Dedication

First, this research is dedicated to my family who made the doctoral adventure possible. To my son Greg, who was a constant support, editor, and computer guide. As a lawyer and high school English teacher, he continued reminding me of what learning is all about. He had the perspective of a constructivist high school teacher and the needs of high school students. To Lara: my daughter and worrier. She kept me grounded with her humor and encouragement. I could depend on her to keep life in perspective. She had the perspective of a working Mom. To her son and my grandson Destin: It is he who demonstrates on a daily basis what constructivist learning looks like and sounds like. As a student at Southwood Elementary for all six years, K-5, he continues to amaze me with his ability to think, solve problems, analyze, and apply his learning with the tools the teachers provided him. He watched the doctoral studies evolve as I tried to model the importance of lifelong learning.

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This research described and analyzed a single-site case study of an elementary school of 930 pupils, pre-kindergarten through grade five. The six and one-half-year longitudinal study examined teacher’s perceptions of both constructivism as an educational organizational change model and of developing a constructivist philosophy in an entire elementary school. The study examined the background and steps that evolved throughout the reform process.

Specific constructs most frequently appearing in the literature relating to developing an organization were studied: (a) philosophical foundations, (b) change, (c) perception, (d) leadership, (e) teachers as leaders and (f) affect. Research on teachers’ perspectives examined key elements relating to the role of teachers in developing and sustaining constructivist reform efforts. The triangulation process produced similar constructs.

First, teachers’ two-year reflections provided insight into how teams and individual teachers worked to improve and sustain the constructivist culture. Second, teachers voluntarily participated in focus groups centering on teachers’ perceptions and insights concerning creating a constructivist school. The last came from the
Emerging from the research, first, were three dimensions of leadership: (a) support of teachers, (b) teachers’ feeling appreciated, (c) providing a professional work environment; and next, six dimensions of teachers’ as leaders: (a) collaboration, (b) trust building and forming relationships, (c) asking for help and receiving it, (d) the value of understanding personality styles, (e) the value of a positive attitude, and (f) taking on leadership roles.

Implications follow:

1. Constructivism can be used as an educational organization change model to reform an entire elementary school and implement a constructivist philosophy and practices.

2. Teachers believe that standardized test scores can increase from teaching constructivistically.

3. A philosophical maintenance plan is necessary to continue the process.

4. It is crucial to recognize the importance of teachers’ perceptions in creating an organizational culture with constructivist educational practices.

5. Teachers must feel appreciated, valued and recognized, an affect dimension.

6. The role of Principal is pivotal. The principal must believe in, and model constructivism.
Chapter 1
Introduction

This case study described and analyzed a single-site case study of an elementary school of 930 pupils, pre-kindergarten through grade five. The six and one-half year longitudinal study examined teachers’ perceptions both of constructivism as an educational organizational change model and of developing a constructivist philosophy in an entire elementary school. The study examined the background and steps that evolved throughout the reform process.

There is limited research on utilizing constructivism as a school reform model, and on teachers’ perceptions on the development of the constructivist philosophy on an entire elementary school. The Principal-researcher identified specific constructs that most frequently appeared in the literature relating to more global topics in the development of an organization: (a) philosophical foundations, (b) change; (c) perception; (d) leadership; and (e) teachers as leaders.

The term constructivism is a complex term that is perceived in different ways by different authors. The basis of applying constructivism comes from the social constructivist perspective. The Principal-researcher presented a variety of views from the perspectives of well-known authors, philosophers, and researchers; and then applied that research within the context of an elementary school that became constructivist.

Authors seldom specifically identify the term “constructivist” as a way of
describing their beliefs relating to whole school reform. The exception occurred in the work of Shapiro (2000, 2003). His research provided the foundation upon which the Principal-researcher studied and detailed the process of creating an entire school and demonstrated the implementation of a constructivist philosophy in grades kindergarten through five.

Teachers’ perceptions of their part in the process of whole school reform relied on the same author’s work that included utilizing the Analysis of Dynamics of Change (Appendix 2), and discussed later in this chapter and included in Chapters 3, 4, and 5. Teachers’ commitment to school reform developed from thinking constructivistically about how to create a constructivist elementary school in pre-kindergarten through grade five.

The process of constructing meaning is a natural part of young children’s learning. Beliefs about how young children learn are documented in the work of earlier pioneers such as: Dewey, Montessori, Vygotsky, and Piaget. The Principal-researcher described through this research how an elementary school developed the model to demonstrate how constructivist learning began at the youngest school ages and continued throughout the elementary school experience. Contemporary authors and researchers placed the philosophy of the early pioneers in the context of student learning for the elementary age child. Their works are identified specifically throughout this research.

The fundamental application of the constructivist theory centered upon the view regarding how an individual learns. Each philosophical position provided a perspective, that when combined, included insight into how knowledge developed. The individual
learner brings to the learning environment a background of experiences including those that come from the person’s culture, beliefs, values, language, perceptions, prior experiences, motivation, and social interactions (Costa & Kallick, 2000; Lambert, 1995, 2003; Piaget, 1928; Phillips, 1995, 1997, 2000; Shapiro, Benjamin, & Hunt, 1995; Shapiro, 2000, 2003; von Glasersfeld, 1995, 1987, 2000; Vygotsky, 1978; Wilson & Daviss, 1994). Learners then combine what they already know, with new experiences, ideas, democratic opportunities for learning while working in groups, listening, reflecting, concluding, as they create new understanding. Continuous interaction, thinking, and drawing individual conclusions develop within the active process of meaning-making (Darling-Hammond 1997; Marlowe & Page, 1998; Spivey, 1997). The cycle continues, with each person constructing additional knowledge. Fosnot (1996), explained this concept as “knowing” and the next step in constructing meaning, “coming to know” (ix). Knowing comes generally with an environmental influence, and “coming to know” evolves when new information, generally with an academic influence, that becomes part of a learner’s knowledge base.

Students are becoming more sophisticated learners in the 21st century information age. They added new components for meaning-making when provided the opportunity to access technology through unlimited channels on television, the Internet, virtual worlds, and digital imaging (Barth, 1990, 2001; Caine & Caine 1991, 1999, 1997; Goodlad, 1984, 1994, 1996; Schlechty 2001; Shapiro, 2000, 2003).

Once students demonstrated their redeveloped tools for learning, and try out their ideas, a constructivist teacher helps children combine what they believe and know, as
they facilitate the way students search for patterns, raise questions, and construct their own models, concepts, and strategies (Fosnot, 1996, Lambert, Collay, Dietz, Kent, & Richert, 1997; Marlowe & Page, 1998). This occurs in an environment centered upon cooperative groups as communities of learners think, solve problems, and continue to create their own understanding (Gagnon & Collay, 2001; Johnson & Johnson, 1989; Marlowe & Page, 1998; Shapiro, 1995, 2003). Students provided a constructivist environment in which to learn, try out ideas and practices for themselves, see what works, then reflect and discuss if the idea didn’t work. These models for thinking that individuals construct in their minds are critical to understanding (Gardner, 1999).

The school leader becomes pivotal to the process. The first step in the complex process begins when the school leader and staff members understand and develop a personal belief system compatible with the constructivist philosophy. Hopefully, they become constructivist thinkers. Implementation evolves when all the stakeholders in the school become constructivist learners. The continuity occurs through continuous communication about the vision, goals, and expectations at every level of the organization (Caine & Caine, 1991, 1997; Daft & Lengel, 1998, 2000; DuFour, 1998; Harvey & Brown, 2000; Lambert, Collay, Dietz, Kent & Richert, 1996, 1997; Manz & Sims, 2001; Marlowe & Page, 1998; Schlechty, 2001; Shapiro, 2003).

Each teacher then provided consistency in every classroom, so that constructivist strategies are implemented throughout a child’s elementary school career and dominate learning for both teachers and students throughout the school (Lambert, Collay, Dietz, 1997; Fosnot, 1996; Gagnon & Collay, 2001; Shapiro, 2003, Wilson & Daviss, 1994).
The school leader provides staff members with a risk-free environment (Blase and Blase, 1998) in which to think, to solve problems, and to work together. Teachers and the school leader create what a constructivist environment should look and feel like. In this way staff members understand how the same environment and opportunities to construct learning should occur in all places in the school, for each child. A student-centered atmosphere exists in a constructivist environment (Adler, 1997; Barth, 2001; Darling-Hammond, 1997; Gardner, 1999; Kohn, 1998; Schlechty, 1990; Shapiro, 2000, 2003).

**Statement of the Problem**

1. School leaders are expected to lead reform without an understanding of how teachers are impacted (Sarason, 1996). Constructivism is a philosophical approach to teaching and learning and is a developmental process in which people construct their own knowledge.

2. Reform requires people to develop different organizational roles. Constructivism is a philosophical approach that is being used in the classroom and has the potential to be used in school reform (Shapiro, 2000, 2003).

3. There is limited research on utilizing constructivism as a school reform model and on teachers’ perceptions (Blase & Blase, 1998) on the development of the constructivist philosophy on an entire elementary school.

Schools face a daunting challenge. The roles of schools in the 21st century become increasingly more complex with each emerging issue: second-language learners;

President Bush and his brother, Florida Governor, Jeb Bush determined that all children across the nation will read before they complete third grade, as judged by a single performance on a standardized test. The stakes are high if students fail to perform according to a set criteria as determined by the state. The new slogan is: No Child Left Behind (Schnittger & Valentine, 2002).

States, and more recently, the national government, are creating pressure on schools to ignore prior research on best practices (Zemelman, Daniels & Hyde, 1998), and concentrate on specific skill-driven requirements. In interviews with selected principals in Orange County, Florida, ineffective strategies for helping children succeed, long abandoned, have been reinstated. Principals have changed course from innovative instruction to traditional strategies because of the pressure to increase test scores. Strongly held philosophical beliefs, based upon solid research that drove instruction and curriculum in past practices, are frequently abandoned, only to be replaced with programs and models that long ago proved ineffective (Isaacson, 2001). Two specific areas include tracking, where students are grouped by ability, skill-based instructional grouping where groups stay with each other for extended periods of time, and programs with scripted teachers manuals. In most cases, students move from their home room class to meet
with other students of like skill abilities, during a portion of the day.

Requirements created by the Florida Department of Education, in response to state legislation, require that any child, who cannot read at a third grade level, by third grade, and receives a Level 1, (the student “did not pass” the Florida Achievement Test”) must be retained one time, if they are identified as a special needs student, and two times if the child has not been identified as a special needs (an exceptional education) student. Second language students are no exception. Under these conditions, a student could stay in third grade for three years. Both Kohn (1999) and Ohanian (2001, 2003) are outspoken critics of retention, when based upon standardized tests as a measure of students’ ability to learn and subsequently to become successful citizens. Newspapers write almost daily about the controversy surrounding these issues (Schnittger & Valentine, 2002).

Purpose of the Study

The purpose of this six and one-half-year longitudinal study examined teachers’ perceptions both of constructivism as an educational organizational change model and of developing a constructivist philosophy in an entire elementary school. The study examined the background and steps that evolved throughout the reform process. Fundamental to the purpose of the study and teachers’ perceptions, is the ability to understand how a school develops a plan that can lead an entire school through the process of becoming constructivist.

This case study provided an in-depth look at the various issues and problem
solving components needed to realize the goal. First-hand experience of the teachers and Principal-researcher provided a real-world look into the workings of a large elementary school, over a six and one-half year time frame, as teachers, students, and Principal-researcher, became more constructivist in their practices and more committed in their beliefs.

Fundamental to the purpose of the study, and teachers’ perceptions, rests in the ability to understand how a school develops a strategy to plan and organize so the intended goal is reached. In the case of this research study it is necessary to examine a process, and the teachers’ and Principal’s roles, to ensure that the foundational philosophy grows and matures. The use of Shapiro’s (2003) model: The Analysis of Dynamics of Change became the vehicle that helped a school maintain a philosophical and theoretical base that is constructivist.

Research Questions

1. What are the perceptions of teachers about constructivism as an educational organizational change model?

2. What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?

Significance of the Study

This appears to be the first longitudinal case study of teachers’ perceptions of constructivism as an educational organizational change model, and their perceptions of
developing a constructivist philosophy for an entire elementary school.

