the older grades. (Int. #3 P. 2 Lines 69-75)

The discussions pertaining to the performance indicators and teaching non-manipulative movement skills to the older grades made sense to Stephanie through the support of the PLC. She recalled thinking about that concept when developing the curriculum toolkit but had a difficult time understanding it until she had the opportunity to hear others discuss the concern. She described:

We (PLC participants) discussed that (progression) in the learning community we (teachers) do not really do a lot of balancing in fourth or fifth grade. I did it in the second grade or I do it more in the first and second grade. Pathways I do more in the second or third grade. I am guilty of that, too, but when you look at pathways, in small-sided games, or with dribbling with hands, it makes sense. (Int. #9 P. 8 Lines 284-288)

The form of support that PLC and students teachers provided during both terms influenced Stephanie's process of implementation.

### *Significant Others as Forms of Support*

People behind the scenes served as significant forms of support and encouraged the change to Stephanie's approach. She received significant forms of support which included Shasta's administration both prior to and during implementation, and the faculty of the university. The significant forms of support were perceived more as resources than directly-relating to the implementation year. Stephanie's former principal, Mitchell, influenced how she approached teaching and specifically planning. Her principal during implementation, Rileigh, supported Shasta's physical education program and essentially supported Stephanie's efforts. She described Shasta's administration's support:

I think if someone (Mitchell) did not push me I would have been flying by the seat of my pants and that would have hurt my program now. Even mentoring student teachers ... lesson plan development and asking them what they are going to teach and why was helpful. I think that I would have been planning more in the shower in the morning and I don't function great like that, anyway. Now I do have Rileigh's support for what I was doing and that is awesome, but I think that my program would look a lot different if I was not pushed my first three years. (Int. #4 P. 5-6 Lines 194-202)

The university faculty support had been on-going since the PEP grant. Stephanie's perception of their support was twofold. First, viewing her as a colleague provided a sense of appreciation and second, she knew that if she had called or emailed them, they would help. The relationships between Stephanie and the university faculty had grown through years working together on the curriculum toolkit.

The faculty's extensive knowledge of the curriculum toolkit was comforting to Stephanie. Without it she would have continued searching for resources as she had done in the past. Therefore, the implementation year was different because of the guidance received from the document. She elaborated on her appreciation:

I think I would've been really frustrated without the toolkit. I would've been searching the Internet for resources. I would've called on my colleagues a little bit more. I would've definitely called on Tina (another faculty member and curriculum sub-council facilitator) and Sharon if they had the time. This, by the way, is intimidating as well. (Int. #12 P. 7 Lines 303-309)

Initially, Stephanie was intimidated by the university faculty and viewed her interactions with them as “student and teacher”. Actually, Stephanie would have had a bit of anxiety if they asked for input or wanted to observe her teach. On occasions, the university faculty members requested classroom observations for their pre-service teachers or an opportunity to model lessons at Shasta. Eventually, Stephanie viewed these requests as a privilege. Of course, she still got nervous when teaching in front of or with them, but she viewed it as a working relationship and appreciated their support. She commented on her joy of working with Sharon and the utilization of her experience:

I love working with Sharon a little bit more on the professional side. She put it well in my letter...she said, ‘there are not many people that would ask a past professor to come in and team-teach’. That was very valuable because she was so willing to come in. I was intimidated. She is a Doctor (PhD) and very respected in our profession, but that was not going to stop me from utilizing her in here. (Int. #8 P. 7-8 Lines 156-160)

Stephanie had requested a letter of recommendation from Sharon while she was on sabbatical. Sharon agreed and Stephanie interpreted her willingness as support and congeniality. Combined with having the student teachers during the fall and the PLC developed in the spring, the faculty support was needed but was viewed more as behind the scenes. However, she explained, help was available:

Their (faculty) support was different this year... Sharon was on sabbatical and Stefan (another faculty member) took another job. However, if I really needed something done they were an e-mail away and I know they would've helped me with whatever I needed. (Int. #10 P. 3 Lines 88-90)

Stephanie's comments solidified her appreciation in regards to the ongoing support received from the university faculty members.

*He Did Not Do My Job*

An additional significant form of support was my presence in the gym. I had been viewed as a university resource and an instructional coach. My support was perceived on four levels: student teacher supervisor, graduate student, former elementary physical educator who could relate to the process, and an instructional coach— full participant in the implementation process. Like the university faculty members previously mentioned, my support was constant. However, my support for Stephanie was directly related to the implementation year. Our professional relationship had begun developing prior to implementation and was strengthened throughout the process. Stephanie trusted my ability to work with the student teachers as their university supervisor. In addition, our in-depth conversations about implementation provided a sounding board for Stephanie and thus supported her through the process. My willingness to model lessons in her classroom gave her confidence in my ability. She commented on my presence in her gym during the implementation process:

The faculty members are still there, too, because I felt that it was a close group and they would come in if needed. I just don't use them as much because I had two student teachers briefly and I had you the whole time. You have elementary experience and experience in higher education so you were like getting both. I felt that you were definitely a huge resource during implementation. (Int. #10 P. 3 Lines 94-99)

Stephanie viewed my presence as an instructional coach, meaning one that was always there to provide feedback upon her attempts. She would often teach a lesson for the first time during implementation. If I was there to observe then she would provide a

description of what she was going to implement. Often, that same day after I had left the gym she would email, text message, or call to update me on what had happened after my departure. If Stephanie knew that I was going to observe her the next day she would explain what had happened and inform me on how it changed her approach throughout the class rotation. She commented on my presence in this capacity:

Matt was in there all the time. So I would call him and explain what had happened in the fifth grade that day. He would always provide feedback. It (feedback) was not positive or negative he just knew we were trying to accomplish the same goals. He would give advice and ask me how it related to what I was trying to do throughout the year.

Stephanie trusted my feedback and did not find my presence as undermining her ability.

Stephanie credited her success and ability to continue with implementation to my presence in her gym. She was anxious to attempt implementing the curriculum toolkit but was not without sense of burnout. She commented:

It was nice to have someone here as an instructional coach. I do not think that I would have done as well without having Matt in the background all year. He helped but did not try to do my job. It was like having a good coordinator giving you feedback that was knowledgeable and someone to reflect with constantly.

Overall, Stephanie received positive support from the student teachers during the fall of implementation, from the PLC during the spring, and from Shasta's administration and the faculty from the university. In addition, my presence as an instructional coach supported her efforts during implementation.

#### Student Response

Stephanie had always expressed a desire to improve physical education at Shasta and make change to benefit her students. She viewed the implementation of the curriculum toolkit as a positive impact on the quality of her physical education program. Although she would admit that her previous program was not bad, Stephanie described

her attempt as an opportunity to “try something new and do what was best for kids”. She admitted that the benefits for her students outweighed any frustrations.

Throughout the implementation process Stephanie perceived student response on two levels: behavior and oh you need a “Flat Paddle”. The change in student behavior was not a direct response to the new curriculum but a combination of multiple factors. Stephanie’s perceptions of oh you need a “Flat Paddle” describes the skills learned that were a direct result of teaching strategies and instructional approaches changed. She believed that student response varied by class, effects of previous instructional approach, grade levels, units taught, and skill level.

### *Behavior*

Initially, Stephanie did not recognize that student behavior changed during implementation. As the process continued, she recalled thinking that there was a different response from students that year but never connected the behavioral change to implementation at the beginning. Eventually, emphasizing the recognition of change in behavior through reflection she stated:

As I got further along into implementing the curriculum I realized that maybe my approach over the last couple of years was the cause for behavior problems. Why was I blaming the kids, or the change in population, or the change in leadership when it was the way I practice and teach my program? (Int. 13 P. 1 Lines 36-39)

This perspective indicated that previous teaching practices and approach did alter student behavior. The easiest way to change her approach was to modify equipment used. She explained, “Even changing the use of equipment was simple and effective”. Throughout her reflections she provided examples of a striking with short-handled implements unit that further demonstrated her willingness to change equipment to elicit positive student behavior. For example:

The striking of beach balls was more of an experiment. I realized that (equipment change) was one of the things that modified student behaviors. Not that I was doing inappropriate practices before... I just think looking back; modifying equipment could very well have influenced behavior.

The previous statement emphasized the concern of providing students with developmentally appropriate challenges. Not all grade levels reacted positively to these challenges, or more specifically curricular change. There was a distinct difference between how the primary (K-2) and intermediate (3-5) grades responded during implementation.

Most often, students' responses were based on their familiarity with activities' structure or because they just wanted to "play the game". The implementation year was different from what they had previously experienced in elementary school physical education at Shasta. For example, each educational games unit included teaching lead-up skills in isolation and ended with small-sided games (two v. two), which some fourth and fifth grade students viewed as too simple or boring.

Stephanie felt that there was a specific response indicative of grade level. She explained, "I think the older ones were the toughest. The little guys love it no matter what" (Int. 9 P. 11 Line 399). She expounded on the notion that the older kids did not agree with the decision to move away from the large-sided game model:

I think the older ones struggled but the little ones did not. The little guys are always asking, 'Can we play soccer?' I would answer, 'we are going to use the soccer balls but we have to practice some things first. The older students still wanted to play the large games. I would not let them and tried to them that they would learn more doing small-sided games. But for some reason they still want to play the whole class games. (Int. #6 P. 5 Lines 151-158)

Stephanie did admit that not all of the students in the fourth and fifth grades responded negatively to the change. However, she recalled "bad behavior" and negative responses

from a few older kids. She recognized that this behavior truly came to the forefront upon the student teachers' departure, and it tended to be from the students she would classify as the "jocks" or kids that were more skilled. One fourth grade boy's response to the change supported this observation:

I think the two student teachers during new curriculum played a role in kids not voicing their opinion. Maybe it was because they were new or maybe because they were male; I did not see a whole lot of trouble until the second semester when I took it over myself. I'm not sure the kindergarten through third graders noticed anything but the fourth and fifth graders would tell me that they liked how I did things before. My little buddy Deion (student) was pretty vocal this year about what he liked and did not like. I do not think it was ever the majority and I said before that some of the girls really liked small-sided games and the changes and some of the guys did not. There were some successes and some weaknesses but I think it (negative behavioral response) was definitely there with the older students. (Int. 13 P. 5 Lines 205-215)

The kindergarten through third graders either did not acknowledge or simply did not understand that the elementary physical education program at Shasta was different. The fourth and fifth graders did notice and let Stephanie know about it initially. However, toward the end of the school year she noticed a change in attitude from the older grades. After struggling all year to justify the importance of the change to the fifth graders specifically, Stephanie felt that most of the fourth and fifth graders started to appreciate the approach. She explained:

Some of the fourth and fifth graders struggled with change. Not everyone struggled, but maybe five of the kids—a few of the jocks. They would beg me to play something bigger but I would have to stop them and say, 'if I do that you will be the one sitting out. Do you want to do that? Are you going to sit out if we play a full game of basketball or hockey?' Eventually the rumors were that the fifth grade classes grew to love this approach. They wanted to play games like two v. two hockey. I would pick their teams and teammates by skill level. By the end they loved it. (Int. #9 P 11 Lines 401-407)

Stephanie had persevered despite the initial negative behavioral response from a few of the older students. Her positive perception of student response was that students acquired

and retained skill more effectively. Stephanie's true motivation to continue justifying the approach stemmed from her perception of student learning.

*Oh You Need a "Flat Paddle"*

Stephanie's attributed the students' ability to learn skills to her new approach to teaching during implementation. She described the positive response in two major ways. First, less-skilled students thrived in the skill themes approach. Second, students were able to transfer concepts learned in one content area to another. These concepts enabled students to retain knowledge throughout the year.

Stephanie referred to less skilled students benefitting more from the skill themes instructional approach. Specifically, she shifted her instruction from planning teaching tasks to focusing on individual movement patterns as charted in developmental analysis of content charts and the use of small-sided games. Stephanie described how she viewed low-skilled students benefitting:

The less- skilled (students) definitely benefit from this curriculum because the way you teach it should accommodate all students of every skill. I think back to the best practices I learned in college and I was not doing that as much as I should. Implementation just made me realize how beneficial small-sided games could be for the less skilled students. (Int. #9 P. 11 Lines 424-427)

Stephanie often mentioned the benefits of small-sided games throughout the implementation process. She felt that this change allowed students to work on specific skills in isolation. Small groups enabled Stephanie to get a sense of what students were attempting to accomplish. Pinpointing what students need to improve upon to meet the objectives eased with the changes in the learning environment.

Stephanie believed that the approach provided them the chance to work at their own level. She did, however, recognize that the less-skilled students were susceptible to

embarrassment by working on their own in front of their peers. She elaborated on the benefits received by the less-skilled students:

You typically put the less-skilled in a safer environment so that they are not in front of the class. But then it really made them realize that they needed to work on the skill. They did have the chance to work at their own level but now there were times when there was nowhere to hide. It (environment) showed me where the weaknesses were. I would say, ‘work on your own skills and don’t worry about what the other students are doing. I can see this is hard for you; that’s why you get lots of practice time in this setting. (Int. #10 P. 3 Line 110-115)

She attempted whenever possible to set up the learning environment to eliminate the embarrassing situation. Organizing the class so that students were not “spotlighted” was sometimes difficult but she felt that learning outweighed the potential embarrassing situation.

Students were able to transfer concepts learned in one content area to another. These concepts enabled students to retain knowledge throughout the year. Stephanie perceived the transfer of learning as a result of the change to the instructional approach. Refinement tasks (cues) transferred from one unit to another was a copulation of using the same terminology throughout the implementation process. Stephanie provided a list of examples of observable forms of skill transfer:

I could see crossover transfer. It (cue) could be stepping with opposite foot for throwing or striking. They remembered passing while dribbling with hands and looking for open space, and then did the same thing dribbling with feet so the cues for skills transferred or crossed over. I was teaching a hockey unit and we did passing while making your partner move, and then we brought into dribbling with feet a lot of those same activities. When the kids got the same activity for different content they already knew the cues. (Int. #10 P. 9 Lines 393-401)

Stephanie perceived the previous occurrences as positive student response to the curricular change. Eventually, she believed that these episodes of learning or transfer resulted in the older students understanding the importance of the implementation process

and the approach. Stephanie explained that it may not have changed their beliefs but they started to appreciate the change:

A lot of kids still just wanted to play the game. For dribbling with feet they wanted to play side-line soccer. But I think that some of the students started thinking of that transfer of skills. In January we were striking with hockey sticks in pathways, and then we were dribbling with hands and working with pathways. I think that the students started to understand. (Int. #4 P. 2 Lines 58-61)

The example of fourth and fifth graders accepting the approach was important for Stephanie. There were times during implementation that she would revert to her old ways. She revisited prior teaching strategies for two reasons: she was overwhelmed, and students did not like the change and voiced their disapproval.