The absence of authenticated research, with a specific focus on the research questions, required this study to focus on foundational and philosophical positions surrounding issues of constructivism. The Principal-researcher investigated the work of authors and researchers who described various components of constructivist practices within individual classrooms or subject areas.

By combining a constructivist philosophy, the challenges of meeting ever changing issues within schools, required a school leader to understand and develop a constructivist ideology, and create teachers as leaders, while remaining aware of the impact each issue had on the teacher. Recognizing and acknowledging the importance of teacher’s perceptions of the issues and decision making processes became a significant part of the process.

The debate continues about how to help our students prepare for their futures in the information age. Employers of the future require workers who solve problems, work in teams, express complex ideas in a compelling way, both orally and in writing, and think creatively. Teachers must prepare students for jobs that currently do not exist (Daggett, 2001). In a world that becomes smaller because of science and technology the traditional method of instructing students that was teacher-centered and fact-driven is often a result of teachers receiving their education in that environment. Teachers will teach the way they were taught (Brown & Moffett, 1999) unless a major intervention occurs in their teacher-training or school-based in-service.

In this knowledge-driven world, regardless how motivated and responsible a
person’s attitude may be toward work, their prospects for a rewarding life are severely limited if they cannot think for a living (National Board of Professional Standards, 2003). Teachers and students must, therefore, work in an environment that encourages the same strategies for thinking and problem solving that model constructivist learning (Shapiro, 2000, 2003).

One component of this study described the problem solving model utilized when engaging teachers in the opportunity to think constructivistically when creating a constructivist school. This was done with the use of the Analysis of the Dynamics of Change Model (Shapiro, 2003). The Analysis of the Dynamics of Change strategy (Shapiro, 2003) provided six steps for defining issues. Developing a plan is a constructivist approach to organizational change. The constructivist philosophy becomes internalized when teachers and students are provided the opportunity to experience the process in a variety of ways. Involving teachers in decision making on how to solve internal issues in the school was constructivist in nature.

Utilizing a specific model provided teachers with problem solving and decision making strategies through reflective thinking. The Principal-researcher was a member of the group, not the leader. Accepting teachers’ views on the issues and outcomes, without judgment, modeled the importance of placing teachers in a risk-free environment.

Limitations to the Study

This is a single-site case study where data were collected within one school. The ability to generalize these findings to any other elementary school becomes unrealistic.
under specific circumstances. For example, low performing schools are mandated to use specific learning programs, with detailed scripts for teachers to follow, that must be implemented according to state and local requirements. In those cases, where the school must focus upon a specific program, a process approach that is constructivist, required a very different set of instructional skills strategies and goals. Implementation of a constructivist philosophy is unrealistic, if the learning environment is rigidly imposed.

Generalizability cannot be assumed from this study because it is a study of one site. This is a qualitative study that presented an analysis of multiple issues when creating a philosophical goal in a school that became constructivist. As a case study, the Principal-researcher provided many perspectives within the study. There is a limitation that other educators may view the process as unique to the personalities involved and miss the reality and practical application of the case study.

The focus on philosophical foundations, change, perception, leadership, and teachers as leaders, became an area of emphasis. One component analyzed the perception of teachers in only one school, as they participated and worked through the process of creating a constructivist school.

The Principal-researcher is also the founding principal and may give the appearance of bias based upon a personal commitment to the school within the study. There is a concerted effort of the Principal-researcher to remain as objective as possible through the use of focus groups and teachers’ written reflections to validate the qualitative research. The Principal-researcher’s six and one-half years of journals provides supporting information while adding a broad perspective of the issues described
by teachers. However, complete objectivity in any study, including case studies, is all but impossible (Merriam, 1998).

Assumptions

There are two basic assumptions. First, the level of trust between the Principal-researcher and the teachers will yield honest responses to the written reflections and focus group interviews by the teachers. This is based upon the outspoken nature of the teachers who appeared to have no reservations about expressing their views (both positive and negative) in frequent discussions over the years with the Principal-researcher. Second, the analysis of all three sources of data: teachers’ reflections, focus group interviews, and the Principal-researcher’s journals, will provide a reliable perspective of issues, expectations, and outcomes in creating a constructivist school.

Definition of Terms

Analysis of the Dynamics of Change: a problem solving, decision making process used in a teacher-centered plan to create a constructivist environment. (Shapiro, 2003, and Appendix 2).

Concept-based integrated curriculum: concepts are foundational organizers for both integrated curriculum and single subjects, serving as a bridge between topics and
generalizations. This design is used to combine content areas in an integrated and
organized plan leading students to higher levels of thinking (Erickson, 1995, 1998, 2001).

Constructivism: an epistemology, a learning or meaning-making theory, that offers an
explanation of the nature of knowledge and how human beings learn. It maintains that
individuals create or construct new understandings through the connection of what they
already know and believe, together with new found learning, and draw their own
conclusions. Knowledge is acquired through interaction with the content and other
people instead of through memorization (Brooks & Brooks, 1993, 1999, 2000; Lambert,

National Board Certification (NBC): National Board Certification provides a certification
process for teachers who apply to participate in the rigorous process involving the
demonstration of numerous criteria and a written exam. Passing the exam provides
monetary and professional rewards.

Perception: Perception drives reality. Each person interprets events from a combination
of their past experiences, current understanding, and the present situation and
information. Since everyone’s situation is different, responses to the same information
will be unique to each individual. “Even with the most objective task, it is nearly
impossible to keep our subjective views from altering our perception of what really
exists” (Napier & Gershenfeld, 1999, p. 3).
School cultures: “complex webs of traditional and rituals that have been built up over times as teachers, students, parents, and administrators work together and deal with crises and accomplishments” (Deal & Peterson, 1999, p.7).

Traditional education: associated with practices that originated in the 1970's and 1980's that were generally teacher-centered; textbook driven; using fill-in-the-blank worksheets for a majority of the instruction (Kohn, 1999).

Tri-Partite Theory of Institutional Change and Succession states that: “institutions and organizations change in a definite, predictable sequence . . . institutions are dominated in succession by one of three orientations–Person, Plan, and Position” (Wilson, C.; Bayar, M.; Shapiro, A.; Schell, S.H., 1969).

Summary

This chapter introduced the research study by discussing the background of constructivism. An overview of the constructivist philosophy is necessary to understand the complexities surrounding the theory. The Principal-researcher described the need to understand views and beliefs of contemporary authors who explained aspects of a constructivist philosophy. The chapter then identified five constructs that dominated the process of operationalizing the constructivist term in relation to (a) understanding the constructivist philosophy, (b) the effect of change, (c) perception, (d) leadership, and
(e) teachers as leaders. The philosophy of social construction dominated the process in utilizing a constructivist model in creating a school that becomes constructivist.

There was limited current research on the reform of an entire school using a constructivist approach. The chapter therefore, focused on the belief systems of contemporary authors who have expounded about how people learn, and the application to the learning process, specifically associated with an elementary school that is constructivist. There was emphasis placed on the need to understand teachers’ perception of their role in constructivist school reform.

After the statement of the study’s purpose and the driving question, the significance of the study described the importance of providing students with the tools to think constructively. In summary, when teachers think, solve problems, and understand constructivist theory, they can provide the same instructional strategies necessary to guide students.

Organization of the Chapters

Chapter One contains an overview of the constructivist philosophy and the implications and motivation by the Principal-researcher for conducting the study. The problem in conducting the study rests in the lack of research on the subject of whole school constructivist reform and teachers’ perception of the impact on them. The purpose of the study, provided in the chapter, discusses the primary question: “What are the perceptions of teachers about constructivism as an educational organizational change model and on the development of a constructivist philosophy on an entire elementary
school?” The chapter also reviews the six areas of focus that relate to implementation of
the whole school reform: (a) constructivist philosophy, (b) change, (c) leadership, (d)
teachers’ perceptions, (e) developing teachers as leaders, and (f) affect. This chapter
mentioned the background of the study, to be fully discussed in Chapter 2. It describes
the unique nature of the investigation and analysis. Various terms used through the study
are explained. The statement of the problem expanded on issues facing schools when
dominated by political agendas and the impact of these agendas on low performing
schools.

Chapter Two provided a comprehensive review of literature surrounding the
concept of constructivist philosophy, theory, and practice. The chapter begins by
describing philosophers’ and researchers’ views of constructivism. The Principal-
researcher described the philosophical positions from the perspective of two historically
different groups of authors, identified as Generation One (earlier pioneers in the
constructivist movement), and Generation Two, (contemporary authors and researchers).
Both generations described their versions of how learning occurs. The Principal-
researcher then provided a review of the five areas of concentration within the study of
constructivism: (a) understanding the philosophical foundations; (b) the process of
change that occurs within an organization; (c) the components and practice of leadership
when implementing whole school constructivist reform; (d) the perceptions of teachers
when engaged in reform; and (e) the development of teachers as leaders within a school.

Chapter Three describes the methods used within the study to provide validation
for the assumptions. The demographics and overview of the school described the
components of the school that makes it a viable research site. The chapter described the
various data collection methods that provided a process for triangulation: teachers’ reflections over two years, 2001-2002 and 2002-2003, when responding to guiding questions; focus group interviews with groups of teachers, including those teachers who left the school to teach elsewhere and then returned, 2004, and journal writings by the Principal-researcher from 1987 through mid-2004. Chapter 3 focused on foundational issues that surrounded an entire school reform effort. It emphasized the role of the teacher and school leader as they worked with the Analysis of the Dynamics of Change Model.

Chapter Four described the analysis of the data. Triangulation occurred from three identified sources and the results reported. The data presented the common themes that emerged from those three data sources. Data analyzed from teacher reflections and focus group interviews from teachers, were reported. Analysis of the events and descriptions found commonalities and differences between the Principal-researcher’s journal entries and teachers’ perceptions. Common themes and identified sub-topics were reported. The data from teachers’ reflections used a coding system based upon categorized statements, common themes, and sub-topics that emerged. An analysis of the data described the generalizability, reliability, and validity of the study.

Chapter Five provided a summary of findings, conclusions, implications, and recommendations for further research and policy, based upon the findings from the data. From the findings, there emerged issues that are common to both the teacher and the Principal-researcher, and perceptions that are different between the Principal-researcher and teachers.

A section of the Appendix provided the Southwood Story. It chronicles the
experiences, events, and conclusions described by the Principal-researcher. There is a conclusion at the end of each section (identified by each year in the evolution) entitled, “What I Learned.” The summary of “What I Learned” described the Principal-researcher’s perceptions of the various components of the year based upon the five original constructs: (a) Understanding the Constructivist philosophy, (b) Change, (c) Perceptions, (d) Leadership, and (e) Teachers as Leaders.
Chapter 2

Review of the Literature

Philosophers

The purpose of this section of the principal-researcher’s study examines the various philosophical underpinnings leading to current constructivist practices. The constructivist philosophy is a complex ideology with a long history. Four specific areas are examined: change; leadership; teachers’ perceptions of reform; and teachers as leaders. Examining the beliefs of philosophers and researchers, about how people learn, teachers teach, and the process used in a constructivist reform model, becomes foundational to the study of implementing a constructivist philosophy in an elementary school.

The Principal-researcher examined the works of earlier researchers and authors, such as Piaget, to more contemporary authors, such as Brooks and Brooks, (1993); Lambert (1995, 2003); Marlowe and Paige, (1998); Shapiro (2000, 2003); to understand how constructivist thinking came into being, and how it has evolved. One common element describes constructivist learning: learning must be an active experience (Phillips, 2000) that provides opportunities for children and teachers to make critical connections between what they know and what they are learning.

Contemporary thinking about constructivism, evolved from earlier philosophers
work that started with discussions about the point from which the origin in knowledge began, to the method used to acquire knowledge. Phillips (2000) quotes the words of Sellers (1991) who maintained that “the main distinction between the folk view and the scientific view is that only the latter were a reliable source of knowledge” (Phillips, 2000, p. 26).

The beginnings of constructivism, as a philosophical position, and the most influential earlier contributor to the field of constructivist beliefs, are often unclear. Kohn (1999) acknowledges Piaget’s work in the explorations of child development and who only began to use the word “constructivism” toward the end of his life. Phillips (2000) points to the work of von Glasersfeld as “being an important stimulus to contemporary research” (P. 12). Regardless to whom the roots of constructivism are credited, foundational understanding becomes important when understanding the many issues surrounding constructivist beliefs.

In an effort to differentiate among the various groups of philosophers, the Principal-researcher identified two groups each with the terms: Generation One and Generation Two, based upon general periods of time in history. Precursors to constructivist beliefs existed during a time when teachers worked with students in groups, challenging their thinking, asking questions, and solving problems; known often as the Socratic Method. Although not identified as constructivists, some of their methods of instruction became applicable in the next group’s efforts in high-level questioning and problem solving.
The actual implementation of the constructivist philosophy began with Generation One. This group could be described as the founding fathers of constructivism. Generation Two provided philosophical beliefs based upon the position that constructivism is a broad conceptual framework in philosophy and science. They refined the works of Generation One by developing beliefs applicable to all students and defining practical application for the teachers and students of the 21st Century in the Information Age. Generation One and Two become the emphasis for this section.

Several philosophers and a variety of additional descriptions about constructivism are prominently described in the literature and provide the foundation from which the primary constructivist beliefs evolved. Phillips (2000) refers to two distinct constructivist philosophies. First, the process of building knowledge over time can be considered constructivist in nature. They become human constructs with examples seen in areas such as politics, religion and economics and explained as social constructivism.

Social Constructivism is described by Phillips (2000).

...the origin of human knowledge, and its standing as knowledge, are to be explicated using sociological tools rather than epistemological ones. ...sociology is the discipline that studies, among other things, the influence of social forces and ideologies on human beliefs and actions (p. 6).

Phillips (2000) describes Psychological Constructivism as the second type of constructivism. This reflects a set of views about how teachers should teach and learners learn. Learning happens when learners actively construct their own meaning. In short, “knowledge is made, not acquired” (p. 7). In this way, no two people will demonstrate
the same understanding because each constructs knowledge based on his or her own background of experiences (Shapiro, 2003).

There are a variety of other positions that philosophers identified. Three of the more common are: empiricist; rationalist; and radical. A brief description may help to understand the different beliefs. Howe and Berve (2000) explain their view of empirical and rational constructivism.

...all knowledge is grounded in experience. The mind passively receives experience and is active in knowledge construction...only in the sense of ordering what is already given in experiences. In rationalism the mind contributes to the construction of knowledge at each level (p. 20).

Radical Constructivism comes from the belief that our only way of knowing evolves from our background of experiences. This belief did not recognize that knowledge also comes from an individual’s language, culture, beliefs, and ideas (Shapiro, 2003).

Rational Constructivism refers to the view that “the mind contributes to the construction of knowledge at each level (Howe and Berv, p. 20).

A middle position of constructivism: empiricism and rationalism. In empiricism, ‘all knowledge is grounded in experience. The mind passively receives experience and is active in knowledge construction...only in the sense of ordering what is already given in experience (Howe and Berv, p. 20). Michael Matthews (2000) describes the history of constructivism in a different way. He divided the beliefs into three major traditions: (a) educational constructivism
subdividing the work of Jean Piaget and Ernst von Glasersfeld; (b) social constructivism, beginning with Lev Vygotsky, the Russian parallel of Jean Piaget; (c) philosophical constructivism beginning with the work of Thomas Kuhn; and (d) sociological constructivism with its early roots in Edinburgh with the “Strong Program’s” research on the Sociology of Scientific Knowledge. Although constructivists differ in the specific details about the concept of learning, all appear to agree that learning must occur when students are active, not passive investigators of knowledge (Marlowe & Page, 1998).

17th and 18th Century philosophers-Generation One

Gimabattista Vico, one of the earlier constructivist philosophers mentioned in the early 1700's, created his slogan that “the human mind can know only what the mind has made.” Vico also said, “one only knows something if one can explain it” (Yager, 1991). He, more like Piaget than Kant, who will come later in this section, did not assume that space and time were categories of knowledge, but were human constructs (Shapiro, 2003; Steffe, 2000).

Kant, an eighteenth century German philosopher is considered with Piaget as “ancestors of modern psychological constructivism” (Phillips, 2000, p.8). Kant influenced Western psychology, sociology, and moral thought. He believed humans are born with the same fundamental and unchanging personal identity, called rationality. Western folk psychology describes Kant’s views as “sharp mind versus body, passion versus reason, and self versus society dualism; ...The whole task is to determine how a disembodied subject can come to know an embodied physical object with certainty versus
reason, and self versus society dualism;…” (Garrison, 1997, p. 543-554).

Psychological constructivists identified Immanuel Kant, who influenced Jean Piaget, espoused the concept that we create such things in the physical universe such as time and space based upon our own understanding and experiences (Bredo, 2000; Phillips, 2000; Spivey, 1997). Phillips (2000) continued by paraphrasing Kant’s ideas: “A conceptual scheme without sensory data is empty, sensory data without a conceptual scheme are blind” (p. 21). We live in a common world (Bredo, 2000). Kant was among the earlier philosophers who tried to reestablish an “absolute view of knowledge” (Rockmore, 2003).

Constructivism today can trace its roots to Kantian beliefs of the eighteenth century. Kant acknowledged that we create knowledge, rather than discover it (Wright, 2000). He saw knowledge created as a result of universal, unchanging categories. This became the foundational understanding of scientific knowledge. In addition, Kant surmised that the human mind must add to what is perceived by making an inference, but contended that because the inferring is a rational process rather than an opinion, the result is knowledge. Knowledge is made–constructed–through synthesis, which is performed by applying the categories of pure understanding to what is perceived. The mind achieves knowledge, and knowledge is this rational making sense of experience (Spivey, 1997).

Kant made a significant attempt to explain the value of physics on understanding. In this regard Paty (2003) analyzed Kant’s position. “The synthetic principles of pure understanding include those that deal essentially with the idea of magnitude and with the possibility to apply mathematics to phenomena” (p.121). The influence of Kant is
significant. The assumptions that constructivism, with the belief that humans create order from their experiences and knowledge is constructed not discovered are traced to him (Larochelle, Bednarz, & Garrison, 1998). However, Kant was not able to avoid the belief that somehow we must be able to discover how the real world really is (von Glasersfeld, 2002).

After the early decades, evolutionary thinking became rejected in favor of the analysis of systems. Logical system building began viewing the distinct “worlds.” This type of reasoning relates to Rene Descartes mathematical and deductive approach. He believed that there were multiple “worlds constructed using different assumptions rather than a single world based on a single set of assumptions” (von Glasersfeld p. 130).

Rene Descartes classic quote, “I think, therefore I am” (Garrison, 1997; Shapiro, 2003) came to mean that everything Descartes believed, he discarded unless they met his standard for his “light of reason” (Phillips, 2000, p. 8). Once he abandoned his beliefs he started over again to construct knowledge. Howe and Berv (2000) describe Descartes famous wax example to illustrate his rational constructivist belief:

How is it that a melting piece of wax can undergo changes in shape, color, and other sensible qualities and yet remain the same piece of wax? His answer is that the mind detects the non-experiential “substance” that makes the piece of wax the same thing through its sensible changes. The mind is always active in experience insofar as it contributes more than merely ordering what is
already given (p. 20).

During this time empiricists and rationalists faced different problems. It is difficult for an empiricist to make sense of separating experience from the way the mind works. Howe and Berv (2000) pose a question. If the mind does not interact with the experience, how could the experience organize itself “into chairs, the sky, the electrons, the persons..?” (p. 26). As a rationalist, Descartes suggested that reason and experience must be brought together.

When Rousseau wrote his exposition regarding the ideal school he laid the foundations for constructivism according to Marlow and Page (1998) and Shapiro, (2003). Rousseau identified the ways in which students formulate ideas. Namely, children use their senses and then make critical connections when they develop patterns and see relationships among the ideas they formed through interaction. Rousseau then surmised that students would adjust and reformulate these ideas as children participated in new and different experiences and interactions.

Another philosopher, Pestalozzi, although not as frequently noted in the more recent literature, had a similar belief. His premise was that when children observe and interact with their environment they develop an understanding and make critical connections, see the patterns, and the similar characteristics in what they see and experience. He believed that this was the way that all humans developed their knowledge. He maintained that the educational process should be based on the natural development of children and the sensory influences. Pestalozzi’s basic pedagogical belief was his insistence that children learn through their senses, rather than with words. He
emphasized the linking of curriculum to children’s experiences in their home and family lives (Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner, & Slack, 1995; Marlow & Page, 1998; Shapiro, 2003).

Jean Piaget is well known in educational literature. His “works have generated more interest and research than those of any other person in psychology in the last 60 years” (Wadsworth, 1996, p.6). It was Piaget who first used the term constructivism (Lambert, Collay, Dietz, Kent & Richert, 1996). His essays and descriptions are considered far ahead of his time--from 1941-1950 (von Glasersfeld, 2000). He established a theory of intellectual development that is fluid and thus changing. Piaget determined that there is a natural evolution in intellectual development with children, with predictable benchmarks and endpoints. Wadsworth (1996) adds that development or construction of knowledge is not completely automatic. Rates of development vary although the continuum of learning remains consistent for everyone.

Realizing the optimum level of a child’s cognitive, affective, and social development is important; however, it should not be the only goal. The child’s culture requires adaptation both developmentally and according to the expectations of the culture (Marlowe & Page, 1998). Wadsworth (1996) describes the Piagetian vision as constructivist since the learning of skill and content along with the child’s natural development are compatible.

Piaget’s beliefs added to those philosophers noted earlier. However, Piaget’s theory did not include the importance of social and cultural factors in intellectual development (Shapiro, 2000). For that, Wadsworth (1996) draws upon the work of Vygotsky as it relates to Piaget. Piaget was interested in how knowledge is formed or
constructed within the mind of the child. He studied the role of contradiction in learning.

It was Vygotsky who wrote about his interest in how social and cultural factors influence a child’s development, including studies of the effect of language on learning (Berk & Winsler, 1995; Fosnot, 1996; Gagnon & Collay, 2001; Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner, & Slack, 1995; Selley, 1999). The term Social Constructivism, most often attributed to Vygotsky, (Bredo, 2000) evolves from the belief that the basis of knowledge comes from social interaction of the child. This view is similar to the view that meaning is constructed from the culture to the child (Wadsworth, 1996). Vygotsky believed that learning is the primary focus of intellectual development, whereby Piaget believed that development is the primary focus. The basis for psychological theory of learning was developed both by Piaget and Vygotsky. The basis of the belief implies that humans have no “objective reality since we are constructing our version of it, while at the same time transforming it and ourselves” (Fosnot, 1996, p.23).

Vygotsky also developed a concept called “the zone of actual development and the zone of proximal development” (Berk & Winsler, 1995, p. 5). The zone of actual development occurs when children are able to solve problems independently. The zone of proximal development occurs when students can solve problems with assistance. This concept supports the notion that when others model knowledge and social interaction, students learn things they could not learn by themselves (Berk & Winsler, 1995; Wadsworth, 1996). An additional position of Vygotsky occurred in beliefs about how mathematical knowledge develops. He felt that mathematical ideas and theories come
from the exchange of beliefs and views among a collective group as well as an individual’s conclusions (Larochelle, Bednarz & Garrison, 1998).

Additional theories of how children learn came from Jerome Bruner (1971). He also differed from Piaget primarily in the area of language and social factors relating to cognitive development. He saw the relationship between language and success on tasks as correlational and not causal. Bruner saw language as a guide for thought when a child uses symbolic representations (Spivey, 1997; Fosnot, 1996). When students reflect on their own thinking and learning, we ask them to talk or write about their feelings, and ideas, the child then uses the symbolic system of writing to construct their experiences (Gagnon & Collay 2001).