Stephanie's perception of student response was very positive toward the end of the school year when she felt their acceptance, "I did some paddle games and I could see the skill transfer. I think that is because we spent so much time on striking with paddles and the approach. The older students' attitudes were slowly changing" (Int. #4 P. 9 Lines 72-75). Stephanie knew that change was not going to happen overnight. However, perceived student learning legitimized the effort of attempting change throughout the year. She provided an additional example of skills transferred during the implementation process:

I remember when I was teaching first and second grade and maybe even kindergarten in April. I reminded the students to remember way back in October when Eric taught us striking, and they all thought yes, flat hand, and it worked when striking with paddles. They thought, oh, you need a flat paddle. Then I had them throwing and catching one day and they remembered at the end of the year what we had talked about at the beginning of the year. That was just amazing for my younger students. (Int. #5 P. 13 Lines 516-520)

These examples validate student recollection of information throughout the implementation process. Stephanie mentioned specifically that student could retain the cues.

Overall, student response was both negative and positive. The negative perception stemmed from a few of the fourth and fifth graders' behavioral response during the spring term. The positive perception was a direct result of students understanding on two levels. Not only did less- skilled students benefit from the new approach, but most students were able to retain information for months at a time.

## CHAPTER V

### DISCUSSION AND RECOMMENDATIONS

The purpose of this study was to examine the reflections of a physical education teacher after the first year of new curriculum implementation. In this chapter findings will be discussed in relation to the research purpose and relevant literature. Following the discussion, conclusions, limitations and recommendations for future research are suggested. Finally, potential implications for teacher education are explained.

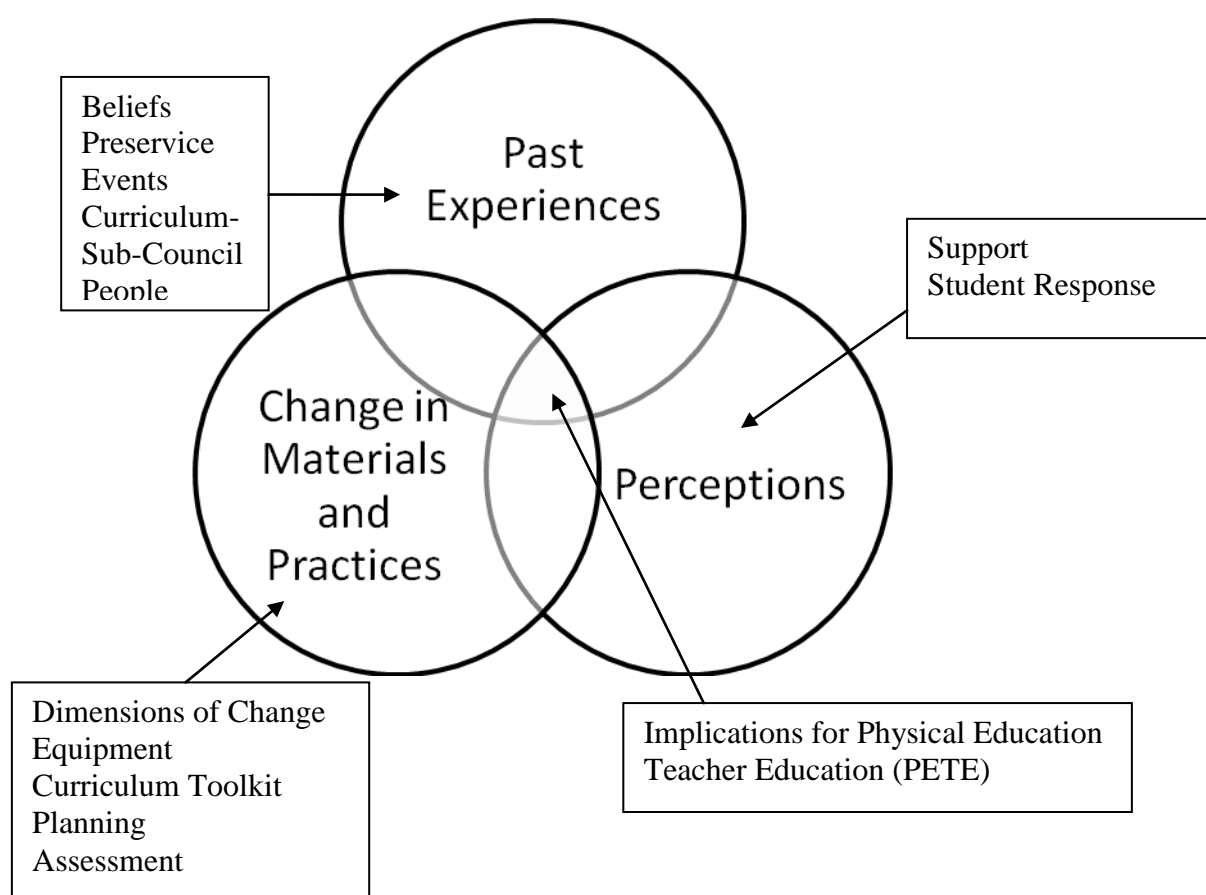
#### Discussion

For the teacher in this study past experiences, changes in materials and practices, and her perspective of the change process were all used to examine the implementation of a new curriculum. While discussed separately the three aspects interact with each other and from that interaction implications for physical education teacher education can be drawn (Figure 3). The discussion is thus presented in three sections. Each section presents results of the study and how they extend or contradict existing literature. Additionally, the figure provides a visual to how the sections were outlined. Each box represents constructs that influenced the main categories.

#### *Past Experiences*

When teachers implement change, they are not blank slates. Their attitudes and beliefs stem from what they have previously learned and experienced and thus inform the decisions they make and strategies they employ (Louis, Marks, & Kruse, 1996). The

combination of what is learned through these experiences is the process of developing knowledge. Teachers' knowledge has taken on many forms, but cannot be viewed in isolation or without overlap. It has been suggested that teachers are not born with knowledge to teach effectively, but construct their knowledge over time and experiences (Rovegno, 2003). Therefore, understanding a teacher's past experiences may provide insight to "why" and "how" certain decisions were made by the teacher in the current study.



*Figure 3. Discussion Framework*

Findings indicated that three aspects during the years leading up to implementation influenced the curriculum implementation process: the ability to persevere, lack of resources, and being a part of the curriculum sub-council. The ability

to persevere was influenced by a former principal whose supportive, but sometimes overbearing, nature affected her approach to the implementation process. He expected that teaching have a positive impact on student learning. His expectations stemmed from weekly observations and the submission of daily lesson plans which initially were perceived as burdensome demands. However, over time she understood that these demands were necessary and resulted in the understanding of hard work and the ability to persevere even in trying circumstances. Even though the former principal was two years removed leading into implementation these characteristics he helped instill were perceived as influential during the process.

Two examples serve to particularly support the teacher's ability to persevere: the occurrences of the first week of school and older students' response to the curriculum change. Initially, a disastrous first week of the implementation year served a prime example of overcoming difficult situations. The teacher felt well prepared, planned, and enthused for the first week. However the week did not go as planned. For example, students responded apathetically to a different approach to management which she considered curriculum change. Additionally, she re-directed student behavior and called the principal into class to remove students which were not common actions in years leading up to implementation. Therefore, the first week was riddled with these unexpected responses from the students' across grade levels. The perceived setbacks could have deterred continuation of implementation if the teacher was not predisposed to these expectations.

As implementation continued the teacher perceived only the older students as not welcoming change. The upper grade levels wanted to participate in the large-sided game

approach that was used in previous years and voiced their dislike during the first half of the school year. The negative response from older students often frustrated the teacher and was perceived as a barrier to implementation. During this time there were multiple occasions that she wanted to revert to her previous approach. However, the teacher continued with implementation and eventually the older students grew to appreciate the change. In this case the teacher defied the notion that often curricular change is abandoned when students respond negatively (Cothran, 2001; Cothran & Ennis, 2001; Fullan, 1991). Therefore, results indicated that previous expectations influenced the teacher's ability to persevere and the sense of being able to accomplish anything.

Second, the lack of resources in the earlier stages of the teacher's career impacted the desire to acquire additional materials to guide her teaching. It is understood that most beginning teachers' anxieties stem from lack of experience which is a critical source of knowledge (Schempp, 1993). The easiest way for this teacher to compensate for this lack of experience was to seek a variety of teaching materials; the quest was exhausting and difficult. Eventually, after three year of teaching she found useful resources leading into implementation which enabled her to continue. A majority of resources were discovered while being a part of the curriculum sub-council which was in charge of developing the curriculum. For example, the teacher was taught how to use an instructional guide that was eventually adopted. In addition, books containing assessment examples were often introduced and used during meetings.

Third, the experience of writing the curriculum prior to implementation was influential in many ways. The teacher sought change and acknowledged the writing and adoption of new a curriculum as a good starting point. Fullan (2007) indicated that for

lasting change to occur teachers need to recognize the need for change, yet most teachers often fail to recognize such a need in their programs. In this case, the teacher not only recognized a need, but pursued change.

Furthermore, when the need is recognized the change must be relevant and the innovation objectives must meet the educational beliefs of the teacher. The relevancy of an innovation often occurs during the initiation phase when teachers are often not involved in the decision making. In this study the relevancy was enhanced as the teacher was a decision maker during the initiation phase. Alternatively, it has been suggested that teachers' reach a point of significant dissatisfaction with their programs and are willing to search for alternatives (Cothran, 2001). Cothran's suggestion parallels the findings in current study to an extent, but the teacher's involvement in the development of the innovation provided a unique advantage when viewing implementation as relevant. Findings from the current study revealed that the need for change occurred from a desire for increased knowledge leading into and during implementation. In addition, the teacher's efforts set-forth during the development of the innovation increased the desire to implement the innovation.

The chance to develop curriculum and serve on the curriculum sub-council provided an opportunity to gain curriculum knowledge and have an intimate knowledge of the innovation. After two years of developing the curriculum she could recite all of the standards and most of the performance indicators included in the document. Additionally, she could match tasks to elicit specific outcomes that aligned with performance indicators across grade levels. The objective of the curriculum sub-council was to produce a document for the district to utilize, thus the actual implementation was

not discussed as much during the meetings. The objective was met and therefore upon completion of the curriculum document the sub-council significantly decreased their formal meeting time. Fewer meetings resulted in the sub-council having little impact on the implementation process.

During the implementation process the teacher realized that certain teaching strategies and underlying beliefs were essential to implementing designed curriculum effectively. Simple changes such as writing objectives and referencing standards were clear because she practiced writing them as a member of the curriculum sub-council. However, the increased understanding of the curriculum document led to a false assumption that implementation would be fairly easy. This sense of “false clarity” could not have predicted how overwhelming some factors (planning, assessment, instruction, and content) would be during implementation (Fullan, 2007, pg. 89). Therefore, what would be considered more complex strategies used only during implementation such as developing content and implementing assessments were less familiar and lacked understanding in this case.

#### *Change in Materials and Practices*

The dynamic process of change includes three dimensions (Fullan, 2007; Sparkes, 1990). The first dimension refers to the potential change of materials, equipment, and/or the adoption of a curriculum package. The use of different materials and equipment are referred to as surface level, or superficial change (Sparkes, 1990). The second dimension of change includes the use of new skills, teaching approach, instruction, and strategies. Implementing change to one’s teaching practices are more difficult (Fullan, 2007). Third, is the transformation of beliefs, values, and perspectives which Sparkes (1990) considers

as real change. The most difficult dimension to attain is changing a teacher's beliefs. Essentially, the first two levels of change were the most observable changes in this study.

Findings indicated that throughout the implementation process of the new curriculum the teacher changed the materials and equipment. In fact, modifying equipment was perceived as important. The easiest way for the teacher to change was to implement different content that necessitated new equipment. Multiple units were driven purely by the equipment and her perception of best practices--specifically, practice time (Hastie, Sanders, & Rowland, 1999). Examples include the Bosu-fitness and yoga units. Essentially, the teacher deemed the units successful based on lots of movement and because it was different from the previous year. Units that met these criteria were viewed as "fitting" the toolkit and instructional guide. Therefore, this study supported Fullan's and Sparkes' idea that superficial change is the easiest and in this case was perceived as significant. Viewing a change in equipment as significant is not uncommon; some teachers may think the use of new equipment is equated to new curriculum (Fullan, 2007).

The teacher's adoption of different teaching practices also changed with the implementation of the new curriculum. She had always wanted a document to provide the physical education program with accountability and thus guide teaching practices. The adoption of *Children Moving* (Graham, Holt/Hale, & Parker, 2007) as a guide changed instruction from a multi-activity model to a skill-theme approach for several units. *Children Moving* was used throughout the development of the curriculum toolkit and seemed a logical guide to instruction. The gymnastic unit taught provided the best example of a skill-theme approach. Throughout the unit the teacher focused on the

student progression and the movement skills. The unit represented a transition from the first level to the second level of change or from purely equipment to teaching practice (Fullan; Sparkes).

Teacher change at the instructional level is multi-dimensional including aspects such as planning, content delivery, feedback, management, task variation, instructional alignment, and assessment. For this particular teacher, specific instructional strategies that changed during the gymnastics unit were planning and assessment. Her planning changed in two ways, content sequencing and communication. Content sequencing assumes that there is an ideal order in which tasks should be presented for optimal learning (Rink, 2002). In addition, content sequencing targets behavior that can be clearly defined. Communication provides students clear, concise directions and criteria for successful performance, and the need for specific, corrective feedback requiring the teacher to mentally organize the task and present it sequentially (Rink, 1994).