Bruner also believed that discovery was the basis for problem solving (Brooks & Brooks, 1993, 2000; Larochelle, Bednarz, & Garrison, 1998). Learning becomes an active process. He coined the word, schemata, meaning that when students think and classify information, based upon their interest and “cognitive structure” or schemata, it provides a way to gain new information and new ideas (Marlowe & Page, 1998, p. 18). Mainstream educators believed the premise of Vygotsky and Bruner, that the construction of knowledge was an individual’s personal action with increasing attention to the importance that culture played in the learning process; the social construction of knowledge (Berk & Winsler, 1995; Fosnot, 1996; Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner & Slack, 1995; Larochelle, Bednarz, & Garrison, 1998; Shapiro, 2003). Vygotsky’s belief that learning is a social experience is based upon his social constructivist theory (Gagnon & Collay, 2001).
The term scaffolding appears in the literature from both Vygotsky (Berk & Winsler, 1995; Gagnon & Collay, 2000) and Bruner (Fosnot, 1996). Scaffolding means that a child receives assistance from an adult with “hints and props that allow him to begin a new climb, guiding the child in next steps before the child is capable of appreciating their significance on his own” (Fosnot, 1996, p. 21). A spiraling curriculum is another term for the same notion. When students build on previous understanding they become more sophisticated in what they know and believe (Selley, 1999, 2000).

John Dewey is among the best known philosophers. Dewey’s belief: When children learn they discover their own answers, create their own ideas, and develop their own understanding, learning becomes constructed, learning is deeper and ultimately provides students problem solving and critical thinking skills (Marlowe & Page, 1998).

Dewey proposed that children and teachers learn by building on previous knowledge, or what they already know and believe (Lambert, Collay, Dietz, Kent, & Richert, 1997; National Research Council, 2000; Vygotsky, 1978, Wadsworth, 1996). Dewey further proposed that for children to transfer knowledge they must integrate their learning, generally around a central theme and their own personal interest (Dewey, 1900; Fosnot, 1996; Wadsworth, 1996). Dewey’s beliefs were described as progressive (Lambert, Collay, Dietz, Kent, & Richert, 1997).

Dewey firmly believed that in order for students to experience transfer of knowledge to other arenas they must be actively involved in their learning (Phillips, 2000). The development of a project is one example of that type of learning. When projects create learning, fit students interests, develop motivation, scaffold children’s thinking to higher levels, that lead to more questions and inquiry over time, learning
occurs (Larochelle, Bednarz, & Garrison, 1998). Ultimately, when students come to have a clear understanding, they must create their own meaning (Marlowe & Page, 1998; Shapiro, 2000, 2003).

Dewey was a social constructivist. He did not believe that learning was a simple thing. It was not a matter of exchanging an old experience for a new one. It is a developmental issue where new learning is built on previous experiences (Fosnot, 1996; Gagnon & Collay, 2001; Larochell, Bednarz & Garrison, 1998; Steffe, 2000). In addition, Dewey wanted students to engage in interaction with other students and teachers in ways that provided collaboration (Dewey, 1938; Larochelle, Bendnarz & Garrison, 1998; Wadsworth, 1996).

George Herbert Mead is another well-known philosopher linked to the constructivist beliefs. He frequently associated with Dewey and was close personal friends. In the words of Jim Garrison, “so intermeshed was their influence on each other that it is often impossible to determine who originated what” (Larochelle, Bendnarz & Garrison, 1998, p. 43). Both Dewey and Mead felt that the embodied meanings are habits. Habits include those that perceive, recognize, imagine, and reason.

Dewey also worked with many students who became influential educators. Two well known doctoral students were Ella Flagg Young and Hilda Taba. Ella Flagg Young, worked hard to move from 19th to 20th century instruction as the first female superintendent of the Chicago Public Schools. She studied with Dewey at the University of Chicago and became interested in his philosophy. It was there, as she assisted Dewey
in his laboratory school, that Young became a leading advocate for a system of schooling that stressed Dewey’s beliefs. Young agreed that teachers should connect what students learn to their own world, engage in hands-on experiences, and that students should learn to be in charge of their own learning (Null, 2003).

When Young served both as a Chicago professor and a principal in Dewey’s laboratory school, she recruited Chicago teachers to study at the University and promote the ideas and practices that she and others developed at the laboratory school. In 1909, she accepted a position as superintendent of the Chicago schools (Null, 2003).

In that position Young practiced her belief that a democratic system was more effective than the top-down hierarchy that ruled the school system earlier. She was elected as the first woman president of the National Educational Association in 1910 and enacted the same principles with that organization. In whatever position, Young promoted her belief system acquired at the University of Chicago, that institutions should practice democratic principles. She also believed in the importance of student-centered learning (Null, 2003).

Another powerful woman educator, Hilda Taba, was later identified by John Dewey as one of the most brilliant students with whom he ever worked. Taba immigrated from Estonia in 1926. She entered Bryn Mawr College, completed her degree and began working on her doctorate, also with John Dewey. In the 1930's Taba was in the middle of the progressive education movement that was gaining strength at that time (Null, 2003).

Taba also believed in the importance of establishing democratic ideals and the need for democratic education. She began to call for teaching strategies that were
“dynamic in forms and processes” (Bernard-Powers, 1999, p. 192). She worked to develop educational practices that allowed students to meet their full potential and become effective democratic citizens. She expected teachers to become learners side-by-side with their students.

Thomas Kuhn determined that knowing is never final, that it is based upon the relative understanding at that moment in time and is always a work in progress (Rockmore, 2003). This changed the view of the scientific process completely. The history of science was then seen as a steady progression where theory is added to theory until the truth is found. Kuhn saw a series of revolutionary changes of the world-view of science as one period of scientific theory that had very little in common with the previous one. He postulated that perhaps science would never find a truth (Ehrencrona, 2002). Kuhn appears to make the critical connection between the theoretical basis of how knowledge is constructed and the position that makes application of the theory more workable. He believed that what is known depends on the period of time and the world at the time. Kuhn developed the notion that we build knowledge when adding information and understanding to our prior experiences (Rockmore, 2003).

Von Glasersfeld (2000) is identified in the literature as a Radical Constructivist. He based his study of constructivism from the work of Ceccata and Piaget. Von Glasersfeld identified the term, radical constructivist, as opposed to Piaget’s term constructivism. The added term of radical developed when Piaget’s constructivist term became widely discussed within the educational arena. Von Glasersfeld heard statements
that indicated that children don’t simply swallow all adult knowledge whole, they have
to construct it! As a result of von Glasersfeld added his own interpretation and described it as radical constructivism (von Glasersfeld, 1995). He did not intend for his radical approach to replace Piaget’s belief. He believed that knowledge begins with our experiences. This view is radical, since in its purist form means that our only way of knowing evolves from our background of experiences. As a result none of us will see things the same way. Shapiro (2003) points out the flaw in von Glasersfeld’s reasoning, because knowledge is based on several other variables, such as language, culture, beliefs, and values.

Paul Lewin quoted from Glasersfeld’s essay, ‘Learning as Constructive Activity,’ as a way to describe what it means to ‘know what one is doing and why it is right’?

Interpretation implies awareness of more than one possibility, deliberation, and rationally controlled choice...To do the right thing is not enough; to be competent one must also know what one is doing and why it is right (von Glasersfeld, 1987, p. 328).

Von Glasersfeld’s beliefs are adapted in mathematics education when combining the psychological constructivism of Glasersfeld and the notions of Piaget regarding assimilation and accommodation. The use of Piaget’s adaptational sense refers to the sensory-motor and conceptual operations that are effectively utilized in mathematics instruction (Cobb, 2000). Von Glasersfeld explained that Piaget’s discussions of children’s socialization in the school setting comprised two different mechanisms. One was the imitation of physical actions and behaviors, including speech, because of the
influence of others; the other is a result of mutually agreed upon actions that are a result of reflection and understanding within cooperative interaction with others. Piaget’s application of his constructivist views are parallel to von Glasersfeld’s beliefs (von Glasersfeld, 2000).

Von Glasersfeld summarized his radical constructivist position as it relates to the future. “...an effort to develop viable theoretical models in the areas of ethics and social interaction...we should take even more care to stress and repeat that we are constructing a model that should be tested in practice” (von Glasersfeld, 2000, p. 8).

Psychological and social constructivism are combined in the work by Cobb and Yackel (1996). They combined the psychological perspective of von Glasersfeld and involved analyzing individual students’ and the teacher’s interpretations and actions within cooperative groupings. The social perspective occurs within that interaction (Cobb, 2000).

American Marx Wartofsky, a Marxist-oriented philosopher, understood the connection between Marx and Hegel. Many philosophers continue their debate regarding the foundation of knowledge in such beliefs as presented by Wartofsky according to the writings of Dolling (2003). Wartofsky believed the human activity in the arts and science provides the foundations for knowledge. Wartofsky maintained that constructing and using artifacts generates knowledge. He continued by differentiating between artifacts as a tool, in its primary form, or as symbols in such representations as picture in art and models in science. One artifact, he maintained, is language (Dooling, 2003).

Dooling (2003) continues by expanding on the concept noted by Hans-Georg Gadamer who places interpretation and understanding as the foundation of all thought.
Therefore, language, according to Gadamer is the basis for all human activity. Wartofsky agrees with Gadamer’s proposition about language but adds that language, although an artifact, depends upon its formulation and use.

The notion that constructivist thinking had ramifications for the general population of students prompted the next generation of philosophers and researchers to emerge with ideas of ways to incorporate their beliefs into the practical application within schools.

19th through 21st Century Philosophers

Several prominent modern researchers expand constructivist beliefs that provide practical application for the classroom. Theories and strategies about how children learn combine one or more of the philosophies of earlier pioneers in the field. The learning process identified as constructivist is seen frequently in many countries around the world.

Authors and researchers who lead the field of constructivist theory, practical application and focus on constructivist practices such as: Brooks and Brooks (1993, 2000); Fosnot (1996); Lambert, Collay, Dietz, Kent, and Richert (1996); Lambert (2003); Marlowe and Page (1998) discuss application into individual classrooms. Only Shapiro, (2003) describes how effective instructional practices and constructivist application merge.

Constructivist influence appears especially strong in literature that relates to the field of science. Gunstone (2000) a professor of science and technology at Monash University in Cayton, Victoria, Australia, identified three research groups that described the nature of the constructivism. These groups include the University of Waikato (New
Zealand), University of Leeds (England), and Monash University (Australia) in the context of how each of the research programs identified areas of difference, perspectives, and context that relate to science education. Richard White of the Monash Group, identified the primary statement that guides constructivist science education researchers, “individuals construct their own understanding based upon what the learner already knows and believes” (Gunstone, 2000, p. 273). Other eminent researchers in the field of science education identified by Gunstone (2000) include Hans Neidderer and his group from the University of Bremen; Joseph Novak of Cornell; David Treagust of Curtin University of Technology (Australia); Lillian McDermott of the University of Washington (Gunstone, 2000).

The influence of the constructivist philosophy is evident in the work of several curriculum designers: Erickson (1995, 1998, 2001); Hayes-Jacobs (1998); Shapiro, Benjamin and Hunt (1995); Wiggins and McTighe (1998). Each researcher, author, and well-known consultant in specific areas of educational practices, demonstrate a constructivist belief and operationalize the philosophy of eminent scholars noted earlier. For example, cooperative grouping is most often described in the work of Johnson and Johnson (1989). Brain-compatible studies and subsequent implementation developed from the work of Fogarty, (1997); Caine and Caine, (1991, 1997); Caine, Caine and Crowell (1999); National Research Council (2000).

Brain research examines various learning styles and environmental experiences of students and provides teachers an understanding of the importance of utilizing each student’s prior experiences as a basis for identifying instructional strategies. Authors
discuss compatible topics important to classroom instruction:


   Constructivist classrooms also demonstrate a democratic community. Strategies for developing such a democratic environment are found in the work of Apple and Beane, (1999). In that sense, constructivist teachers encourage students to complete tasks and projects by working together toward a common goal according to Blais (1998); Brooks and Brooks, (1993); Clough and Clark (1999); Crawford and Witte (1994); Johnson and Johnson (1989); Rita (1998); Gadanidis, (1994); Phillips, (1995). Problem-based learning is described by Brooks and Brooks (1999); Fogerty (1970); Wolfe (2001); Wheatley (1991).

   The Analysis of the Dynamics of Change Model provides a vehicle to assess a school culture, diagnose and analyze predominate issues, determine issues, look for relevant themes, and determine a plan. In the process, teachers’ perceptions of ways to solve problems, participate in decision making, and develop ownership in the solution.

   became fundamental to the constructivist process.
Teachers’ perceptions of constructivism as an organizational change model became operationalized through the process illustrated in Appendix 2 and described in Shapiro (2003).

Summary

Each of the constructivist philosophers provided the foundation upon which researchers built their beliefs reflected in current educational practices. Instructional teaching strategies, curriculum and assessment design currently used in modern schools demonstrate many of the constructivist beliefs. Students should learn in environments that promote: higher-order thinking; solving problems through hands-on experiences; working in cooperative groups; self-assessment; empowering learners; and building on individual strengths.

Utilizing a process that defined the philosophical position of the school provided a point of reference from which each teacher and the Principal could refer. Creating a constructivist school required identifying each of the components arising from the philosophical positions of previous researchers and identified earlier in this chapter. It then became necessary to incorporate identified state and national standards into the philosophy of the school. The connection between the constructivist philosophy and the implementation if a constructivist belief system for an entire school became part of the organizational process. Mattews (2000) founding editor of the journal of Science and Education,
comments that although constructivism began as a theory of learning, it has evolved now
into a theory of teaching, education, personal scientific knowledge. It is also a theory of
learning and administrative leadership (Shapiro, 2002, 2003). “Constructivism has
become education’s version of a grand unified theory” (Mattews, p. 161).
Change

This section of the literature review describes the many issues that develop during the evolution of change in an organization. Specifically, the principal-researcher identified those authors whose works explain the complexity of change within an educational setting. Change, and its ultimate effect on a school staff, becomes complicated due to many variables that are often unpredictable. The question: What obstacles, assumptions, and outcomes develop when change occurs?

The process of change becomes particularly confusing when identifying the many terms used by authors. Researchers interpret change in different ways. Several explanations surrounding the definitions of change are presented including: reform, renewal, restructuring and reculturing. Chaos, challenges, complications, and school cultures are associated with the change process and this section discusses the accompanying effects and issues with each. This section concludes by addressing the issue of utilizing a constructivist approach in the change is a process.

What is meant by change?

Various authors describe change with terminology that delineates various types of change. Fullan (1999) emphasizes the paradox that exists when there is a need to engage in discourse with new and different descriptors and ideas; ideas that we may not agree with, “in order to arrive at cohesive integration and consistency” (p. 67). Confusion also exists between the terms school-based reform and systemic reform (Shield and Knapp, 1997).

An example of the confusion that exists when describing change as reform is found by examining the results of a five-year study of the *Coalition of Essential Schools* (Muncey & McQuillan, 1993). They identified seven fundamental issues that develop when anticipating barriers associated with change.

1. In most of the schools there was not a consensus that fundamental changes in school structure of teaching practices needed to occur.

2. The changes that occurred or were considered when a school joined the Coalition forced the issue of what constituted the school's philosophy and revealed differences in faculty member’s perceptions of their jobs, of the school's mission, and of the best ways to educate students.

3. The usual starting points for reform were principles that individual teachers could attempt to apply with little disruption to the school as a whole.

4. At most schools, a core of faculty members became active in their school's reform, but their efforts often ended up dividing the faculty.

5. Most Coalition supporters were naive about the degree to which school reform could be affected by focusing on academic concerns and about issues of
power and policies within their schools.

6. The divisions created within schools as a result of Coalition membership restricted communication among the faculty, and responses to changes were often based on hearsay.

7. Schools assumed that once the faculty "accepted" a reform program there was little need for further reflection on this decision (pp. 486-489).

Reform prescribes to a large group of schools and classrooms. The impact is indirect on the classroom teachers’ experiences with children. Rather than look back over past practices it is more important to evaluate accomplishments and replace the concept of accountability with the concept of responsibility. The charge of responsibility implies providing the most nurturing learning environment possible for teachers and students.

Until recently, a constructivist approach toward student learning and teacher instruction was rarely identified as a viable option for a school philosophy. Teachers were trained to implement methods that were rooted in strategies that began decades earlier. The traditional instructional delivery model contained isolated skill, drill, and content material delivered by a specialized teacher, within a rigid time frame (Adler, 1977; Daggett, 2001; Darling-Hammond, 1997; Goodlad, 1994; Schlechty, 2001). Bells drove the assembly line method of teaching (Daggett, 2001; Shapiro, 2000). This model no longer prepares our students to become productive citizens in the 21st Century information age.

“Our education system is still generally driven by the acquisition of
knowledge….Meanwhile, the ‘real world’ is increasingly calling for workers with the
ability to apply knowledge….Educators will be challenged to apply the growing body of
research on how people learn and how successful schools have changed the way they
teach students. Putting this research into practice is vital to ensuring that all students are
able to reach their potential” (Daggett, 2001, p.5). People are now finding out that quid
pro quo is no longer valid. Today change may very well be the norm (Greenleaf, 1997).

The real meaning of change becomes distorted because of the difference between
the intention and the actual implementation. The articulation of the goal might appear
very clear, yet become very different from how the goal is interpreted and carried out.
Solutions must evolve from those who must carry out the intent of the change. It must be
“shared meaning” (Fullan, 1991, p.5).

The difference in terminology and the implications of those differences are
significant. Several authors criticize reform initiatives and its effect on the change
process. According to the literature, reference to reform efforts refer more to several
schools, districts, or states, and rarely refer to an individual school (Pogrow, 1996).

If change occurs, it must happen for all the right reasons in all the right ways.
Success of any change comes in giving the power to plan, develop, and implement the
change to those who are responsible for making the change work (Wilson and Daviss,
1994). Smith (2001) identifies four specific areas that would justify a significant change
in a school.

1. If the change is substantial. That is, is the change going to impact the
   school, alter what and how teachers teach, provide ownership on the part of the

stakeholders, and identify specific outcomes. Smith refers to Stanford University historian Larry Cuban who labeled substantial change as a "second order" change (Smith, 2001). Second-order change involves a "shift in values, beliefs, and practices" (p.30).

2. How substantial is the change? When change occurs in several dimensions such as instruction, organization, governance, and accountability then the change is substantial.

3. What is the focus of the change? The focus must center around how teachers teach, students learn and how both engage in the growth process of learning.

4. How is change measured? What outcomes are measured? What are the expected results when change occurs? (p. 32).

Smith (2001) provides four dimensions to consider when deciding whether or not a significant change is necessary for a school. Is it substantial, systemic, student-centered, and solution-oriented? Sarason (1996) asks the question regarding the depth and breadth of change. He maintains that for change to be effective it must be both deep and broad. According to Smith (2001) when change is deep and broad it will involve more than one teacher doing exceptional things in the classroom; it will involve many classrooms and affect instruction, organization, governance, and accountability.

Before anyone can discuss how and why a school should change (Sarason, 1996; Wilson & Daviss, 1994) makes it clear that first educators must pry deeply into their own background of experiences in the school setting, then, combine those belief systems with
the culture of the school before any change can be clearly articulated. In the initial stages, the reality of teacher behavior exhibits the need to make sure that the teacher's needs and concerns are addressed first (Shapiro, 2000). Teachers want to know exactly how the change will affect them and how much extra work will be required. This “need precedes the commitment to any specific goals and advantages that may exist” (Fullan, 1991, p. 35).

Systemic Reform

System thinking emphasizes the complexities and complications of issues that, “affects wholes rather than parts, at patterns of change rather than static snapshots.” (Senge, 1990, p.68). Senge describes systems thinkers as those who stay focused on the big picture with the underlying belief that with “systemic patterns we can solve problems effectively and develop a self-renewing learning organization that can cope with a changing environment” (pp. 42-54).

Historical perspective of reform is gained from the work of Pogrow (1996). He describes the many reforms that ran from the mid-1960's to the mid-1970's that did not survive; open space, individualization, and community-based education as examples. Educational reform historically fails to survive and become institutionalized.

Soder (1999) makes the distinction by contending that when examining major state and federal reforms there appear little recognition of a given call or other social issues. He maintains that the status quo of the reform movements pay little attention to issues such as social injustice, racism, and sexism. He adds that the language of reform
carries with it the “connotations of things gone wrong that need to be corrected. It says nothing about the nature of education, the self, or the human community” (p.574). Slavin (2001) adds that the primary strategy discussed when the issues of standards, assessments, accountability and governance are raised becomes a systemic reform. The requirements are developed either at the national, state or district level.

Clark and Astuto (1994) express concern when reform means the same as the harshness of bureaucracy, control, competition and intervention. Then results become that of “distrust and inspection” (p. 520). There are two assumptions made about teachers in the workplace when initiating reform. The organization must decide which of the two opposing assumptions will determine the workplace environment. There are two opposing assumptions; “people are the means of production within an organization, or people are the initiators of action and the shapers of a working environment that fosters individual and collective achievement” (p. 519).

The price of school reform according to Soder (1999) appears to be “increased teacher and student anxiety” (p. 573). Although Pogrow (1996) describes change as reform, the issues are consistent with that of overall. He describes both the myths and realities as he reviews why educational reforms fail. Pogrow’s myths state that you can change instruction through advocacy, in-service, and training. He maintains that a new philosophy for education precedes a newly coined phrase. Articles are written for advocating the new philosophy under the assumption that the identified research actually reflects the strength of the technique proposed. Hindsight shows that the research is never very convincing and the reform fades away because it lacks the solid application
needed for successful implementation. The difference between educational reform and renewal is defined by Sirotnik (1999). He believes that reform tends to be politically motivated, trendy, heavily accountable, and short-lived. Reform requires accountability.

A more conservative view is taken by Wagner, Ward, and Dianda, (1990). He used yet another descriptor for change. They believed that schools need “reinventing.” (p.147). They conceded that the idea of federal reform and the cookies cutter approach will not work, such as those described earlier in Slavin’s work. They do believe that in order for school reform to work, it would be necessary to conduct a total “systemic change” (p. 149)

According to Wilson and Daviss (1994) reform has to show results right away. Reformers believe that in order to salvage our declining schools, sweeping changes must occur immediately. There is no Magic Bullet (p. 130). It takes decades of complex external and internal factors to accumulate most issues within a school. Each factor requires thorough investigation.

In the Abbott v. Burke funding-equity case the New Jersey Supreme Court required low performing schools with the highest poverty rate to select from a group of comprehensive models. Success for All became one of nine specified options (Slavin, 2001). In this model every aspect of the program: assessment; curriculum; instruction; parent involvement, and professional development provide a script from which the teachers cannot deviate. (Brown & Moffitt, 1999) disagree that this approach works. They make significant arguments to defend how “one size cannot fit all” (p. 54).

Renewal involves individual and organizational change. It is about nurturing the
lives of educators who work to improve their practice. Wilson and Daviss (1994) believe that if schools will fashion a process that allows educators to refine, develop, and integrate the new paradigm, then a renewed educational system of effectiveness, efficiency and quality is possible.

Restructuring and Reculturing

Fullan maintains that to reculture is to restructure (1993). The results of a qualitative study by Wonycott-Kytle and Bogotch (1997) identified four major components of the reculturing processes: “(a) reflecting on and questioning past and present practice; (b) comprehensive, continuous, and purposeful development activities; (c) reconfiguring roles toward collaboration, and; (d) seeing rewards and incentives” (p. 133). These points are grounded in the premise that the prospects for successful change depend on the extent to which the participants in school reform efforts examine their work culture. Findings by Prestine and McGreal (1997) caution researchers to question the assumption that there is a relationship between reculturing and achievement in student learning.

Chaos

In the literature there is frequent reference to change and chaos as if they were axiomatic. “The inherent unpredictability in the behavior of a system,” defined in Webster’s New American Dictionary, helps clarify the notion that chaos is a natural outgrowth of change. Over the years several authors addressed the relationship between

Chaos rests somewhere between too much structure and not enough structure. Learning occurs from chaos, “combined with the complexity and evolutionary theories,” (Fullan, 1999, p.ix). It is necessary to provide a balance between too much and too little structure. We need specific strategies to learn how to live and learn on the creative edge of chaos (Fullan, 1999).