The current study extends previous findings which reported that instruction and assessment changed as a result of curriculum implementation (Bechtel & O' Sullivan, 2007; James, Griffin, & Dodds, 2008; Patton & Griffin, 2008). In this study, content sequencing was developed using a developmental analysis of content (DAC) format (Rink, 2006). The DAC format was used to assist the teacher when planning extension, refinement, and application tasks throughout the unit. During the actual instruction of this format she understood that sequencing should include progressing and regressing tasks, provide learning cues, and challenge students. The decision to use of the DAC was made in order to provide students with a clear sequence of progression and the utilization of refinement tasks. Essentially, content sequencing led to an emphasis on

movement skill or learning cues (refinements). The teacher utilized the DAC charts to pinpoint learning cues for units taught. Specifically, planning for refinement tasks were made apparent during the delivery of certain units taught therefore changing the previous instructional approach employed.

Second, during the implementation process the teacher had introduced a variety of assessments in comparison to previous years. Often, during implementation pre and post assessments framed the units taught during implementation and multiple formative assessments were used to check for student understanding. The approach to assessment was changed for three reasons: to benefit students, to inform the teacher's instruction, and to provide advocacy/ accountability. The importance of assessment is not new.

Assessment has the power to change teaching because it focuses teachers on what is important and provides feedback on the teaching process (Edmonds, 1979). As such, assessment is an invaluable part of the teaching-learning process (Rink, 2003).

Additionally, using assessment to benefit students and align or guide teacher instruction supports findings (Bechtel & O'Sullivan, 2007; Cothran, 2001; Cothran & Ennis, 2001; James et al, 2008; McCaughtry, et al., 2006; Patton & Griffin, 2008; Ward, 1999) in physical education.

The advocacy of assessment at the teacher level was unique to this study. She perceived assessment as a way to demonstrate to administrators, students, and parents that physical education has changed and should be held accountable. This is an important finding because as Rink (1993) suggested, if physical education cannot demonstrate observable outcomes, the field risks becoming "an area that can be reduced or eliminated" (p. 5). Only during the implementation process did the importance of

reporting outcomes become apparent. Examples included the need to continue assessment and report back to parents what their student was learning in class. Additionally, on occasions, district and school administrators observed the teacher and were impressed that student assessment was occurring in “gym”. Therefore, not only did tangible materials and equipment influence change but external factors in this case, advocacy did as well. Her ability to design and implement assessment throughout the school year was perceived as a form of accountability to her school’s physical education program while advocating for the profession. Overall, the implementation process influenced the materials and teaching practices of the teacher in this study. Therefore, this study confirmed Fullan and Sparkes notion of change for the first two levels. What is yet to be observed in this teacher’s case is whether or not these changes will transition into the third dimension of change which is beliefs. However, the teacher’s perceptions of how instructional strategies changed did indicate a shift in beliefs. What can be stated is that the teacher changed multiple pieces of equipment and adopted a few teaching practices after the first year.

### *Perceptions*

Two aspects reflected the teacher’s perception of the experience: support and student response. The findings of the current study determined that multiple levels of support were the most significant influences during the implementation process. Support was viewed as the “players involved” and “how they supported implementation”. The players involved in the process included student teachers, the professional learning community (PLC), significant others, and an instructional coach.

Research in educational change and physical education has found that a supportive structural and organizational environment enhanced the change process (Dyson & O'Sullivan, 1998). However, more recently, it has been suggested that teachers are often expected to initiate and implement change alone without continuous support (Ha, Chan, & Sum, 2006). Therefore, the multiple levels of support found in this study were unique.

Each of the players involved played a different role and influenced the teacher's decisions during implementation. More importantly, the different roles provided the teacher with the opportunity to work as a mentor, be mentored, and reflect on teaching practices. Essentially, mentorship played dual roles in this study. The teacher was a mentor to student teachers and likewise received outside guidance from others.

Particularly noteworthy was the form of support provided by the student teachers. This form of support provided the teacher with the knowledge needed to initiate change. It included introducing different teaching strategies such as assessment, planning, behavior models, and reflection. The collaborative efforts started the process of putting theory into practice. This extends the notion that the relationship between the two individuals should allow both to develop their respective skills while engaged in the mentoring arrangement (Bloom, Bush, Schinke, & Salmela, 1998). Mentoring and collaboration in this case occurred between the teacher and student teacher prior to the school year. The start of this relationship is best explained through a meeting that occurred during the summer before implementation. Planning for a new school year often begins before the students arrive. Teachers must set up their classrooms, formulate the first few weeks of classes, and organize schedules prior to students arriving. The

implementation years were no different for the teacher in this study, except planning shifted to focusing on a new curriculum and supervise student teachers. The preparation leading into the school year was a significant event according to the teacher, in that sufficient pre-planning was somewhat neglected in the few years leading up to implementation. The student teachers, on the other hand, were required to plan early.

As a result of the initial meeting and continued collaboration during the first semester of implementation a two-way mentoring process developed between the teacher and student teachers. The two-way mentoring process in this study proved supportive in many ways. Specifically, the student teacher's introduced and supported the teacher's effort to change planning and implement assessment. In return, the teacher was able to offer suggestions regarding procedural and management examples to address their inexperience in those areas.

In a study of experienced physical education teachers mentoring beginners in the field, McCaughty (2005) noted that mentoring models can be effective in enhancing the mentors' professional learning. However, there is concern that mentors lacking content knowledge may feel threatened by knowledgeable beginning teachers. Smith and Ingersoll (2004) voiced the same concern in their review of mentoring. The concern has been voiced but overall, mentoring models have proven beneficial to professional learning when implemented appropriately. The findings from this study provide further evidence that two-way mentoring mentioned was positive. Upon the departure of the student teachers other forms of support presented themselves. The shift for the teacher in the current study moved from mentor to mentored.

The second form of support was derived from the teacher's involvement in the district professional learning community (PLC). Studies of PLC's suggest that when teachers are provided an environment conducive for collaboration and learning together, they are able to develop and share ideas from their experience (McLaughlin & Talbert, 2001; Rosenholtz, 1989). Physical education research is just beginning to understand the value of professional learning communities. Understanding how these groups are established, sustained, and influence change is even more recent. However, a growing number of studies in physical education reported that teachers have benefited from their membership in these groups. For example, teachers have reported that these groups have provided a forum for change as well as increasing confidence in their own abilities and willingness to advocate for the profession as a whole. Additionally, it appears teachers are more willing to take risks, reflect on their failures, and share successful programs and practices because of their involvement in a PLC (Deglau, Ward, O'Sullivan, & Bush, 2006; Parker, Patton, Madden, & Sinclair, 2009).

In this case, the teacher's involvement in the PLC provided another forum of support that was accessible during implementation. Findings indicated that the PLC's efforts provided helped support and sustained the process of implementation. The teacher was able to share successful practices and receive feedback during PLC meetings. For example, the gymnastics unit was presented and feedback from other PLC members' was provided which eventually influenced other units attempted. Therefore, the PLC supported the teacher's efforts and extended the positive benefits suggested in the physical education literature.

The third form of support was significant others, which included school administration and curriculum facilitators. The literature on school change is very clear about the role of school administrators and the importance of getting their support for change initiatives (Fullan, 2001). The teacher benefitted from administrators support and credited the former principal's influence on implementation as providing the drive to persevere. Additionally, during implementation the buildings principal supported the efforts by checking on the progress regularly.

The curriculum facilitators supported the teacher throughout implementation. The relationship with curriculum facilitators was established many years prior to implementation but significantly grew during the time on the curriculum sub-council. Their support was perceived as on-going and trustworthy but behind-the-scenes during implementation. This finding was valuable because teachers' should accept assistance from professionals who have been specifically trained to apply theoretical knowledge in the practice of their skills (Armour & Yelling, 2004a; Fullan & Hargreaves, 1996).

An instructional coach provided a fourth level of support. His support was on-going and directly related to the implementation process. The teacher felt that all questions, suggestions, and feedback specifically influencing the process could be proposed to the instructional coach. The instructional coach was a person who had knowledge of the curriculum project, was the student teacher's supervisor, and present in the gym (as the researcher), throughout implementation. Their professional relationship during the process was built on support and trust. On numerous occasions the teacher was provided with feedback on lessons and developed DAC charts. There were multiple times

during the year that the instructional coach developed and modeled lessons for the teacher and the student teachers.

Examples of teachers receiving beneficial mentoring through a long-term collaborative relationship with researchers have supported this idea in education (Borko, et al., 2000; Borko, Mayfield, Marion, Flexer, & Hiebert, 1997; Cohen, McLaughlin, & Talbert, 1993). In addition, examples in physical education show teacher/researcher collaboration worked to improve a teacher development project (Patton et al., 2005). Specifically, results of their study indicated a positive response from everyone involved in the project. Teachers felt supported and empowered during the process. They felt that the researchers were there to help them to find practical solutions to their teaching challenges. The collaborative relationship between the teacher and researcher, as an instructional coach, was beneficial in providing a practical solution addressing an actual problem and was perceived as supportive.

Overall, the multiple forms of support provided the teacher with the opportunity to reflect throughout the process. Sparkes (1991) argued that to sustain change in schools, teachers should focus on critical reflection as a means of continually challenging their school environment. Additionally, teachers should reflect on their practices and utilize their colleagues throughout classroom experimentation (Rosenholtz, 1989). In this case, each level of support was available in that manner. For example, during the time with student teachers daily reflection challenged their thinking and practice through the use of reflection journals and conversation. Louis, Marks, and Kruse (1996) referred to “reflective dialogue” as teachers’ involved in-depth conversations about teaching to examine the assumptions basic to quality practice.

The final perception identified as important to implementation was how students responded to the “new” curriculum. Student response was classified as student behavior and learning transfer. This finding was significant because, a reason often given for success or failure of innovations is how teachers perceive the change to maximize the learning outcomes of students (Ha, Wong, Sum, & Chan, 2008).

Older grades responded negatively to the curricular changes, and the teacher’s perception was that the older students just wanted to play large-sided games. However, the literature suggests that student frustration may signal that (a) the teacher has omitted an important step in the lesson sequence, (b) students have not learned information in the previous lessons, or (c) they cannot apply what they have learned as the foundation for the new skill or knowledge (Rink, 2006). The teacher perceived student frustration stemming from boredom. Therefore, the choice to plan new content that did not fit into the curriculum and was essentially an “equipment curriculum” for the sake of leveling the playing field was taught. An introduction to new content was often novel and exciting to students because of the newness. However, the novelty of new equipment soon wore off and older student responded with negative behavior.

Alternatively, the teacher’s perceptions were that the less-skilled students benefited from the instructional approach. This benefit was related to the transfer of cue from one activity to another. Specifically, less-skilled students were able to retain knowledge of the cues for the entire school year. For example, the teacher noticed that students were able to transfer the cue of “stepping with opposite foot” during a throwing unit and striking unit. Additionally, by utilizing the same cue for multiple content areas she was able to use similar movement tasks for different units. Therefore, students were

perceived as able to recite and demonstrate the lesson cue more frequently during implementation.

For the teacher, the cost of change was worth the payoff in student reward. Doyle and Ponder (1977) describe this component of change as the ‘practicality ethic’ (p. 1) when teachers weigh the benefits of change in relation to the costs. It is a critical calculation and one that frequently ends up with the teacher deciding not to change, for all change involves costs which are clear and rewards which most commonly are not (Cothran, 2001).

Overall, support in one form or another is necessary for teacher change to occur (Dyson & O’Sullivan, 1998). This study reinforces the importance of support to assist teachers as they adopt new strategies, and change their teaching approach. The study extends a combination of support that may contribute to teacher development and ultimately change. The uniqueness of this study was the multiple levels of support and how each was presented to the teacher. The results provided in-sight to possible ways to conduct effective professional development (PD).

### Conclusions

This study provides additional evidence that change is possible at the teacher level. Additionally, these finding extends the research of teacher change in physical education. The first year of implementation initiated changes on three factors based on the participant’s perceptions. First, previous experiences influenced the teacher’s approach to implementation. Second, changes in the instructional approach and teaching strategies influenced implementation. Third, successful curriculum implementation relied heavily upon the teacher’s support systems.

Previous knowledge has an impact on implementation. Therefore, if one wants to understand how a belief system has been impacted and changed by curriculum implementation there needs to be an understanding of the value system prior and during implementation. Pinpointing past experiences may provide indicators needed to effectively change. The results of this study indicated that in order to have a increased understanding of teacher decisions during implementation, it was imperative to know what the teacher wanted to change and why. In the case of this teacher, decisions were based on knowledge constructed well before attempting implementation. This notion of knowledge included all that the teacher brought to implementation, beliefs, attitudes, feelings, reflections, and experiences (Clandinin, 1992). Eventually, it was concluded that prior knowledge informed the teacher's decision to change teaching practices and approaches throughout the process.

The teacher changed her teaching approaches and practices on multiple levels according to Fullan's (2007) dimensions of change. More difficult challenges of modifying practices were directly related to instructional change. However, in this case the teacher equated instructional change with curricula change. Curriculum is a somewhat problematic term in that it continues to generate a variety of meaning in different educational settings (Penny, 2006). Additionally, instruction and curriculum are dependent of each other when attempting change. Instruction has been defined as the delivery system that promotes the teaching-learning process for implementing the curricular plan (Jewett, et al., 1995). Observation and interview data revealed that the teacher viewed changing planning and assessment strategies as curricular planning and implementation. In fact, the curricular guide was utilized to write objectives that aligned

with the instructional approach. The instructional guide then became the focus of change while fitting curricular standards to the approach.

Identifying how the curricular plan impacted change was problematic. The teacher did, however, have an advantage over most teachers attempting change because of the teacher's role when designing the curriculum toolkit – the new curriculum being implemented. The teacher's knowledge of the toolkit elicited both positive and negative outcomes. Positively, the toolkit served as a guide throughout the process, which supplemented the use of *Children Moving*. Negatively, the teacher's content knowledge for certain units was limited and therefore instruction reverted to what was known in these instances. The teacher justified these actions by fitting it into the toolkit. Examples included the teacher's decision to choose a content area, develop an instructional plan then deciding what standard it addressed. The decision to plan units starting with the content rather than with the standards resulted in less focus on the toolkit.