Brown and Moffett (1999) also describe the change process as one of chaos and complexity. They explain the phase, “following innocence lost” (p. 59) as the time when we see that the traditional approach to making decisions no longer is adequate. The expectations placed on schools reflect the complicated society in which we live. The good news, according to Garmston and Wellman (1995) is that change and transformation is a natural outgrowth of chaos and complexity. "They are part of the same system and exist simultaneously." (p. 6).

Hargreaves and Fullan (1998) describe the factors that create chaos and complexity for educators.

1. Instant access to information and heightened speed of decision-making that have been created by the new technologies.

2. The increased speed of information flow and decision making. Modern technology compresses time and space.

3. Even the knowledge bases that guide our educational responses to complexity are unstable. Knowledge about classroom learning, effective leadership or planned change, for example, is constantly being challenged.
4. Greater diversities of culture, language and religion in our student populations Are throwing traditional educational goals into question and making consensus difficult to achieve?

5. Outside pressures and demands on teachers are not only increasing, they are also contradictory. ...cultural diversity is leading policy makers to embrace multiple intelligences and varied learning styles, while parents and some employers' groups agitating for "quality" education want greater standardization (pp. 20-21).

The Chaos Theory noted by Wilson & Daviss (1994) and Sarason (1996) and the parallel, Complexity Theory of Fullan (1999) appears to capture the understated components that make up a school. Fullan (1999) describes his Complexity or Chaos Theory as “those creative solutions that develop when interaction occurs from conditions of uncertainty, chaos and diversity” (p.4). Living in Fullan’s chaos requires forming relationships with people who we don’t understand or may not like. He stresses the importance of working through the discomfort of each other’s presence, learning from the lack of continuous harmony and developing more complex agreements and capabilities within the turmoil.

Being on the edge of chaos means that structure and open-endedness coexist. It does not mean lack of any structure when no learning occurs. The structure consists of a guidance of moral purpose, a few key priorities, focus on knowledge and data generated from shared problem solving and assessment of results. Fullan (1999) continues by
pointing out that effective organizations that “trust the process” embedded in his Complexity or Chaos Theory, outperform all other organizations. He states that “an effective organization does ‘trust the processes completely. They develop a plan that does not leave their work subject to chance.” (p.24). Fullan expands on his beliefs about chaos when he clarifies that chaos does not mean lack of structure when no learning occurs. Instead, being on the edge of chaos means that structure and open-endedness coexist. He notes that the structure should contain a few key priorities, focus on the information gained through shared problem solving and analyze the findings.

Wilson and Daviss (1994) define Chaos as a branch of mathematics that “explain a phenomenon otherwise unexplainable” (p. 39). Although Sarason (1996) emphasizes the importance of letting the practice that exists within the school culture, drive the theory. Theory cannot stand alone and isolated from the school culture and its existing practices. He believes that theories hold no value unless they are part of a bigger picture such as the actions to avoid, and a realistic time frame for developing the problem of how to accomplish the desired goals. Therefore, the theory comes from and continues to drive the school’s practices.

The Complexity or Chaos Theory warns that in the beginning it may appear that everything is running smoothly, but if differences are avoided they will grow over time and become that much more difficult to resolve. Living in Fullan’s chaos requires forming relationships with people who we don’t understand or may not like. He stresses the importance of working through the discomfort of each other’s presence, learning from
the lack of continuous harmony and developing more complex agreements and capabilities within the turmoil.

Fullan (1991) describes another assumption. He states that no matter how much knowledge there is, there is no way to predict exactly what action should be taken to ensure effective change. He maintains that action decisions are a combination of several factors: “valid knowledge; political issues; immediate decisions; and intuition” (p. 107). He reinforces his position that first changes in its multidimensional form might vary both with an individual and with a group. Second, when deep changes are at stake those changes go to the heart of the groups’ professional identity and self-concept. Third, of the three dimensions of change, there is a complex system of "a dynamic interrelationship" (p.28). It is this relationship that becomes the core of the problem unless there is a thorough understanding about the interrelationship of the three (Sarason, 1996).

Schools undoubtedly want to move past the original project. (Fullan, 1991) continues by emphasizing that "deeper changes in the very culture of the school and its relationship to outside agencies are at stake" (p. 90). When promoting change there must be mechanisms to address exactly what the change means because change occurs at the individual level (Fullan, 1991).

What is the difference between effective and ineffective change? During Smith’s (2001) workshops around the country he asks participants to list their associations with
“superficial change” and “substantial change” (p. 30). The respondents provided statements concerning superficial change. They felt it was illusory, temporary, cosmetic, short-lived, mandated, and top-down. The descriptors about substantial change were identified with having an impact, affecting teaching and learning, changing what people actually do, led by practitioners, involving a sense of ownership, leading to definite outcomes. Smith (2001) discusses points made by Harvard University’s Richard Elmore. Elmore (1995, 2001) maintains that change in schools in the United States is not effective change because the focus is faulty.

Use of a Facilitator

Fullan (1991), considered an outside facilitator as a valuable part of the change process. He studied the effect of 80 outside facilitators who worked with 97 schools and reported the findings of Cox (1983). He provided significant support in a variety of ways, including the effectiveness of an outside facilitator working with local change agents to develop plans for implementation, and playing a continuing support and evaluation role. Fullan (1991) also agrees with the studies of Corbett, Dawson, and Firestone (1984), in their position that an external facilitator supporting a local leader is most effective in the early stages of change.

Readiness to initiate change concerns the definition by Firestone (1989) as the "school's capacity to use reform" (p. 63). Fullan (1991) identifies several questions that could guide the determination of whether or not a school was able to change. Is the school ready with the prerequisite skills to proceed? Is their time to initiate and move forward with the change process? Are there adequate materials, supplies and facilities to
Fullan supports the need to continuously provide support through in-service and orientation to each new staff member that joins a faculty. If the support is not there, the new staff members can erode the processes in place. He describes the ultimate goal of the change process through the work of Crandall, Eiseman, and Louris (1986) with a quote regarding innovation, "...the user becomes so proficient that he or she is finding new wings, modifying the original innovation so that it in fact works better, or even looking for a practice that represents an improvement over the one just mastered" (p. 44).

Challenges

Fullan (1991) refers to the work of Berman and McLaughlin (1978); Huberman and Miles (1984) when he explains how staff and administrative turnover become the most powerful factors that get in the way of effective change. Principal interviews by the Principal-researcher (Isaacson, 2001) concur.

Additional challenges occur when teachers, administrators, students, and parents enter into a school environment where their prior experiences within education provide the foundation that drives their current belief about how teachers should teach and children should learn (Sarason, 1996). “The challenge to each individual teacher, administrator and school in the coming years will be to harness the winds of change by focusing on the needs of student learning in the classroom” (Daggett, p. 1).
With each classroom innovation teachers feel challenged when it goes against their personal and professional beliefs. If their current practice works, they feel there is no need to change (Wilson & Daviss, 1994). Trubowitz (2000) agrees. He found that teachers as a group value security and stability, they work hard, and are committed to help others. With those characteristics and nature they will more likely resist change in the beginning. They are usually comfortable with their current secure place and generally want to stay there. This position is further confirmed by Fullan and Hargreaves (1996) when they examined the dilemmas and problems created that get in the way of implementing educational change. Teachers face more complex issues to handle and not enough time or support in order to resolve problems in a clearly defined, logically planned way.

Change comes with a variety of complications. Fullan and Hargreaves (1996) describe issues of change in a variety of areas. Each of the forces for change engages teachers in a continuous barrage of expectations:

1. Outcomes for student learning require they receive the skills to apply learning to the real world.
2. Added responsibilities within the school along with school-based decision making practices encourage more autonomy within each school.
3. Increased standards drive more in-depth staff development and collaboration.
4. Technology connects students and teachers to the global world of learning.
5. Equity and cultural diversity create new styles of leadership.

6. The workforce delineates between those students who are prepared for the world of work and those who are not.

There are other reasons that change is difficult. Fullan (1991) suggests that change is part of an unpredictable process. There are few guidelines and the process requires struggling to understand, modifying action and processes on the spot within a complex position that is ever changing and hard to define. Vaill (1989) agrees. He pointed out that change is multidimensional and “involves all aspects of the organization: its structure, its politics, and especially its people. Change is not a predictable enterprise ... but a struggle to shape processes that are complex and elusive” (p.78).

Fullan (1999) makes the statement, “conflict and diversity are our friends.” He maintains that consensus provides superficial harmony, however if conflict is respected positive creative ideas can emerge from chaos (p.22). He points out that learning more frequently occurs from people who disagree, however, those who have views other than our own are rarely acknowledged.

Teachers, administrators and parents, referred to as constituents, can sabotage any attempt at change. It is preventable. However, unless everyone feels valued, appreciated, listened to respected, and involved then the successful change will exist only in the change of structure, not the use of the effective commitment of the constituents (Sarason 1995).

Evans, (2001); Shapiro, (2000); Vaill (1989) each views change from a multidimensional perspective. They see the process and its complexities while
acknowledging the need for continuous modification through the implementation of organizational change. Fullan (1995) reminds us that there is no cookbook to follow when implementing change. He also believes that there can never be a theory of change. Theories of change can guide thinking and action but organizations are so complex that every situation will bring unpredictable differences to develop that a theory could not stand the test of time. Each organization is different, with a different set of standards and expectations.

Sarason (1996), emphasizes that the change process is far more important than the implementation of the end product. (Fullan & Hargreaves 1996), agree that teachers must learn to trust that the process is important within the uncertainty that accompanies change. Fullan found that change, even in its simplest form, as in a single classroom innovation, is complex. Innovation is "multidimensional" (p. 37) and involves three specific dimensions: (a) new or modified curriculum materials or technologies, (b) a new instructional strategy, and (c) the adaptation of a belief system. It is important to monitor and assess all three dimensions since each one depends on the success of the other (p.36). He also maintains that real change involves changes in "conceptions and role behavior" (p. 38).

Daggett continued by commenting that the system is so ingrained that “changes are often focused on what is best for the educators, taxpayers, and parents rather than on what is best for the students” (p.3). “Education still confuses changing a program or procedure with the process of change itself”(Wilson & Daviss, 1994, p. 38). As John
Goodlad (1996), points out, “The 'Achilles' heel' of educational improvement of any sort, may be the vague and inadequate principles that define the educational conditions that are to replace and go beyond what is currently in place” (p. 229).

Teachers identify change as a challenge and described in one phase of Brown and Moffett's (1999) description entitled: "Trials, Tests, and Initiations” (p. 123). Teachers describe the difficulty of change that arises for educators to keep focused on their vision. They explain how hard the task remains when the obstacles are numerous. It is a struggle to remain optimistic amidst criticism, overcome the pessimism and cynicism that exist, and still provide for the needs of students, teachers, and parents within the school environment. Educators are consistently put to the test, keeping the end in sight, and overcoming a variety of obstacles that get in the way of the beliefs.

Change is also difficult because of the individual needs and behaviors of the workers. Evans (1996) describes the complexities of people in the workplace in two ways. “First, the personal lives and needs of staff routinely intrude on their performance. Second, is the sheer social complexity of organizational life itself”(p.13).

Fullan (1999) expresses his concerns with attempts at innovation in school. He maintains that for the last thirty years educational change has become self-defeating. Responding to the desire for change, “those in authority tighten the reigns by increasing their emphasis in their control, the legislation, accountability, and resources” (p.116). Sarason (1996) makes the point that the problem of change is the problem of power, and the problem of power is how to wield it in ways that allow others to “identify with, to
gain a sense of ownership of, the process and goals of change” (p. 116). That is no easy task; it is frustrating, patience-demanding, and a time-consuming process.

Resistance to change exists in all organizations. Bowsher (1989) identified seven.

1. "Positive" resister--the person who agrees with all the new programs but never does anything about them.

2. "Unique" resister--although the changes may be good for other areas of the organization they are never right for this individual's department.

3. "Let me be last" resister--will not say change is wrong, but uses the strategy of trying to be last to implement change, hoping all new ideas will die out before his or her department must institute a new program.

4. "We need more time to study" resister.

5. "States rights" resister--resists any new program from headquarters, stressing that only local programs will be effective.

6. "Cost justifier" resister--prior to nay changes, everything must be cost justified.

7. "Incremental change" resister--the most difficult to win over to a new system.

New approaches are tried only if they have everything the old system had (p. 129). In addition, according to Trubowitz (2000), teachers who had unsuccessful experiences with previous change efforts are less likely to become committed to any new change proposals. The result is a resistance to change. Fullan (1991) agrees. He quotes Lortie's position (1975), regarding teachers’ attitude regarding change. "The teachers’
ethos is conservative, individualistic, and focused on the present" (p. 212). Fullan (1991) continues by stating that teachers generally do not want to change and become particularly resentful when change is imposed from the outside. By acknowledging that even when teachers appear to volunteer to become part of the change they often only "adjust to the near occasion of change" and change as little as possible (p. 36).

Muncey and McQuillan (1993) summarize their findings on the *Coalition of Essential Schools* with three conclusions. First, changes that were proposed tended to divide the faculty between those that were trying to convince the others of its value and those who wanted to maintain their traditional values. Second, those who were originally indifferent to the change, eventually voiced opposition. Third, change in a school does not contain a middle-of-the-road position by the faculty. Those affected by the change will take a stand one way or the other.

**Solutions**

In discussions led by Sarason (1996), groups of educators had difficulty identifying ways to change an entire school to produce a long-lasting effect. Usually educators do not think in terms of the entire school, let alone ways to develop the criteria necessary to initiate change.

Fullan (1991) verifies the difference between an improvement program that are successful compared to those that are not. He emphasizes that unsuccessful sites do not deal with the inevitable problems that will emerge, instead, but they choose strategies of
avoiding, ignoring and denial. Successful programs dealt with problems head on by developing problem solving committees, creating new roles for various staff members, and creating a variety of methods for providing time for teachers to solve the problems.

Pogrow’s Reality (1996). There is the need to require very specific, systematic, and structural methodologies accompanied by high quality supporting materials. He refers to methodologies as “technologies” meaning, “a systematic way of doing something consistently and can be either a specific social process or some specific equipment. Myth: You can reform education by disseminating knowledge and leaving it up to practitioners to apply that knowledge.

Reality. Reform requires technology, structures, materials, methods, and strong support for practitioners to effectively implement a complex reform idea. Teachers cannot be expected to develop the techniques at the same time that implementation takes place” (p. 658).

Wilson & Daviss (1994) believe that the redesign process, used successfully in science, technology and industry are models that could easily translate into the education arena. There are many parallels that can be drawn. They use the analogy of creating a new product line that requires a team effort comprising researchers, development engineers, marketing experts, salespeople and consumers continuously telling of their needs. Changing conditions often require a redefinition of excellence. The authors maintain that two specific parts of the redesign process should be replicated by education. The process works best when it operates continually as an integrated whole.
Interdisciplinary teams speed up the process. The experts combine their collective skills and focus on a common goal that produces the best product. Redesign occurs continuously, building on previous successes.

Most often forgotten in the change process are the untold stories of conflict, struggles and issues that become the story behind the story. Sarason (1995) describes the importance of the change process as a way to tell not only what would happen, but what could happen under certain conditions. The change process provides the guidance to direct what “one has to think and do, and not what one would like to think and do” (p. 63). It is a way to avoid personal style, motivation, and denial of reality to define the problem and its possible solutions and at the same time avoid personal conflict.

Effective Change according to Brown and Moffett (1999), describe one important key element for a successful school: a professional staff with both technical skills and a commitment to working collaboratively for the success of all students.” Brown and Moffett (1999), report on the longitudinal research study, "Successful School Restructuring" by Newmann and Wehlage (1995). They state that when groups, rather than individuals, are seen as the main units for implementing curriculum, instruction, and assessment, they facilitate development of shared purposes for student learning and collective responsibility to achieve it.

Brown and Moffett (1999) quote Wheatley, "Every organization is an identity in motion, moving through the world, trying to make a difference with all the characteristics of a living system. They have personalities, values, patterns of interaction, structures,
internal processes, and a self-referencing pathway" (p.58).

Shields and Knapp points out the confusion that exists in identifying specific, school-based reform efforts (1997). Specific comprehensive reform models are acknowledged by Slavin (2001) with such programs as: Theodore Sizer’s Coalition of Essential Schools; James Comer’s *School Development Program*; the *National Network for Educational Renewal*; Henry Levin’s *Accelerated School*. Shields and Knapp (1997) point out that effort to evaluate the success of each model lack specific insight. They also admit that change does not guarantee improvement.

Those statements demonstrate the confusion that exists when Slavin (2001) attempts to explain the less than stellar results of his model known as *Success for All* or Adams & Englemann’s *Direct Instruction* model (p.25). A systemic reform effort, cited frequently in the literature, revolves around the work of Slavin. He identifies a systemic reform as the primary strategy used when the issues of standards, assessments, accountability, and governance are raised. His reform prescribes to target large groups of schools and classrooms (Slavin, 2001).

However, renewal efforts tend to look at a global perspective with explicit acknowledgment of shared power, democracy, and access to knowledge (Wilson & Daviss, 1994). Continuing the metaphor of *The Hero’s Destiny*, Brown and Moffett (1999) stated that the goal of the journey "leads to transformation and renewal." (p. 17).

Brown and Moffett (1999) describe the final phase of change as the time when the
leader engages in self-reflection that generates three conclusions:

1. Complexities and contradictions are a natural and inevitable part of the change process.

2. We need to seek and create the knowledge to mature as individuals.

3. We realize that we must rely, not on answers from an external source, but from the capacity to problem-solve, and make decisions ourselves (p. 148-149).

Fullan (1991) admits that when change occurs there are a variety of issues that must come together in just the right combination, which responds to the variety of individual and group needs, encourages, facilitates and pushes people to develop a comfort level with the process itself even though the process is messy. The ultimate goal of the change process requires that the change eventually becomes institutionalized (p. 93). Fullan reveals that the most beneficial approach to change is the ability to understand the process of change, figure out how to affect and influence the things possible to change and diminishing the areas that could create stumbling blocks while defining the groups place in the process (p. 103).

Using the metaphors of myth and legend from the Hero’s Journey, Brown and Moffett (1999) describe the change process and how schools are transformed. They describe the various philosophies and strategies that surround school reform; included in these are interventions such as constructivist teaching and learning. Others include, “action research; reflective practice; study groups; shared decision making and problem solving; goal setting; action planning and implementation" (p. 16)
Recognizing change as a process on the means rather than ends, relies on setting medium-range goals from two to three years, combined with emphasis on "experience and intuitive judgment in decision making" (Louis & Miles, 1990, pp. 31-32). This approach sees "change as a journey, rather than a blueprint" (Evans, 1996, p.15). Fullan (1991) acknowledges that there is not a known end, nor do we "appreciate the consequences of pursuing it until we have already begun the effort" (p.5). Shapiro (2000, 2003) identified a structured process to create an end product while identifying individual needs within an organization. In this way the stakeholders own the change (p. 102-103).

Nine critical factors in three main categories define the characteristics of the implementation process (Fullan's 1991). His model states that characteristics of change would include that of need, clarity, complexity, and quality. His second category includes the identification of local characteristics that include those of the district, community, principal and teacher. His third category is the external factors that include any government or other agencies. In summarizing the factors he concludes that there must be a fit between the new program and the school needs.

Sarason (1996), states that the process of change involves an assumption regarding three types of social relationships: (a) those among professionals; (b) those between the professionals and pupils and; (c) those among the professional and the community. He continues by describing the two most important areas to resolve before change occurs: articulate and analyze clearly the culture of the school so that there is a clear evaluation of whether the planned change actually occurred and was not just
individuals opinions; and understand and develop an accurate conception of the change process.

Sarason (1996) states that one important aspect in the change process must recognize the connection between time to methodically and systematically implement the change and the people willing to invest the additional amount of time necessary for the plan to materialize. He also pointed out that the time it takes to develop and implement a plan is not easily predicted. “Time is a resource” (p. 285). Trubowitz (2000) agrees. He also acknowledges that school reform takes time. Although stakeholders want immediate return in the form of increased test scores, problems cannot become fixed just because new strategies, workshops, team teaching, and advisory meetings begin. Change can not be carried out by the calendar, a brute fact that those with power often can not confront” (Sarason, 1996, p.335).

Summary

This investigation makes several basic assumptions upon which to develop a foundation for the study. Teachers at the elementary school were rarely trained either as students or in teacher training to understand or experience a constructivist approach to learning and teaching. They had to develop new ways of teaching that required changing from a teacher-centered classroom to a learner-centered classroom.

Smith (2001) discusses the Fordham University research project that reviewed the results of a six-school study that identified how schools could change from low to high
performing institutions. Several factors were in common: (a) Strong leadership by experienced principals who were new to the schools; (b) An understanding about the complexities that surround change, including the need for a sense of trust; (c) A feeling of the need for change; (d) Support was evident from the outside agencies and support systems; (e) Focus on how students learn and the in-service needs for teachers; (f) A change toward teachers' decision making in areas of curriculum and instructional strategies (p.33). Each of these change strategies are consistent with those implemented at the research site

Utilizing a constructivist approach to change requires a strategic method that involves teachers in the decision making process at an in-depth level. Utilizing the Analysis of the Dynamics of Change, Shapiro (2003) describes the steps necessary to involve all stakeholders in a school in the identification and subsequent defining lines of action. A facilitator guides teachers through the problem solving process.

Step 1. Teachers will identify each issue that appears to significantly impact the dynamics and culture of the school.

Step 2. Issues will merge and themes will become defined.

Step 3. Teachers will reach conclusions concerning the validity of the identified themes, making sure that they reflect the issues.

Step 4. Next, teachers will identify a plan, based upon the agreed upon needs.

Step 5. Then, teachers create detailed descriptions of ways to meet the planned goals.

Step 6. Teachers determine, which among them, will become responsible for the implementation of each of the goals. When this occurs, constructivist thinking
becomes embedded in all that occurs with the rest of the staff. Teachers become recognized for their skills and abilities and encouraged by each other to step forward and take the lead, or support their colleagues, in a variety of ways (2003). Demonstrating a constructivist model, for a whole-school, provides teachers and administrators with constructivist strategies that provide the foundation for future problem-solving. Ultimately, agreed upon change results from the collaborative efforts of all the stakeholders. Teachers own the change, they take over the leadership role in the school, they become teacher leaders.

Beckhard and Harris reinforce the levels of change that relate directly to the research question with their quote: “make it happen, help it happen, and let it happen.” (p. 94). “Change is a process, not an event” (Fullan, 1993).
Teachers’ Perceptions of Educational Organizational Change

Problem: Often school leaders are expected to lead reform without an understanding of how teachers are impacted. It is the purpose of this section of the literature review to examine teachers’ perceptions about their involvement in organizational change. An examination of the literature is lacking on the specific topic of the perception of teachers about constructivism as an educational change model. The exception is the work of Shapiro (2000, 2003). It was necessary to examine broader issues, consistent with the research topic, that identify reasons teachers participate in organizational change. Examples of deterrents are also provided.

An examination of job satisfaction, in a statistical analysis report, identified job satisfaction among America’s teachers Perie and Whitener (1997). The survey of teachers throughout the United States answered the following question: “How do public school teachers’ attitudes and perceptions of the workplace relate to their level of satisfaction?” Principal interaction, teacher participation in school decision-making and influence over school policy were among the factors more closely associated with teacher satisfaction. The most satisfied teachers worked in a supportive environment. Teachers are more satisfied when their administrator respects and value their ideas (Black, 2001).

A study conducted by Goodlad (1984) found that teachers who were “more satisfied” with their jobs, worked in an environment where teachers perceived they had greater influence over their use of time, and more control of their jobs. In a further study Goodlad (1984) describes teachers as believing they have some control over what goes
on in their classrooms, but limited control over things that go on outside the classroom. When the researchers probed deeper into teacher’s perceptions of their control, “there was a “marked decline in teachers’ sense of powerfulness as the focus moves from the classroom to the school as a whole” (p. 190).

The school leader can easily undermine teachers’ perception of control. One example stated by Wilson and Daviss (1994) describes a principal who made changes in teacher’s instruction without discussing the ramifications. One principal told the math teachers that students must begin using calculators in class. Teacher’s perception of the requirement meant that they must “transform the basic nature of their work” (p.111), and the very nature of the way they were expected to instruct. Such mandates, without teachers as part of the decision making process, are destined for resistance.