Overall, this study adds to the existing physical education literature in two ways. Specifically, findings extend the research on educational change in physical education. First, to date, teacher initiated curricular implementation has been studied (Bechtel & O'Sullivan, 2007; Cothran, 2001; Faucette, 1987; McCaughtry, Martin, Hodges-Kulinna, & Cothran, 2006; Patton & Griffin, 2008; Pope & O'Sullivan, 1998; Rovegno & Banhauer, 1997a) for over two decades in physical education has been sporadic. Therefore, the current study provides additional in-sight into teacher initiated curricular implementation. Second, while support has been acknowledged as beneficial to curricular implementation (Dyson & O'Sullivan, 1998) it has most often been as isolated forms of support. Examples include: administrative support (Bechtel & O'Sullivan, 2007;

Rovegno & Banhauer, 1997b), collegial support (McCaughtry et al, 2006), and project facilitators (Patton & Griffin, 2008). The multiple forms of support this teacher had during the process were significant and needs further exploration. A combination and amount of support may be needed to successfully implement change. The teacher in the current study perceived the implementation as successful, received a tremendous amount of support, and yet a majority of change was directly related Fullan's (2007) first dimension of change. She often blurred instructional strategies as curricular implementation when transitioning into the second dimension of change. Therefore, results indicated that progressing through the dimensions of change takes time to evolve and confusion may still be present. Multiple forms of support may need to be continuous over time for a teacher to accomplish real change.

#### Limitations and Recommendations

This section is divided into two parts. First, the study's limitations are described to inform future recommendations for research. Second, recommendations for future research are explained using the significant findings as a guide.

Every study has limitations or possible shortcomings that influence how the research was conducted. This study was no different. The benefit of recognizing the study's limitations is two-fold and potentially beneficial. First, as a neophyte researcher, recognizing limitations assists in the learning process, thus learning from your mistakes. Second, understanding the limitations provides in-sight to what should be studied next.

This study's limitations included the timing between interviews and observations and an unrecognized closeness to the participant which enabled the researcher to "ask the dumb questions". First, all of the interviews occurred after the participant's attempt of

implementation. This design did not allow for more focused observations during the school year. Thus, the study design would have been strengthened if interviews and observations occurred simultaneously. Interviewing the participant immediately after lessons may have revealed different results on the decisions during the process. Second, it is recognized that building a professional relationship with participants in qualitative research strengthens the design. However, the closeness between researcher and participant was viewed as an inhibitor in one instance. Results clearly indicated that the researcher was a full participant in the study, although, initial interview data did not represent this result. After spending 12 months together during the implementation process it was just assumed that the researcher influenced the process. An additional interview needed to be conducted to represent the researcher as a form of support. These two limitations should inform future research recommendations.

The initial recommendations stem from the study's limitations. Researchers that plan to further examine the implementation process should consider triangulating interview data to "real-time" observational data to gain a true comparison of actions and words. Further, interviewing all participants involved will strengthen the study's results. In other words, interview every potential influence to the implementation process. The results of this study indicated that multiple people were involved in the process: former principal, student teachers, students, curriculum facilitators, PLC members, and the researcher. Therefore, their perspective would have provided additional insight.

Additional recommendations for future research were compiled from the current study's findings. There are five recommendations to extend this research. First, there were three other teachers involved in the development of the toolkit who were at different

stages in their careers. It would be beneficial to the study to find out their perceptions and analyze across cases. Teacher change research in physical education is sparse (Penny, 2006) thus more studies are needed. Results from this study indicated that the participant's experience and knowledge influenced process. Therefore, the suggestion is to compare these teachers across career stages.

Second extending this study's design and documenting this teacher's experience into years three through five of implementation is suggested. To date, few studies in physical education have studied the change process through the implementation cycle (Ha et al., 2008). In hopes of contradicting the notion that most attempts of curricular change fail after the first year (Fullan, 2007) more study is required. Results of this study addressed a shift in the participants teaching approach particularly pertaining to instruction. The participant in the current study is currently starting her third year of implementation and it would be invaluable to the profession to examine potential shifts in her belief structure.

Third, the particular school district selected for the study is currently adopting the curriculum toolkit as its standard. The teachers in the district that were not members of the curriculum sub-council should be evaluated. Findings may confirm or contradict that the teacher in the present study benefitted from being a part of the development.

Fourth, continued follow-up with the districts PLC should be pursued. The PLC was designed and implemented by the teachers in the district. It is suggested that among other factors influencing quality of a professional development (PD) program, the extent of teachers' involvement in design and planning of the intervention is often critical (Armour & Yelling, 2004b; Ha et al., 2004; Kirk & Macdonald, 2001).

Finally, the effects student teachers have on their cooperating teacher's decision-making must be examined. Findings from this study indicated that student teachers had a positive influence on the implementation process. Therefore, insight into how positive relationships develop between student teachers and cooperating teachers may potentially benefit in-service teachers willing to attempt curricular change.

### Implications

The results of this study have shaped suggested implications for physical education teacher education (PETE). First, PETE programs need to continue their efforts in trying to understand the values and beliefs of the students in their programs. The teacher in this case was six years removed from her pre-service but her pre-service education heavily influenced her decision-making during implementation. PETE programs may provide the pre-service teachers with the foundation to be successful but need to work in collaboration with the community as well as the teachers in schools. Collaborative relationships could develop positive two-way mentorships as indicated from the findings of the current study.

Second, Bulger and Housner (2009) recently suggested that "PETE programs and faculty need to step up and adopt a 'scholarship of engagement,' move beyond the 'comfort zone' in higher education" (p.449). They continue by challenging universities to provide professional development for practicing teachers and to make PD the "cornerstone of their programs". PETE programs should not only rely on the faculty members to provide support to local schools but demand that graduate students do the same. Findings of this study indicated that the instructional coach supported this idea. Additionally, long-term collaborative relationships with researchers have shown to be

effective in education (Borko, Whitcomb, & Liston, 2009) and physical education (Patton, et al, 2005). Finally, continued efforts to prepare PETE students so that they can be a positive influence on local schools may suffice. The support from prepared pre-service teachers helped the teacher in this study tremendously. The universities and their faculty need to be available and should view themselves as well-educated change-agents. Results from this study indicated that university faculty supported the teacher and her efforts which in turn provided support to the implementation process.

The final suggestion for PETE programs relates to the complexity of change. If PETE programs want preservice and in-service teacher to be successful then preparing them for the realization of this complexity is required. The complexity generally increases the difficulty of the change and can be examined with regard to difficulty, skills required, and extent of alterations in beliefs, teaching strategies, and use of materials (Fullan, 2007). In the current study changes in equipment, content, and instruction that would require a lot of work but were still manageable and were quickly implemented. For example, during implementation units that had been previously taught were modified by using more developmentally appropriate equipment or the use of learning cues. Complex concepts such as continuous assessment were either not attempted, or attempted sporadically and with caution. In addition, complex changes were viewed as works-in-progress and things to try either next year or not at all.

Understanding the complexity of change was addressed by two overarching concepts. First, the teacher's knowledge of the curriculum innovation enhanced the ability to navigate through implementation. Second, the teacher sought support (colleagues, student teachers, curriculum facilitators, and instructional coach) to continue

developing an understanding of concepts that were more complex. Both concepts prepared the teacher to make change. Findings of this study supported the notion that to initiate change, the individual and organization must be ready (Cothran, 2001). Initially, the teacher's preparation leading into implementation was viewed as enough understanding to attempt it. The various forms of support received during implementation helped the teacher apply the theoretical knowledge in the classroom. The support received served as an enhancer for the change process and specifically bridged the gap of complexity from theory to practice (Bechtel & O'Sullivan, 2007).

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## Appendix A

### Curriculum Toolkit

# Professional Toolkit

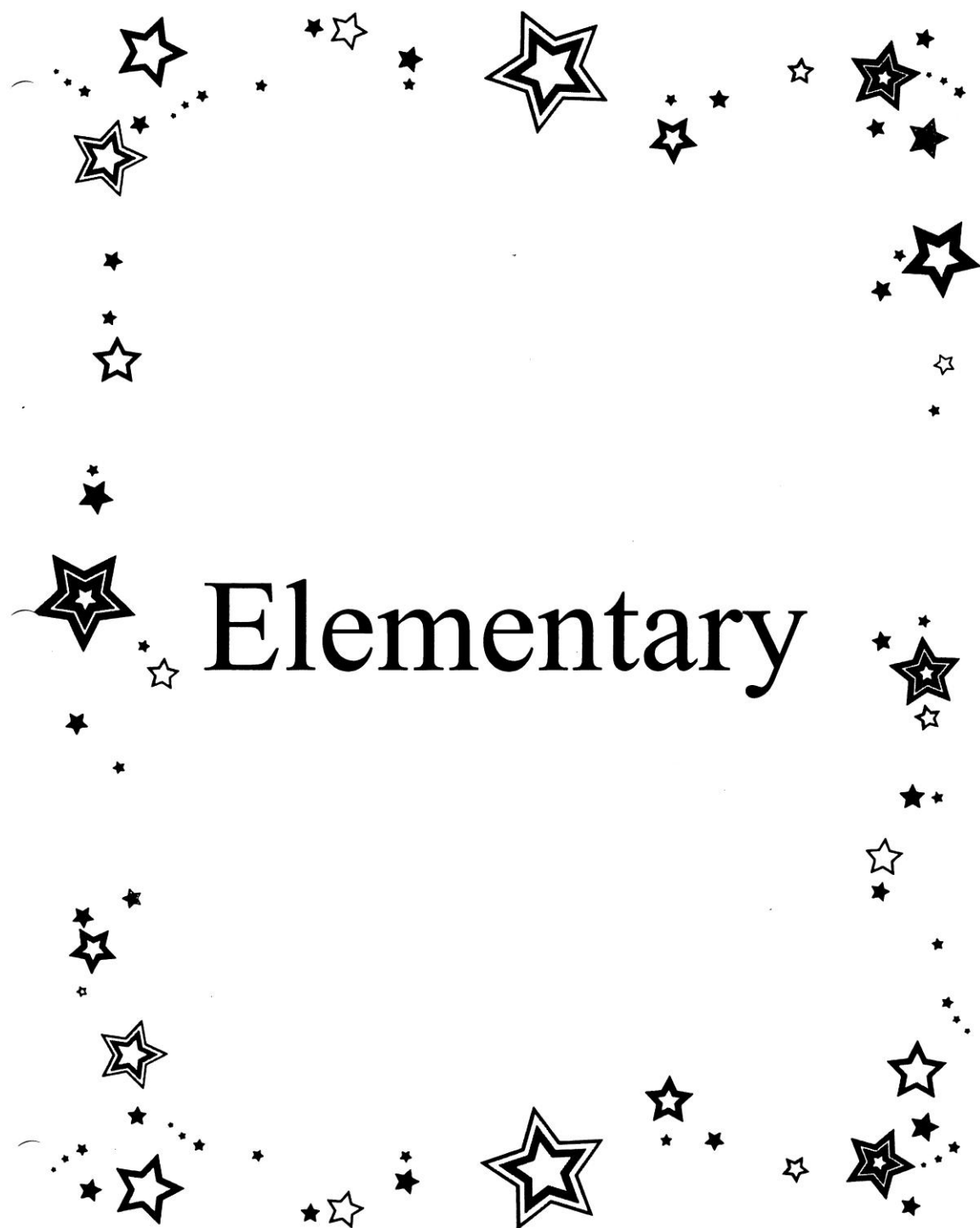
## K-12

## *Physical Education*

- ★ Contact Information
- ★ Elementary Section
  - ◆ Standards
  - ◆ Grade Level Standards, Benchmarks and Performance Indicators
  - ◆ Glossary
- ★ Middle School Section
  - ◆ Standards
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- ★ High School Section
  - ◆ Standards
  - ◆ Grade Level Course Expectations and Standards
- ★ FitnessGram Information
- ★ Writing to Learn

Weld County School District 6  
Division of Academic Achievement  
1025 9th Avenue  
Greeley, CO 80631  
970-348-6000  
[www.greeleyschools.org](http://www.greeleyschools.org)

July 2008



**Weld County School District 6**  
**Physical Education**

**Philosophy**

The purpose of physical education is to guide each student to the knowledge, skills and behaviors that allow them to lead healthy, physically active lifestyles.

**Mission**

Every student in Weld County School District Six will improve their physical skills and fitness levels by participating in quality, developmentally appropriate physical education programs designed specifically to enhance the cognitive, psychomotor and affective domains.

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## Physical Education Key Points

The purpose of physical education is to guide students to the skills, knowledge, and behaviors that allow them to lead healthy, physically active lifestyles.

Weld County School District 6's elementary physical education programs are designed to accomplish this mission by:

- Challenging children with innovative movement experiences to encourage DAILY physical activity to address current societal concerns related to activity and obesity levels in children
- Addressing the needs of the whole child through the development of personal and social responsibility and respect for the strengths and differences of others in physical activity settings
- Utilizing nationally recognized standards to promote the needs of all children in an effort to underscore lifetime fitness and wellness
- Using cutting edge technology to monitor and enhance health related fitness and skill development of all learners
- Meeting the needs of all children through progressive physical education practices in partnership with the University of Northern Colorado



# Standards

## NATIONAL STANDARDS FOR PHYSICAL EDUCATION (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-expressions and/or social interaction.

## Colorado Model Content Standards For Physical Education

**Standard 1:** Students demonstrate competent skills in a variety physical activities and sports.

**Standard 2:** Students demonstrate competency in physical fitness.

**Standard 3:** Students demonstrate the knowledge of factors important to participation in physical activity.

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Greeley-Evans School District 6  
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## WCSD6 Elementary Physical Education Standards &amp; Benchmarks

Standard 1	Standard 2	Standard 3	Standard 4	Standard 5	Standard 6
Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (NASPE, 2004)	Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities. (NASPE, 2004)	Participates regularly in physical activity. (NASPE, 2004)	Achieves and maintains a health-enhancing level of physical fitness. (NASPE, 2004)	Exhibits responsible personal and social behavior that respects self and others in physical activity settings. (NASPE, 2004)	Values physical activity for health, enjoyment, challenge, self-expressions and/or social interaction. (NASPE, 2004)
<b>K-2 Benchmark</b> Students demonstrate mature forms of basic locomotor skills and perform the skills in general space with control. Smooth transitions exist between combinations of locomotor skills within a sequence. Progress toward achieving mature form in complex manipulative skills (dribbling with feet) and mature form in less complex manipulative skills (underhand throw) is evident. Children can demonstrate control in weight transfer and balance activities on a variety of body parts. Skills are applied in simple situations.	<b>K-2 Benchmark</b> Students are able to apply the concepts of space, effort, and relationship (e.g., body parts, people, objects). They understand basic anatomy through the identification of different body parts. Elements of correct form are identified and applied in simple situations. Young children are able to use feedback to improve motor performance. Students have a basic understanding of health related fitness concepts.	<b>K-2 Benchmark</b> Students will participate in moderate to vigorous physical activity outside of physical education class for enjoyment and improved health. They will begin to utilize the skills and knowledge learned in physical education during their leisure time.	<b>K-2 Benchmark</b> Students engage intermittently for short periods of time in a variety of activities that serve to promote health related fitness. They are able to recognize physiological signs associated with participation in moderate to vigorous physical activity (e.g., sweating, fast heart rate, heavy breathing).	<b>K-2 Benchmark</b> Children experience how playing with friends can make activities more fun. They are able to understand and follow safe practices in all physical activity settings with little or no reinforcement. Foundations for successful interpersonal communication are built during group activities. Students are able to demonstrate acceptable behaviors in physical education.	<b>K-2 Benchmark</b> Students choose to be physically active because they simply enjoy participating. They enjoy the challenge of experiencing new movements and learning new skills and are encouraged by their increased competence. These learners begin to function as members of group and work cooperatively for brief periods of time.
<b>3-5 Benchmark</b> Grades 3-5 Benchmark: Students demonstrate mature forms and combinations of basic locomotor, non-locomotor, and manipulative skills in dynamic and increasingly complex situations incorporating appropriate movement concepts.	<b>3-5 Benchmark</b> As students are able to comprehend more complex concepts possessing an introductory tactical awareness and understanding basic anatomical and biomechanical principles as they apply to the performance of motor skills. Children are able to design games, dance and gymnastic routines that contain rules, skills, movement concepts and strategies. They are able to understand health related fitness concepts and apply technology to monitor and assess personal fitness.	<b>3-5 Benchmark</b> Students choose to participate in physical activity outside of physical education and are aware of physical activity opportunities available in the community. Students begin to recognize the relationship between physical activity and the quality of life.	<b>3-5 Benchmark</b> Students are able to achieve and maintain recommended fitness levels (Fitnessgram healthy fitness zones) for each of the 5 health related fitness components (aerobic endurance, muscular strength and endurance, flexibility and body composition). With teacher assistance students are able to interpret the results of health related fitness testing (Fitnessgram). Students choose to participate in movement forms that support achieving health related fitness.	<b>3-5 Benchmark</b> Children are in control of and accountable for their own actions while working independently and with others in a variety of physical activity settings. Students understand and follow safe practices in all physical activity settings. Children display appropriate communication and cooperation skills necessary to succeed in small group activities. Students increasingly recognize and respect the strengths and differences in others.	<b>3-5 Benchmark</b> Students understand that effort and practice lead to improvement, improvement leads to competence, and competence to enjoyment. They choose activities based on enjoyment and the goal sought. Students willingly try new things and engage in activity with persons similar and different to self. They celebrate the successes of self and others.



A decorative graphic on the left side of the page, featuring a vertical line of stars of varying sizes. Some stars are solid black, while others are outlined. The stars are arranged in a slightly curved, vertical path, with some appearing to trail off into the background.

# Grade Level Standards, Benchmarks, and Performance Indicators

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**Physical Education Standards  
First Grade**

***Standard 1:***

***Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (NASPE, 2004)***

**Grades K-2 Benchmark: Students demonstrate mature forms of basic locomotor skills and perform the skills in general space with control. Smooth transitions exist between combinations of locomotor skills within a sequence. Progress toward achieving mature form in complex manipulative skills (dribbling with feet) and mature form in less complex manipulative skills (underhand throw) is evident. Children can demonstrate control in weight transfer and balance activities on a variety of body parts. Skills are applied in simple situations.**

***Performance Indicators:***

- 1.1.1 Travel in general space using a variety of locomotor movements while avoiding others.
- 1.1.2 Dribble continuously with two-hands in self-space.
- 1.1.3 Catch a self-tossed, self-bounced and rolled ball.
- 1.1.4 Strike a slow moving object to self with different body parts.
- 1.1.5 Kick a stationary object with foot.
- 1.1.6 Dribble with feet in general space.
- 1.1.7 Dribble in general space with a long handled implement.
- 1.1.8 Turn an 8-10 foot long jump rope with a partner or stationary placement (i.e., such as a door knob).
- 1.1.9 Balance on different body parts in self space
- 1.1.10 Transfer weight from one body part to another.
- 1.1.11 Jump and land using the five basic jumps.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



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**Physical Education Standards  
First Grade**

***Standard 2:***

***Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities. (NASPE, 2004)***

**Grades K-2 Benchmark: Students are able to apply the concepts of space, effort, and relationship (e.g., body parts, people, and objects). They understand basic anatomy through the identification of different body parts. Elements of correct form are identified and applied in simple situations. Young children are able to use feedback to improve motor performance. Students have a basic understanding of health related fitness concepts.**

***Performance Indicators:***

- 1.2.1 Understand the concept of open space.
- 1.2.2 Articulate rules of simple games.
- 1.2.3 Identify fundamental motor skills and concepts while establishing beginning movement vocabulary.
- 1.2.4 Correctly identify various body parts.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



Physical Education Standards  
First Grade

**Standard 3:**

***Participates regularly in physical activity. (NASPE, 2004)***

**Benchmark K-2: Students will participate in moderate to vigorous physical activity outside of physical education class for enjoyment and improved health. They will begin to utilize the skills and knowledge learned in physical education during their leisure time.**

***Performance Indicators:***

1.3.1 Engage in MVPA on an intermittent basis.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



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Physical Education Standards  
First Grade

**Standard 4:**

***Achieves and maintains a health enhancing level of physical fitness.  
(NASPE, 2004)***

**Benchmark K-2: Students engage intermittently for short periods of time in a variety of activities that serve to promote health related fitness. They are able to recognize physical signs associated with participation in moderate to vigorous physical activity (MVPA).**

***Performance Indicators:***

- 1.4.1 Describe the physical signs associated with participation in MVPA (e.g., sweating, fast heart rate, heavy breathing).
- 1.4.2 Regularly engage in a variety of teacher directed locomotor, flexibility and weight bearing activities.
- 1.4.3 Participate in a variety of strength and endurance activities for longer periods of time without tiring (whining).

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
First Grade**

**Standard 5:**

***Exhibits responsible personal and social behavior that respects self and others in physical activity settings. (NASPE, 2004)***

**Benchmark K-2: Children experience how playing with friends can make activities more fun. They are able understand and follow safe practices in all physical activity settings with little or no reinforcement. Foundations for successful interpersonal communication are built during group activities. Students are able to demonstrate acceptable behaviors in physical education.**

***Performance Indicators:***

- 1.5.1      Respect self and others by following simple rules, maintaining self-space and using equipment as directed.
- 1.5.2      Understand the impact of his/her actions/behavior on others' opportunity to learn with prompting.
- 1.5.3      Work purposefully on an individual basis without bothering others.
- 1.5.4      Recognize the presence of a disagreement with others and the potential options for resolution.
- 1.5.5      Display consideration of others regardless of ethnicity, gender, disability, etc.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
First Grade**

**Standard 6:**

***Values physical activity for health enjoyment, challenge, self expression and/or social interaction. (NASPE, 2004)***

**Benchmark K-2: Students choose to be physically active because they simply enjoy participating. They enjoy the challenge of experiencing new movements and learning new skills and are encouraged by their increased competence. These learners begin to function as members of group and work cooperatively for brief periods of time.**

- 1.6.1 Try new skills and movements.
- 1.6.2 Articulate why physical education is good for them.
- 1.6.3 Identify reasons to participate in physical activity.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Second Grade**

**Standard 1:**

***Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (NASPE, 2004)***

**Grades K-2 Benchmark: Students demonstrate mature forms of basic locomotor skills and perform the skills in general space with control. Smooth transitions exist between combinations of locomotor skills within a sequence. Progress toward achieving mature form in complex manipulative skills (dribbling with feet) and mature form in less complex manipulative skills (underhand throw) is evident. Children can demonstrate control in weight transfer and balance activities on a variety of body parts. Skills are applied in simple situations.**

***Performance Indicators:***

- 2.1.1 Travel in general space changing speeds, pathways, and directions while avoiding others.
- 2.1.2 Catch a self-tossed large ball or object.
- 2.1.3 Dribble in self space with appropriate force with preferred and non-preferred hands.
- 2.1.4 Throw underhand with opposition to large target, like a wall from a stationary position.
- 2.1.5 Strike a lightweight ball with a paddle more than one time using an underhand motion to self with or without a bounce.
- 2.1.6 Dribble with feet in general space changing speeds, pathways, and directions while avoiding others.
- 2.1.7 Efficiently and effectively pass a ball with feet to a large target.
- 2.1.8 Dribble with a long handled implement in general space varying speeds and pathways.
- 2.1.9 Pass to a large target with long handled implements.
- 2.1.10 Pass with feet to a large target.
- 2.1.11 Jump starting from a stationary position in a long jump rope.
- 2.1.12 Turn an 8-10 foot long jump rope so that a single person can jump starting from a stationary position.
- 2.1.13 Combine balance, weight transfer, locomotor movements, levels, and pathways into a simple sequence. *\*split into multiple standards*
- 2.1.14 Balance and travel at different levels, on low, wide equipment.
- 2.1.15 Efficiently and effectively jump and land using different body shapes and different directions in the air.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

**Physical Education Standards  
Second Grade**

***Standard 2:***

***Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities. (NASPE, 2004)***

**Grades K-2 Benchmark: Students are able to apply the concepts of space, effort, and relationship (e.g., body parts, people, and objects). They understand basic anatomy through the identification of different body parts. Elements of correct form are identified and applied in simple situations. Young children are able to use feedback to improve motor performance. Students have a basic understanding of health related fitness concepts.**

***Performance Indicators:***

- 2.2.1 Illustrate the concept of open space.
- 2.2.2 Know that all games have rules.
- 2.2.3 Modify a teacher designed dance/gymnastic, exercise or jump rope routine, or game.
- 2.2.4 Identify critical cues of fundamental motor skills while developing movement vocabulary.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



Physical Education Standards  
Second Grade

**Standard 3:**

***Participates regularly in physical activity. (NASPE, 2004)***

**Grades K-2 Benchmark: Students will participate in moderate to vigorous physical activity outside of physical education class for enjoyment and improved health. They will begin to utilize the skills and knowledge learned in physical education during their leisure time.**

***Performance Indicators:***

- 2.3.1 Participates regularly in a variety of non-structured and minimally organized MVPA outside of physical education class.
- 2.3.2 Share physical activities in which they participate outside of physical education class.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Second Grade**

***Standard 4:***

***Achieves and maintains a health enhancing level of physical fitness. (NASPE, 2004)***

**Grades K-2 Benchmark: Students engage intermittently for short periods of time in a variety of activities that serve to promote health related fitness. They are able to recognize physical signs associated with participation in moderate to vigorous physical activity (MVPA).**

***Performance Indicators:***

- 2.4.1 Match the physical signs associated with participation in MVPA to the health related fitness components (muscular fitness, aerobic fitness and flexibility).
- 2.4.2 Regularly participate in a variety of locomotor, flexibility and weight bearing activities sustaining them for longer periods of time.
- 2.4.3 Participate in a variety of physical activities to gain understanding of intensity and time.
- 2.4.4 Recognizes that health related fitness consists of several different components.
- 2.4.5 Understand that basic technology can measure physical activity.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Second Grade**

***Standard 5:***

***Exhibits responsible personal and social behavior that respects self and others in physical activity settings. (NASPE, 2004)***

**Grades K-2 Benchmark: Children experience how playing with friends can make activities more fun. They are able understand and follow safe practices in all physical activity settings with little or no reinforcement. Foundations for successful interpersonal communication are built during group activities. Students are able to demonstrate acceptable behaviors in physical education.**

***Performance Indicators:***

- 2.5.1 Respect self and others by following simple rules, using equipment and space safely, and sharing.
- 2.5.2 Understand the impact of his/her actions/behavior on others' opportunity to learn with limited prompting
- 2.5.3 Work cooperatively with a partner by taking turns.
- 2.5.4 Acknowledge the presence of a disagreement with others and use simple conflict resolution to solve the issue with teacher prompting.
- 2.5.5 Accept all playmates without regard to personal differences (e.g., ethnicity, gender, disability, etc.)

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Second Grade**

***Standard 6:***

***Values physical activity for health enjoyment, challenge, self expression and/or social interaction. (NASPE, 2004)***

**Grades K-2 Benchmark: Students choose to be physically active because they simply enjoy participating. They enjoy the challenge of experiencing new movements and learning new skills and are encouraged by their increased competence. These learners begin to function as members of group and work cooperatively for brief periods of time.**

- 2.6.1 Understand the concept of physical activity
- 2.6.2 Willingly tries new skills and movements.
- 2.6.3 Engage in physical activity to maintain overall health and wellness.
- 2.6.4 Identify a variety of physical activities in which it is enjoyable for them to engage.
- 2.6.5 Express feelings about participation in physical activity.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Third Grade**

**Standard 1:**

***Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students demonstrate mature forms and combinations of basic locomotor, non-locomotor, and manipulative skills in dynamic and increasingly complex situations incorporating appropriate movement concepts.**

***Performance Indicators:***

- 3.1.1 Efficiently and effectively chase, flee, and dodge in game-like situations.
- 3.1.2 Dribble with appropriate force using preferred hand, while traveling in general space avoiding stationary objects.
- 3.1.3 Throw overhand with opposition and catch with a partner in stationary position varying distances and levels in a game-like situation.
- 3.1.4 Strike a lightweight ball with either hand off a bounce to a stationary partner or wall.
- 3.1.5 Strike a lightweight ball with a racket or paddle off a bounce to a stationary partner or wall.
- 3.1.6 Dribble with a long handled implement while traveling in general space avoiding stationary obstacles.
- 3.1.7 Pass and receive with a long handled implement while stationary.
- 3.1.8 Strike a ball off a tee.
- 3.1.9 Dribble with feet varying pathways and speeds while traveling in general space avoiding stationary obstacles.
- 3.1.10 Pass and receive with feet while stationary.
- 3.1.11 Effectively and efficiently turn a long jump rope to allow for successful jumping.
- 3.1.12 Successfully enter a turning long jump rope and jump.
- 3.1.13 Combine balance, weight transfer, and locomotor movements into a sequence using different speeds, levels and pathways.
- 3.1.14 Combine balance, weight transfer or roll, and locomotor movements in a sequence on equipment.
- 3.1.15 Efficiently and effectively jump using turns, shapes, and different directions in the air.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Third Grade**

**Standard 2:**

***Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities. (NASPE, 2004)***

**Grades 3-5 Benchmark: As students are able to comprehend more complex concepts possessing an introductory tactical awareness and understanding basic anatomical and biomechanical principles as they apply to the performance of motor skills. Children are able to design games, dance and gymnastic routines that contain rules, skills, movement concepts and strategies. They are able to understand health related fitness concepts and apply technology to monitor and assess personal fitness.**

***Performance Indicators:***

- 3.2.1. State the meaning of offense and defense within a game.
- 3.2.2. Differentiate between skills, strategies, and rules.
- 3.2.3. Combine at least two skills with space and effort concepts into a dance/gymnastic or jump rope routine from a teacher composed list.
- 3.2.4. Understand how critical cues of fundamental motor skills can be used to improve performance.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Third Grade**

***Standard 3:***

***Participates regularly in physical activity. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students choose to participate in physical activity outside of physical education and are aware of physical activity opportunities available in the community. Students begin to recognize the relationship between physical activity and the quality of life.**

***Performance Indicators:***

- 3.3.1 Participate regularly in structured and purposeful MVPA outside of physical education class.
- 3.3.2 Formulate a list of physical activity opportunities available in school and community.
- 3.3.3 List health benefits of physical activity.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Third Grade**

**Standard 4:**

***Achieves and maintains a health enhancing level of physical fitness.  
(NASPE, 2004)***

**Grades 3-5 Benchmark: Students are able to achieve and maintain recommended fitness levels (Fitnessgram healthy fitness zones) for each of the five health related fitness components (aerobic endurance, muscular strength and endurance, flexibility and body composition). With teacher assistance students are able to interpret the results of health related fitness testing (Fitnessgram). Students choose to participate in movement forms that support achieving health related fitness.**

***Performance Indicators:***

- 3.4.1 Classify the physical signs associated with participation in MVPA by the health related fitness components (muscular fitness, aerobic fitness and flexibility).
- 3.4.2 Participate in a variety of physical activities that support health related fitness components and the FITT (frequency, intensity, time, type) principle.
- 3.4.3 Participate in all aspects of *Fitnessgram* testing.
- 3.4.4 Identify his or her strengths and weaknesses based on results of *Fitnessgram* testing.
- 3.4.5 Correctly use basic technology to record physical activity levels.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



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Physical Education Standards  
Third Grade

**Standard 5:**

***Exhibits responsible personal and social behavior that respects self and others in physical activity settings. (NASPE, 2004)***

**Grades 3-5 Benchmark: Children are in control of and accountable for their own actions while working independently and with others in a variety of physical activity settings. Students understand and follow safe practices in all physical activity settings. Children display appropriate communication and cooperation skills necessary to succeed in small group activities. Students increasingly recognize and respect the strengths and differences in others.**

***Performance Indicators:***

- 3.5.1 Respect self and others by following rules, procedures, and standards of etiquette that are safe, with teacher support.
- 3.5.2 Accept consequences for his/her actions/behavior by acknowledging personal responsibility, with teacher prompting.
- 3.5.3 Work productively by allowing others to share their ideas in a small group or with a partner to accomplish a task.
- 3.5.4 Resolve issues and conflicts peacefully with teacher facilitation.
- 3.5.5 Recognize and appreciate the personal differences and similarities of others (e.g., ethnicity, gender, disability, etc.).
- 3.5.6 Care for others by providing simple encouragement with occasional reminders.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Third Grade**

**Standard 6:**

***Values physical activity for health enjoyment, challenge, self expression and/or social interaction. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students understand that effort and practice lead to improvement, improvement leads to competence, and competence to enjoyment. They choose activities based on enjoyment and the goal sought. Students willingly try new things and engage in activity with persons similar and different to self. They celebrate the successes of self and others.**

***Performance Indicators:***

- 3.6.1 Take initiative by routinely engaging in physical activity alone or with others outside of physical education.
- 3.6.2 Select and practice a skill on which improvement is needed.
- 3.6.3 Identify feelings about participation in physical activity.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fourth Grade**

***Standard 1:***

***Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students demonstrate mature forms and combinations of basic locomotor, non-locomotor, and manipulative skills in dynamic and increasingly complex situations incorporating appropriate movement concepts.**

***Performance Indicators:***

- 4.1.1 Throw (overhand/underhand) and catch a variety of objects on the move demonstrating force and accuracy in a small sided game.
- 4.1.2 Dribble using preferred hand while traveling in a small sided game.
- 4.1.3 Efficiently and effectively chase, flee, and dodge in small sided games.
- 4.1.4 Cooperatively and continuously strike a ball underhand to a partner using dominant and non-dominant hand with a bounce over a line.
- 4.1.5 Dribble and pass with hands on the move to a stationary receiver
- 4.1.6 Cooperatively and continuously strike a ball to a partner with a racket or paddle with a bounce over a line.
- 4.1.7 Dribble and pass with long handled implements while on the move to a stationary receiver.
- 4.1.8 Strike a ball with a bat off a tee to different places and different distances.
- 4.1.9 Dribble and pass with feet, while moving to a stationary receiver.
- 4.1.10 Enter and exit a long jump rope and jump continuously.
- 4.1.11 Combine balance, weight transfer, and locomotor movements into a sequence with intentional changes in direction, speed, level, and pathway with or without objects.
- 4.1.12 Combine balance, weight transfer or roll, and locomotor movements into a sequence on equipment with changes in level and direction.
- 4.1.13 Efficiently and effectively jump with turns, shapes, and directions in the air over a low object (6-12 inches) and land safely with one and two foot landings.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fourth Grade**

**Standard 2:**

***Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities. (NASPE, 2004)***

**Grades 3-5 Benchmark: As students are able to comprehend more complex concepts possessing an introductory tactical awareness and understanding basic anatomical and biomechanical principles as they apply to the performance of motor skills. Children are able to design games, dance and gymnastic routines that contain rules, skills, movement concepts and strategies. They are able to understand health related fitness concepts and apply technology to monitor and assess personal fitness.**

***Performance Indicators:***

- 4.2.1 Recognize simple offensive and defensive strategies used in small sided games.
- 4.2.2 Modify an existing game by changing skills, strategies, and/or rules.
- 4.2.3 Combine at least two skills with space and effort concepts into a dance/gymnastic or jump rope routine using both teacher composed and student generated lists.
- 4.2.4 Use critical cues of fundamental motor skills to provide feedback to others with appropriate movement vocabulary.
- 4.2.5 Identify basic muscles and bones.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



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Physical Education Standards  
Fourth Grade

***Standard 3:***

***Participates regularly in physical activity. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students choose to participate in physical activity outside of physical education and are aware of physical activity opportunities available in the community. Students begin to recognize the relationship between physical activity and the quality of life.**

***Performance Indicators:***

- 4.3.1 Consciously chooses to participate regularly in MVPA outside of physical education class.
- 4.3.2 Identify and engage in personal opportunities for physical activity in their school and community.
- 4.3.3 Understand the connection between physical activity and overall health and well being.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fourth Grade**

**Standard 4:**

***Achieves and maintains a health enhancing level of physical fitness.  
(NASPE, 2004)***

**Grades 3-5 Benchmark: Students are able to achieve and maintain recommended fitness levels (Fitnessgram healthy fitness zones) for each of the five health related fitness components (aerobic endurance, muscular strength and endurance, flexibility and body composition). With teacher assistance students are able to interpret the results of health related fitness testing (Fitnessgram). Students choose to participate in movement forms that support achieving health related fitness.**

***Performance Indicators:***

- 4.4.1 Define muscular fitness, aerobic fitness, and flexibility.
- 4.4.2 Participation in a variety of teacher and student directed physical activities for the purpose of improving health related fitness.
- 4.4.3 Understand how the FITT (frequency, intensity, time, type) principle can influence the health related fitness components (muscular fitness, aerobic fitness and flexibility).
- 4.4.4 Meet Health related fitness standards (HFZ) as defined by Fitnessgram.
- 4.4.5 Associate *Fitnessgram* results to personal health status and the ability to perform various activities.
- 4.4.6 Monitor physical activity using current technology (e.g., heart rate monitors, pedometers, and digital cameras).

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fourth Grade**

***Standard 5:***

***Exhibits responsible personal and social behavior that respects self and others in physical activity settings. (NASPE, 2004)***

**Grades 3-5 Benchmark: Children are in control of and accountable for their own actions while working independently and with others in a variety of physical activity settings. Students understand and follow safe practices in all physical activity settings. Children display appropriate communication and cooperation skills necessary to succeed in small group activities. Students increasingly recognize and respect the strengths and differences in others.**

***Performance Indicators:***

- 4.5.1 Participate in a manner that respects self and others by following rules, procedures and standards of etiquette that are safe and effective for specific activity situations with limited teacher support.
- 4.5.2 Accept consequences for his/her actions/behavior by acknowledging their personal responsibility with occasional prompting.
- 4.5.3 Work productively by listening to the opinions and ideas of others in a small group to accomplish a task
- 4.5.4 Resolve issues and conflicts peacefully and independently with teacher guidance.
- 4.5.5 Include others in a group without regard to personal differences (e.g., ethnicity, gender, disabilities).
- 4.5.6 Care for others by providing encouragement and refraining from putdown statements with occasional reminders.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fourth Grade**

**Standard 6:**

***Values physical activity for health enjoyment, challenge, self-expression and/or social interaction. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students understand that effort and practice lead to improvement, improvement leads to competence, and competence to enjoyment. They choose activities based on enjoyment and the goal sought. Students willingly try new things and engage in activity with persons similar and different to self. They celebrate the successes of self and others.**

***Performance Indicators:***

- 4.6.1 Engage in physical activity independently and/or in group settings outside of physical education with encouragement.
- 4.6.2 Understands that purposeful effort and practice lead to improved performance and increased enjoyment of an activity.
- 4.6.3 Value physical activity as evidenced by willingness to try new, personally challenging activities.
- 4.6.4 Associate participation in physical activity with varied benefits.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number

Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fifth Grade**

**Standard 1:**

***Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students demonstrate mature forms and combinations of basic locomotor, non-locomotor, and manipulative skills in dynamic and increasingly complex situations incorporating appropriate movement concepts.**

***Performance Indicators:***

- 5.1.1 Throw (overhand/underhand) and catch a variety of objects on the move demonstrating force and accuracy in a small sided game using simple offensive and defensive strategies.
- 5.1.2 Dribble and pass using preferred hand while traveling in small sided games preventing an opponent from stealing the ball.
- 5.1.3 Efficiently and effectively chase, flee, and dodge in small sided game situations with and without an object.
- 5.1.4 Efficiently and effectively overhand or underhand volley a lightweight ball continuously with a partner or small group in small sided game situation using simple offensive and defensive strategies.
- 5.1.5 Efficiently and effectively dribble, pass and receive a ball while traveling in dynamic small sided games using simple offensive and defensive strategies.
- 5.1.6 Efficiently and effectively strike an object continuously with a racket or paddle to a partner in small sided games using simple offensive defensive strategies.
- 5.1.7 Efficiently and effectively dribble, pass and receive with long handled implements while traveling in dynamic small sided games using simple offensive and defensive strategies.
- 5.1.8 Efficiently and effectively strike a ball in a horizontal plane from a consistent toss in small-sided games
- 5.1.9 Efficiently and effectively dribble, pass and receive a ball with both feet while traveling in dynamic small sided games using simple offensive and defensive strategies.
- 5.1.10 Enter and exit a long rope and jump continuously while turning, changing levels and body shapes.
- 5.1.11 Efficiently and effectively combine balance, weight transfer, and locomotor movements into a rhythmic sequence with intentional changes of direction, speed, level and pathway, with or without objects.
- 5.1.12 Efficiently and effectively combine balance, weight transfer or roll, and locomotor movements into a sequence on equipment with changes of level and direction.
- 5.1.13 Efficiently and effectively jump off equipment with turns, shapes, and different directions in the air and land safely on both feet.

Performance Indicators = first number is grade level, second number is standard number, third is performance indicator number  
Greeley-Evans School District 6  
2008-2009



**Physical Education Standards  
Fifth Grade**

**Standard 2:**

***Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities. (NASPE, 2004)***

**Grades 3-5 Benchmark: As students are able to comprehend more complex concepts possessing an introductory tactical awareness and understanding basic anatomical and biomechanical principles as they apply to the performance of motor skills. Children are able to design games, dance and gymnastic routines that contain rules, skills, movement concepts and strategies. They are able to understand health related fitness concepts and apply technology to monitor and assess personal fitness.**

***Performance Indicators:***

- 5.2.1 Understand simple offensive and defensive strategies, used in small sided games.
- 5.2.2 Design a game that includes skills, strategies, and rules.
- 5.2.3 Compose a dance/gymnastic or jump rope routine that uses at least two skills in combination with space and effort concepts.
- 5.2.4 Evaluate and provide feedback about critical cues of fundamental motor skills in their own or others performance in dynamic situations accurately using movement vocabulary.
- 5.2.5 Recognize basic muscles and bones used in specific activities.

**Physical Education Standards  
Fifth Grade**

***Standard 3:***

***Participates regularly in physical activity. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students choose to participate in physical activity outside of physical education and are aware of physical activity opportunities available in the community. Students begin to recognize the relationship between physical activity and the quality of life.**

***Performance Indicators:***

- 5.3.1 Maintains a log/journal to document regular, moderate to vigorous physical activity (MVPA) outside of physical education class.
- 5.3.2 Use a variety of resources to guide physical activity choices.
- 5.3.3 Participates in physical activity to improve overall health and well being.

**Physical Education Standards  
Fifth Grade**

**Standard 4:**

***Achieves and maintains a health enhancing level of physical fitness.  
(NASPE, 2004)***

**Grades 3-5 Benchmark: Students are able to achieve and maintain recommended fitness levels (Fitnessgram healthy fitness zones) for each of the five health related fitness components (aerobic endurance, muscular strength and endurance, flexibility and body composition). With teacher assistance students are able to interpret the results of health related fitness testing (Fitnessgram). Students choose to participate in movement forms that support achieving health related fitness.**

***Performance Indicators:***

- 5.4.1 Differentiate between muscular fitness, aerobic fitness, and flexibility.
- 5.4.2 Participate in a variety of self-directed physical activities for the purpose of improving health related fitness.
- 5.4.3 Understand the FITT (frequency, intensity, time, type) principle and apply it to a personal fitness plan.
- 5.4.4 Achieve and maintain HFZ in each of the five health related fitness components.
- 5.4.5 Interpret *Fitnessgram* results and create a basic personal fitness plan.
- 5.4.6 Monitor and assess physical activity using current technology (e.g., heart rate monitors, pedometers, and digital cameras).

**Physical Education Standards  
Fifth Grade**

**Standard 5:**

***Exhibits responsible personal and social behavior that respects self and others in physical activity settings. (NASPE, 2004)***

**Grades 3-5 Benchmark: Children are in control of and accountable for their own actions while working independently and with others in a variety of physical activity settings. Students understand and follow safe practices in all physical activity settings. Children display appropriate communication and cooperation skills necessary to succeed in small group activities. Students increasingly recognize and respect the strengths and differences in others.**

***Performance Indicators:***

- 5.5.1 Participates in a manner that respects self and others by safely working on task without direct teacher supervision.
- 5.5.2 Accepts consequences for his/her actions/behavior by acknowledging their personal responsibility without prompting.
- 5.5.3 Work productively by respecting and acknowledging the opinions and ideas of others in a small group to accomplish a task.
- 5.5.4 Resolve issues and conflicts peacefully and independently without teacher prompting.
- 5.5.5 Acknowledge that all individuals benefit the group through inclusion of persons without regard to personal differences (e.g., ethnicity, gender, disabilities).
- 5.5.6 Demonstrate respect and caring for others through actions and nonverbal and verbal communication.

**Physical Education Standards  
Fifth Grade**

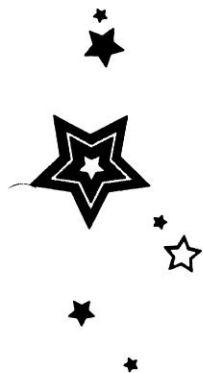
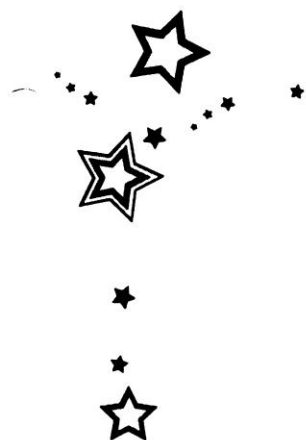
**Standard 6:**

***Values physical activity for health enjoyment, challenge, self expression and/or social interaction. (NASPE, 2004)***

**Grades 3-5 Benchmark: Students understand that effort and practice lead to improvement, improvement leads to competence, and competence to enjoyment. They choose activities based on enjoyment and the goal sought. Students willingly try new things and engage in activity with persons similar and different to self. They celebrate the successes of self and others.**

***Performance Indicators:***

- 5.6.1 Take initiative by engaging in physical activity independently and/or in group settings outside of physical education.
- 5.6.2 Recognize that purposeful effort and practice lead to improved performance and increased enjoyment of an activity.
- 5.6.3 Value physical activity as evidenced by willingness to try new, personally challenging activities with perseverance.
- 5.6.4 Identify personal reasons and feelings about participation in physical activity.



# Glossary

## Elementary Physical Education Glossary

**Appropriate practices:** developmentally and instructionally relevant practices derived from both research and teaching experiences that maximize opportunities for learning and success for all children.

**Critical cues:** critical elements that help children understand how to perform a skill.

**Efficiently and effectively:** perform a skill using proper form and critical elements to reach the desired outcome.

**FITT principal:** principals of fitness training recommended for reducing health risks and improving health. (Frequency- Intensity- Time- Type)

**Game-like situations:** activities designed to teach the use of basic skills, combinations of skills and simple offensive and defensive strategies in a changing environment.

**Health-related fitness components:** Five components that make up health-related physical fitness for children. (Muscular strength and endurance, aerobic endurance, flexibility and body composition)

**Mature form:** consistent performance of a skill including all critical elements.

**MVPA:** Moderate to vigorous physical activity

**Skill themes:** fundamental movements that form the foundation for success in sports and physical activity for life.

**Skill related fitness:** Fitness components associated with athletic performance. (agility, balance, coordination, power, speed and endurance)

**Small-sided game:** small-group games designed with modified rules and limited space to refine skills and provide learning cues.

## Appendix B

### Curriculum Toolkit Project Timeline

[illegible]

## Appendix C

### Internal Review Board

**University of Northern Colorado  
INSTITUTIONAL REVIEW BOARD**



**Application for Expedited or Full Review Guidelines**

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Provide the application narrative description, sections I–IV, in the order given below. Use as many pages as necessary; however, strive to be concise and to avoid unnecessary jargon. Attach documentation as required in Section V.

**Section I – Statement of Problem / Research Question**

The individual teacher is the most important player in any reform effort (Hall & Hord, 2001). Yet, few examples of change initiatives have been published within physical education literature. What has been studied focuses primarily on documenting the working conditions of physical educators and calls for curricular change with little attention to how to produce that change (Rink & Mitchell, 2002). Overall, research on physical education tends to describe how teachers have been marginalized and constrained by their contexts, portrayed as powerless, and faced with barriers and conditions unfavorable for creating positive change (Rovegno & Bandhauer, 1997a).

Despite the many barriers to change, professional development projects have provided considerable evidence that fundamental change is possible. While top-down change efforts have been criticized, attempts at doing this kind of large-scale change have shown promising results (e.g., Rink & Mitchell, 2002; Rink & Williams, 2003; Wirszyła, 2002). Careful examination of the factors supporting bottom-up change by physical education teachers have also been examined (Cothran, 2001; Cothran & Ennis, 2001; Pope & O’Sullivan, 1998; Rovegno & Bandhauer, 1997a; Rovegno & Bandhauer, 1997b; Ward, Doutsis, & Evans, 1999). In a recent physical education change effort in an urban context, Ward and O’Sullivan (2006) describe a project which had considerable positive effects on participants’ beliefs and practices as a result of their engagement within a community of practice. Norms of school culture, teacher psychological dispositions (Rovegno & Bandhauer, 1997a; Rovegno & Bandhauer, 1997b), informal opportunities to learn with and from other teachers (Armour & Yelling, 2007), as well as shared vision and decision making (Dyson & O’Sullivan, 1998) have also been shown to contribute to substantive teacher change.

The purpose of the proposed study is to examine the implementation of a new elementary physical education curriculum in one school district. Specific research questions guiding the study are: a) What factors contributed to effective curriculum implementation and professional growth on behalf of the teacher involved?, and b) What is the reality of implementing a new curriculum?

This study extends the array of contexts studied from an educational change perspective by identifying conditions necessary to promote positive district-wide curriculum change. The curriculum revision initiative examined in this study will be undertaken by one teacher working in a typical elementary environment for this particular district. Results, therefore, will provide a rich picture of how this teacher approached her

work and the way she felt about the value and purpose of the physical education curriculum.

## Section II – Method

Provide the reviewers with the necessary information concerning how participants are to be recruited and treated, how confidentiality is to be protected, how the procedures are designed to safeguard participants against possible harm, and how the procedures are designed to address the research questions/hypotheses. The reviewers must be satisfied that the method is such that a clear benefit will derive from the study to offset any potential risks to participants.

### 1. Participants:

- a) The participant in the study will be an elementary physical education teacher in Greeley/Evans District 6. The participant is an adult.
- b) The participant is currently employed in Greeley/Evans District 6 and is a member of a curriculum revision team charged with revising the current elementary physical education curriculum for the district.
- c) Initial contact will be made with the teacher. The investigator will contact teacher initially during one of the curriculum committee meetings, email, or by phone.
- d) After an explanation of the project, the teacher will be asked if she wishes to participate. In addition the teacher will be given an opportunity to ask questions about her participation in the project.
- e) Confidentiality of the teacher will be protected in several ways. First, a pseudonym will be assigned to maximize confidentiality. Second, the investigator will take all necessary steps to maintain confidentiality of data. This includes coding data and choosing an appropriate and secure data storage mechanism which will prevent unauthorized access to the data. When the data is not in the hands of the principal investigator, the data will be secured and stored in a locked desk drawer located in the sport pedagogy research lab, and a key will only be in the hands of the principal investigator
- f) See attachment “A” for a copy of the informed consent form to be signed by the participant.
- g) All signed consent forms will be secured in a cabinet in the sport pedagogy lab for three years following data collection. At the end of three years the consent forms will be destroyed.
- h) In debriefing, the investigator will thank the teacher for her participation in the study. Preliminary data analysis will also be shared with the teacher describing the process of revising the curriculum from her feedback.

### 2. Procedure:

*Data collection will include: a) multiple interviews with the teacher, b) field notes from observations of the teacher implementation, and c) artifacts (i.e., curriculum documents, assessments, lesson plans, etc.). Teacher interviews will consist of 6 formal (approximately 1 hour each; see attachment B for interview protocol) and numerous informal interviews during the implementation. Interview topics will include the teacher’s background philosophy, and beliefs regarding curriculum; a detailed description of their*

*experiences, thoughts, feelings, concerns or interests relative to the project; factors identified as facilitating and inhibiting the process of change, and ways that the teacher changed or did not change her practices and beliefs. Descriptive field notes will be taken at each of the teaching sessions to describe the atmosphere, teacher and student actions/interactions, and the curriculum revision process. The data from classroom observations will be used to inform follow-up interview questions and to add a separate viewpoint with which to compare the records compiled from school artifacts (curriculum documents, assessments) and interviews.*

### 3. Proposed data analysis:

The participant's responses to individual interview questions will be analyzed using two distinct yet overlapping processes of analysis derived from a grounded theoretical perspective: open and axial coding (Corbin & Strauss, 2008). Open coding is the process of developing categories of concepts and themes derived from the data. In this study, open coding will be used to analyze interview transcripts by reviewing each multiple times and making notes about their possible meaning. Additionally, open coding will involve the process of conceptualizing, defining categories, and developing categories of results in terms of their properties and dimensions. Axial coding facilitates building connections within categories. In this phase, the goal will be to systematically develop and relate categories. This step includes the process of sorting out the relationships between concepts and subconcepts with the ultimate goal to discover the ways that categories relate to each other. Through the axial coding process, a researcher's goal is to answer questions of who, when, where, why, how, and with what consequences (Corbin & Strauss, 2008).

Qualitative research is often gauged by terms such as trustworthiness, accuracy, consistency and plausibility (Blumenfeld-Jones, 1995). Two techniques will be used to establish trustworthiness. First, a researcher journal will be kept to document personal reflections, methodological decisions, questions raised, theoretical propositions and evolving perceptions of the study. Second, triangulation—using multiple sources of data, and multiple methods (interviews, observation field notes, artifacts) to confirm the findings (Merriam, 1998) will be utilized. Data will be destroyed three years from completion of the study.

### Section III – Risks/Benefits and Costs/Compensation to Participants

Due to the qualitative nature of this study and the primary data collection techniques of interviews, the researcher believes that there are no foreseeable risks to the participant and that potential risks to the participant are no greater than those normally encountered when implementing new curriculum. However, due to observations associated with this study an increase in stress level may potentially be a risk for the teacher. Although possible participants have been engaged with similar teaching projects and are accustomed to frequent observations from faculty, students, and researchers. Additionally, no compensation for completing or not completing the study will be provided to the teacher. No deceptive practices will be employed. The teacher will engage normally in curriculum development activities including implementation in the classroom. The possible benefits are a better understanding of the process of curriculum

implementation and improved teaching both may positively impact physical education programs. Additionally, benefits to society from the information in this study is a better understanding of the curriculum revision process which may be helpful to other groups of teachers going through the same process.

#### Section IV – Grant Information

If the study is, or will be, funded by a grant, please explain fully. Explain any restrictions imposed by the grantor. Evidence of ethics training is required of all researchers working on federally funded research that involves human subjects. Complete the training module available at <http://cme.nci.nih.gov/> and submit the certificate provided with the tutorial as proof of completion with this application.

#### Section V – Documentation

- Attach a copy of the informed consent document, on UNC letterhead. See the [IRB Guidelines](#) for a thorough description of this document. You may request waiver or alteration of the consent document under some conditions described in the Guidelines. When surveys are conducted by phone or mail (including electronic), it is common to replace written informed consent with a cover letter or its oral equivalent, including much the same information normally contained in the informed consent document. Participation (e.g., return of survey) becomes the indicator of informed consent and this should be stipulated in the cover letter. In these cases, attach a copy of your cover letter on UNC letterhead or a copy of the script used for conveying information about your study in the case of phone interviews. If participants are minors, provide the informed consent document to be signed by parents and address the documentation of assent by the minors (see below for more information about assent of minors). If written assent is to be obtained from minors, provide a copy of this document.
- Please attach a copy of any surveys or standardized interview questions, if applicable, or if an interview is not standardized, the range of topics and likely questions. It is not necessary to include copies of published tests such as IQ or personality assessments; however, if you are using your own instrument(s), you should include a full copy of the measure.
- If the data represent records to be accessed, please describe the data, and any previous uses of these data, and exactly how the records are to be accessed. Attach written permission from the source of the data, if applicable.
- Present information regarding permission from site of data collection if external to UNC. This must include letters of permission signed by appropriate officials of cooperating institutions such as daycare centers, schools, hospitals, clinics and other universities. Permission letters should be on letterhead stationary.
- Provide copies of any flyers or advertisements used for recruiting participants and of the debriefing form, if applicable.
- If this is an application for Full Board Review, you must submit with it evidence of ethics training by completing the tutorial at <http://cme.nci.nih.gov/> and attaching proof of completion certificate with this application.

## Appendix D

### Informed Consent



**Informed Consent for Participation in Research  
University of Northern Colorado**

**Project Title:** The reality of implementing a new curriculum. A case study of one teacher's attempt.

Researcher: Matthew Madden, School of Sport and Exercise Science

Phone Numbers: (970) xxxxxxxx

Dear Elementary Physical Education Teacher:

My name is Matthew Madden and I am a graduate student at the University of Northern Colorado. I am conducting a research project to examine the process of implementing a district-wide physical education curriculum. Specifically, your perceptions and experiences of the curriculum will be explored. The information in this form is meant to help you decide whether or not you wish to take part. If you have questions at any time, please feel free to ask. You are being asked to participate in this research study because you are a member of the District 6 Elementary Physical Education Curriculum Development Committee.

Your participation will involve describing your perceptions and experiences of the curriculum implementation process in interviews. You will be asked to engaged in six separate interviews (approx. one-hour in length) focusing on your perceptions and experiences with the process. You will also be observed in the classroom multiple times in a five month period. There are no known risks to you from being involved in this research study. Your participation in this study is voluntary. The alternative to being in this research study is that you can choose not to participate. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. There will be no cost to you to be in this research study and you will not be paid to be in this research study.

The possible benefits of your participation is a better understanding of the process of curriculum implementation and how that may positively effect your own physical education program at your school. However, you may not get any benefit from being in this research study. The possible benefit to society from the information in this study is a better understanding of the curriculum revision process which may be helpful to other groups of teachers going through the same process.

Your welfare is a major concern. If you have a problem as a direct result of being in this study, you should immediately contact me and my information is listed at the end of this consent form. Reasonable steps will be taken to protect your privacy and the confidentiality of their study data. You will be given a pseudonym to protect your name

from being linked to the data collected. All data will be analyzed by the Principal Investigator, and data will be stored in a locked drawer when not in use. The only person who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person or agency required by law. The results from this study may be published in a journal and/or presented at a professional conference. Your name or identity will not be revealed. In order to keep this confidentiality, a code number will identify your name in this study. Documents that link your name with this code number will be kept separate and secured from the completed data forms.

If, having read the information on this form, you decide to consent to your involvement in this study, please sign and return this consent form to Matthew Madden. I truly appreciate your interest in this study.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Sponsored Programs and Academic Research Center, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1907

Signature of Participant:\_\_\_\_\_

Date:\_\_\_\_\_

Signature of investigator:\_\_\_\_\_

Date:\_\_\_\_\_

Investigator  
Matthew Madden  
970.xxxxxxxx

## Appendix E

### Data Analysis

### *Data Analysis*

An inductive approach was used to analyze these data. The teacher's responses to individual interview questions were analyzed using two distinct yet overlapping processes of analysis derived from a grounded theoretical perspective: open and axial coding (Corbin & Strauss, 2008). Initially, 75 concepts were identified and coded.

Following preliminary analysis the researcher narrowed down the codes two ways: First, words or phrases repeated were noted and, Second, Fullan's (2007) framework was utilized. The analysis led to combined codes and listed the following common themes:

*accountability, prior influences, career stage, changes to materials, changes to instruction, supporting factors, transfer of learning, student response, behavior, team teaching, PLC, and curriculum team.* Followed by placing codes into Initiation,

Implementation, and Beliefs (Fullan, 2007). As discussion occurred between the researcher and committee chairpersons, it was suggested to move away from the

framework and just represent the results as stories and themes. At that point the

researcher coded and attempted to write the results purely as a narrative construction.

Two things occurred: First, stories pertaining to event leading up to implementation

labeled *Context* were relevant and themed as *Implementation* were significant events

during the process were identified :

*First attempt: Categories and Subcategories were written as stories:*

#### *Context*

- Family influences
- Preservice training
- Induction Years (1-3)
- Supporting influences: Former Principal, Cooperating Teacher, University Members
- Curriculum Sub-Council
- Accountability

- Quest for Knowledge and Professional Learning
- Roped in

### *Implementation*

- Significant events
- Student Teachers
- First days of School
- Gymnastics
- Bosu-Fitness
- Climbing Wall
- Yoga
- Instructional Shift
- Assessment
- Planning
- PLC

Second, a representation of the teacher's perspectives were categorized into themes and included:

- Perspectives of Change: Planning, Assessment, Reflection, Instruction
- Support: Student teachers, University Faculty Members, PLC
- Mentoring: Student teachers, Researcher
- Transition to Beliefs
- Student Reaction
- Overwhelmed
- Team Teach

However, this preliminary organization of data left the researcher and committee chairpersons with lots of questions and other attempts of condensing categories. A lot of the writing was confusing and redundant. There were multiple sections that repeated the meaning of similar themes. When pushed to condense and "reduce for redundancy" specific stories were derived and combined

### *Stories & Themes, attempt 2*

#### *Context*

- Preservice-Induction Years-to years 5-6
- PEP Grant
- Student Teachers

*Implementation*

- The Meeting
- First Days of Implementation
- Significant Units
- Putting-it-all-together

*Teacher's Perceptions: Themes*

- Teaching Practices: Planning, Assessment, Reflection
- Instructional Approach: Sport Themes to Skill Themes
- Team Teaching
- PLC
- Reflection

At this point, the researcher again attempted to combine and label stories and themes to separate significance. The researcher then searched the best quotes and recorded actions to represent each section(s) using a coding matrix, for example:

<b><u>Support</u></b> (Student Teachers/ PLC)	
<b>Interview Info</b> (e.g., #1 p1; line 1-5)	<b>Evidence (finding, quote, etc.)</b>
#11 p 5 line 186-190	I think in the beginning we started off really well and maybe a couple of meetings in the middle really helped. Towards the end of the school year it was a little rough we started talking about other things. The first couple of meetings really focused on the curriculum and it would basically always get back to content. So we actually tackled gymnastics the first couple times and I shared some of the activities that I was doing with a lesson plan and some assessments.
#12 p 7 line 313-318	Student teachers help me with those changes because they have all these new ways to plan or that new ideas and I was like all try that I might as well I have a new teacher and it's a new curriculum so I feel comfortable with going through trial and error. So I'm not sure photographs comfortable or is open with change and I think I'd just would have for kind of stress myself out a little bit more in just eight of school unnecessarily until five or 6:00 and still not have the product.
<b><u>Student Response</u></b> (Behavior/ Transfer)	
<b>Interview Info</b> (e.g., #1 p1; line 1-5)	<b>Evidence (finding, quote, etc.)</b>
#6 p 5 line 151-158	I think the older ones struggled but the little ones did not. The

	<p>little guys are always saying do you want to play soccer or can we play soccer. I would be like well we are going to use the soccer balls but we have to practice some things but the older students still want to play the large games. I would not let them and try to put them into small sided games. But for some reason they still want to play the whole class games. I am not sure why and to be honest I do not remember what I did with the 4<sup>th</sup> and 5<sup>th</sup> grade class before this year (giggles). I think that I did a lot of skills and then one day for games.</p>
--	---

*Eventually, recoding story excerpts and specifically Teacher's Perceptions resulted in:*

*Stories and Themes, Attempt 3*

**Context**

- Preservice-Year 6
- Student Teachers
- PEP Grant

**Implementation**

- The Meeting
- First Days of Implementation
- Student Teacher's Units
- Significant Units
- Putting it all together

**Stephanie's Perceptions**

**Aspects of Change**

- Instructional Approach
- Teaching Skills: Planning, Assessment, Reflection
- Curriculum Knowledge
- Support: Planning, Assessment, Reflection
- Professional Learning Community
- Significant forms of support
- Student Response: Behavior, Skills Learned

## Appendix F

### Interview Guides

Curriculum Implementation Study Interview Protocol – 1st formal teacher interview

1. Describe what has happened with the curriculum implementation since the beginning of the school year.
  - a. What were successful events?
  - b. Stumbling blocks?
2. What advice would you give to a group of teachers who were about to take on a similar project – curriculum implementation?
  - a. What type of leadership is needed?
  - b. What is a realistic timeline to complete this work?
3. What type of support have you needed to be successful or not?
4. Describe the relationships of those involved in the process. How have these relationships developed/evolved and what roles have they played? success?
  - a. Student teachers
  - b. Researcher
5. How, if at all, have you changed during the process of implementation?
  - a. Your knowledge
  - b. Your teaching
  - c. Interactions with students
6. Describe your feelings/emotions when you realized your work was done (at least the first year)?
7. Is there anything else you would like to share?

Curriculum Implementation Study Interview Protocol – 2nd formal teacher interview

1. What knowledge about your teaching have you gained as a direct result of the process?
  - a. Curriculum knowledge
  - b. Content knowledge
  - c. Pedagogical knowledge
  
2. How did your previous teaching experience (prior to implementation) help you with the recent attempt of implementation?
  - a. Induction years (1-3)
  - b. Preservice training
  - c. Student teaching
  
3. How did students perceive your understanding of the new curriculum?
  - a. Knowledgeable
  - b. Confident
  - c. No change
  - d. Non confident
  
4. Is there anything else you would like to share?

Curriculum Implementation Study Interview Protocol – 3rd formal teacher interview

1. What knowledge about your teaching have you gained as a direct result of the process?
  - a. Curriculum knowledge
  - b. Content knowledge
  - c. Pedagogical knowledge
  
2. How did your previous teaching experience (prior to implementation) help you with the recent attempt of implementation?
  - a. Induction years (1-3)
  - b. Preservice training
  - c. Student teaching
  
3. How did students perceive your understanding of the new curriculum?
  - a. Knowledgeable
  - b. Confident
  - c. No change
  - d. Non confident
  
4. Is there anything else you would like to share?

Curriculum Implementation Study Interview Protocol – 4th formal teacher interview

1. What have you learned from the process of implementation?
2. How did being a part of the curriculum development team help with implementation?
  - a. Professional Socialization
  - b. Curriculum Knowledge
3. What types of support did you receive or not?
4. How did the PLC influence you during the process of implementation?
5. How did the student teachers involvement help or hinder process?
  - a. Mentor
  - b. Content
  - c. Planning
  - d. Understanding
6. Is there anything else you would like to share?

Curriculum Implementation Study Interview Protocol – 5th formal teacher interview

1. How do you feel you have changed during this process?
  - a. Personally
  - b. Professionally
  - c. Growth
  - d. Knowledge
2. Describe the support you received during this process?
  - a. Administrative
  - b. Colleagues
  - c. Students
  - d. PLC
  - e. Family/ Friends/ Community
3. Describe the barriers you received during the process?
  - a. Present
  - b. Predicted
4. How did the school culture influence the process?
5. In your own words how do you feel this process influenced student learning?
6. Describe how your first year experience will impact future decision-making?
7. Did you find the process rewarding for you and others involved?
  - a. Students

## Appendix G

### Five Finger Contract



## Appendix H

### Developmental Analysis of Content (DAC)

## Transferring Weight

Extension (Task)	Refinement (Cues)	Application (Challenges)
Transferring weight from feet to back	Tight muscles Round back	Squat down on your feet and round your back, transfer weight from feet to back then return to your feet. Try it again then do it to a standing position. Try standing first.
Transferring weight from feet to hands. 3 levels: Donkey kick –low level Horse kick- medium level Handstand- high level	Strong arms and shoulders Extend legs upward	Try to take weight off your feet just for a second. Travel the length of the mat using feet to hands alternating sides to land. Try to kick higher and stay on hands even longer. Add a ¼ turn to prevent falling
Transfer weight from feet to hands in a forward roll or forward shoulder roll.	Round your back Push with hands and feet so neck doesn't get stuck. Look for your belly button	As you put your hands down push with your feet to roll over looking for your belly button and rounding your back.
Transfer weight from feet to hands to feet in a backward Roll or shoulder roll.	Look for your belly button or stick gum between chin and chest. Push hard with your hands.	As you rock back on your shoulder's push with hands to roll backward across the mat.
Cartwheel Baby cartwheels Roundoffs	Stretch trunk and legs	Stand in a side stance, extend arms upward, step forward and transfer weight to hands, bring feet to the floor on the opposite side. Bring feet down one at a time or together.
Performing spring/step takeoffs in weight transfer on mats. Spring takeoff is a two foot takeoff, step takeoff is off of one foot.  Perform spring/step takeoffs onto a jump box or steps, or	Head and shoulders straight Bend knees when you land Arms extended upward.	Let's practice some spring takeoffs which are also used in basketball jump ball, or rebounds, along with a mount onto the beam or vault. See if you can land without moving. We call this a stuck landing in gymnastics. Stick

stacked mats.		<p>it!</p> <p>See if you can add a <math>\frac{1}{4}</math> turn, then a <math>\frac{1}{2}</math> turn, then a full turn.</p> <p>Let's practice step takeoffs. These are used in basketball layups, or cartwheels. See if you can add some turning.</p>
<p>Advanced Tasks-</p> <p>Transferring weight to hands and walking, transferring weight to hands and twisting, transferring weight to hands and making a bridge (front limber)</p>		

## Appendix I

### Interactive Journal

9/2/08

Matt's Thoughts:

- Mine Field - Nice job keeping back-to-the wall. Try not to give feedback to one group for long periods of time. Keep moving & spend 5-10 seconds w/each group.

9/2/08 Molina-2nd

I am Really noticing you walking the perimeter a lot more today. Keeping kids focused!

9/4/08 Gallegos

Good Directions for Bubbles -

Feidler- 1st Grade -

Good strategies talking to Alex & Gonzalo. We picked our battles gave them choices, they still didn't comply, that is when something more has to be done, because they are distracting or hurting others.

Good job bringing Torres 1st grade back to go over the line expectation.

- Choose students to check for understanding
- Adrian & Isiah are definitely a handful, but I think if we just keep doing what we did today we'll get through to them. SLOW & STEADY

Thanks for the enthusiasm - I got frustrated!  
I try not to yell but be firm - you can see I'm hard sometimes!

(Airedrill)

Stevenson - When you translated to Roligo the class was watching you for the signal to start. Some didn't hear you say start talking. Then they caught on.

I caught myself repeating signal directions - okay! Say Team Huddle (Super Eagle) once then reinforce - I struggle with that

Rolando,

- Excellent checking for understanding -
- Correct job holding students accountable
- Remember to walk the perimeter, even when giving directions. move to the area where student might be talking or not focused
- WOW - had emergency - you taught! :)
- Say "How to ask to use the restroom - 5th grade will catch you saying "Use"

- we have to remember the 2 Spanish only kids in Heil's class Remind me if I forget. - Rolando

8/19 - Remember to check for understanding before letting them loose in activity. I give them the info again "what I'm looking for" Then have them either share, raise their hand, or you choose 3 different students to share. (the one who will always know the answer, the one who may or may not know, the one who never knows)

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