In a study reported by Darling-Hammond (1997) teachers reported that when policies are implemented with flexibility they are the most effective. However, policies that are highly prescriptive with few options lead to resistance in a variety of ways. Fewer than 10% of the teachers in the study wanted strict guidelines. Those teachers also did not address student learning, only concern for covering the curriculum (Darling-Hammond, 1997).

Teacher participation in school decisions

Several trends have provided opportunities for teacher participation in school decisions over the years. In the mid-1980’s school systems were encouraged to improve academic performance of schools. Identified as site-based decision-making local schools
were encouraged to involve principals, teachers, and parents in making decisions that ranged from budget to instructional programs. The results met with mixed reviews as teachers perceptions of their ability to make changes often did not materialize to the extent expected. Principals of site-managed schools must confront the complex relationships that occur with stakeholders (Malen, Ogawa, Kranz, 1990).

In the early 1990's Shared Decision Making (SDM) was popular. The theory was that those principals who supported the SDM concept provided time for the staff to meet, helped groups work together, and provided current research. The SDM places more demands on teachers and principals. The group process is slower and requires more time. It is the principal who makes this model work. Teacher’s perception of their involvement in school reform rests with the school principal (Liontos, L., 1994).

An effective implementation of the constructivist model is described when involving teachers prior to making decisions that affect them becomes important. Barth (1990) points out that frequently principals make decisions and then expect teachers to “handle” the situation (p. 135). The need for teachers to feel a part of decision making must come when they are asked to brainstorm solutions and then try to implement them.

Creating a process and environment in which teachers own the decisions are illustrated in Shapiro’s (2003) Analysis of the Dynamics of Change (Appendix 1) and explained in the Southwood Story (Appendix 2). When stakeholders gather, identify issues, and develop agreed-upon outcomes, they own the decisions. In turn, they will become part of the implementation.
Principal interaction

There is a need for principals to provide a vehicle to validate and demonstrate respect for teacher’s ideas. Consistent with the Principal-researcher’s Statement of the Problem: “School Leaders are expected to lead reform without an understanding of how teachers are impacted,” are Sarason’s (1996) findings that “decisions to seek a change rarely (if ever) took into account the ideas, opinions, and feelings of those who would be impacted by change. I mean serious, sustained discussion of what would be required of participants in terms of time, energy, commitments, and motivation” (p.333).

Daft and Lengel (1998, 2000) describe the importance of principals who provide teachers the opportunity to become “inspired rather than controlled ... Leaders develop others by showing the way to vision, courage, heart, communication, mindfulness, and integrity” (p. 56). Their position becomes one of utilizing the strengths of teachers in order to empower them.

Collegiality and Collaboration

Little (1982) describes collegiality in four ways: Adults talk about teaching practices, observe each other, work on curriculum together, and teach each other. Discussion of the teaching craft is revealed, articulated, and shared. “You cannot have students as continuous learners and effective collaborators, without teachers having the same characteristics (Fullan, 1993, p.46). A similar point is made by Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner & Slack (1995).
Summary

Teachers reveal their beliefs and perceptions regarding working in environments that are constructivist when they participate in decision making, and allowed flexibility in instructional strategies. Positive effects of teaching are achieved when teachers can adjust imposed policies based on their best beliefs about student learning.

Researchers describe a variety of strategies that create an environment where teacher’s perception of their work is positive. Barth (1990) for example, describes the need for a community of leaders that will offer “independence, interdependence, resourcefulness, and collegiality” (p. 145).

There are also examples in the literature describing situations that would not create a constructivist environment such as those that provide uncompromising, strict instructional requirements that ignore teacher’s knowledge of their craft. Teachers are restricted from effective teaching when they are asked to focus on rules and regulations and not the students (Darling-Hammond, 1997).

This section describes the perceptions of teachers who work in an environment where collegial sharing and support exist among professionals who are continuously evaluating and improving their school’s progress and student learning (Guskey, 2000). In schools that provide this opportunity teachers are more willing to participate and implement the reform process.
Leadership

The purpose of this section of the literature review is to analyze the complex components of leadership characteristics, sources of power, definitions, defined roles, and skills both from an educational and an industrial perspective. The Principal-researcher will examine the general descriptions and requirements of leadership found commonly in the literature, from both industrial and educational perspectives. Then, examine the various tasks, roles, and strategies that a constructivist leader needs to create a school that is constructivist. Many issues overlap, with the distinguishing features of a constructivist leader emerging.

Finally, the Tripartite Theory of Wilson, Byar, Shapiro, Schell (1969) becomes an additional part of evaluating the role of leadership. The literature review will also identify how all three additional areas: organizational leadership; constructivist leadership; and the Tripartite Theory converge.

Understanding leadership becomes fundamental to the ability to lead. The distinction between the “power of those who lead and the power of those who command” (Owens, 1995, p. 117) is granted by followers who believe the leader shares common beliefs and values. They entrust their power when they are sure that the leader will work in their best interests.

However, few authors examine the specific role of a constructivist leader except for two major contributors in the field, Lambert (2003) and Shapiro (1995, 2000, 2003).
They provide insight into how the broad scope of organizational leadership fits into the constructivist philosophy.

Defined Leadership and Power

Owens (1995) synthesized five of the most classically described sources of power, according to the work of French and Raven (1959).

- **Reward Power**: controlling rewards that will induce others to comply with the power-wielder’s wishes;
- **Coercive Power**: having control of potentially punishing resources that will induce others to avoid them;
- **Expert Power**: having knowledge that others want for themselves so much that they will be induced to comply with the power-wielder so as to acquire the knowledge or benefit from it;
- **Legitimate Power**: having authority conferred by holding a position in an organization that is recognized by others as having a legitimate right to obedience;
- **Referent Power**: when a power holder has personal charisma, or ideas and beliefs so admired by others that they are induced by the opportunity to be not only associated with the power holder but, insofar as possible, to become more like him or her (p. 118).

Burns (1978) believed the following as the best definition of leadership: “leadership over human beings is exercised when persons with certain purposes mobilize, in competition or in conflict with others, institutional, political, psychological and other
resources so as to arouse and satisfy the motives of followers” (p.18).

Two categories of leadership produced the terms transactional and transformational leadership. Transactional leadership describes the relationship between leaders and followers from a leader’s position of power. For example, transactional leaders offer a tangible and direct demonstration of the leader’s control over the follower since they provide job, security, and favorable evaluations to their subordinates (Burns, 1978).

Transformational leadership is described in the work of Segiovanni (1999). Transformational leaders lead on a more affective level. They practice with a purpose. Vaill (1984) describes this as “that continuous stream of actions by an organization’s formal leadership which has the effect of inducing clarity, consensus and commitment regarding the organization’s basic purpose” (p.91). Although many experts describe how teachers often work in isolation they agree that teachers derive greater satisfaction and meaning in their work when the purpose and value of their work is shared with the leader (Lieberman & Miller, 1990; Lortie, 1975).

Sergiovanni (1992) identified a higher level of leadership with the concept of “moral leadership.” Within this process he developed three additional perspectives of leadership. First, the follower works with the leader by choice, sharing goals and expectations. Second, alternative leaders are available for the follower. There are also alternative plans and programs available. Third, moral leadership is characterized by dedication and a sincere commitment to honor agreements with the followers.

The concept of servant leadership, identified by Greenleaf (1977) “gives certainty and
purpose to others who may have difficulty in achieving it for themselves. But being successful in providing purpose requires the trust of others” (p. 15). Servant leaders work in the best interest of their subordinates, rather than in their own self interests. Sergiovanni (1999) suggests that as the emphasis moves from one level of leadership to the other it becomes more increasingly a form of virtue. That is, when moving from that of “leader of leaders,” to leadership, to servant leadership, each step is developmental with each preceding level becoming less important than the one before. Ultimately the goal remains that of developing leaders of leaders.

The importance of leadership specific to schools is widely discussed in the literature. Hodgkinson (1991) revealed there are over a hundred definitions of leadership. The Principal-researcher found numerous current writers in the field of educational leadership such as: Barth (1990, 2001); Bennis, (1985, 1989); Caine and Caine (1997); Comb, Miser and Whitaker (1999); Covey (1991); Daft and Lengel (2000); Deal and Peterson (1999); DuFour and Eaker (1998); Evans, (1996); Fullan (1997); Goodlad (1984,1994); Manz and Sims (2001); Marzano (2003); Marzano, Pickering, Pollack (2001); Perkins (1992, 1999); Sarason (1996); Senge (1999, 2000); Sergiovanni (1992, 1999); Schlechty (1990, 2001); Other writers and researchers entered the field of leadership from a business perspective and widely read by educators such as: Bennis (1985, 1989); Maxwell (1995, 2001); Peters (1987); Senge (1990, 2000).

Leadership Skills

Constructivist leaders model the same understanding of the constructivist
philosophy with teachers, as they expect teachers to model understanding constructivist beliefs with their students. Adults, like children, bring to the teaching arena their own prior experiences, beliefs, customs, culture, values, sociocultural histories, and perceptions (Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner, & Slack, 1995.) In a constructivist environment it is particularly important for principals to model learning (Lambert, 2003).

Lambert (2003); Gordon (2000); and Marzano (2003); National Association of Elementary School Principals (2002) each developed comprehensive lists of leadership skills that become applicable to the requirements of a constructivist principal. Their commonalities include the following:

1. Know yourself—clarify your values.
2. Extend your understandings to school and staff.
3. Assess the leadership capacity of your school.
4. Accept the school’s current condition.
5. Continuously interact, ask questions, and be there for the staff.
6. Build trust through honesty, respect, and follow-through.
7. Develop community norms.
8. Establish decision-making rules.
9. Create a shared vision.
10. Develop leadership capacity in others, providing ways to understand theories about leadership, and opportunities to put theories into practice.
11. Establish a leadership team as a curriculum design team.
12. Convene and sustain regular in-depth conversations.

13. Establish a process of collaborative inquiry such as those found in study and focus groups.

14. Develop goals and plans for action.

15. Engage in communication processes designed to develop trust, relationships, and leadership; provoke quality performance; and implement community decisions.

16. Evaluate student progress.

The goal of a constructivist principal: provide an environment that promotes and supports the school-wide implementation of the constructivist philosophy. An effective principal is ultimately a change agent (Sarason, 1996). Therefore, administrators should “operate as organizational troubleshooters” (Shapiro, 2000, p. 93). Examining the various components that describe interventions principals make to create an environment of learning, solving problems, and developing a constructivist culture begins with the school leader (Shapiro, 2000, 2003).

School Culture

Developing a clearly defined school culture is critical for the success of a constructivist school and evolves when groups develop a constructivist environment in which to work (Shapiro, 2003). A productive environment requires that the leader promote and encourage positive interaction among staff members (Marzano, 2003). There are a variety of additional ways that a vigorous culture is recognized according
Fullan (1996, 1999, 2001); Peterson and Deal (1998). (a) The staff has a shared sense of purpose. (b) The underlying norms are those of collegiality and improvement. (c) Rituals and traditions celebrate student and teacher successes. (d) There is an informal network of storytellers that provides a social web of information, support, and history. (e) Success, joy, and humor are found everywhere.

There is common agreement among the most prominent researchers that positive school cultures are not built around the people, but around the relationships that exist among them. Fullan,(1999, 2001); Shapiro (2000, 2003). Fullan adds that new relationships are important however, only if those in the groups establish “greater program coherence” (p. 65). It then becomes up to the leadership to provide additional resources if necessary. (National Association of Elementary School Principals, 2002). Daft and Lengel (2000) describe the building of cultures with the term, “Organizational Fusion” (p. 197). Cultures then shift from “I” to “We.” It involves separating individuals and molds into a community. This encourages groups to discover their common strengths. Collegiality and the development of positive school cultures go hand in hand (Maxwell, 2003). Leaders in constructivist schools must develop a culture where everyone owns the school culture (Shapiro, 2003).

Reciprocal processes

Constructivism requires the reexamination of leadership since a new form of administration emerges. The relationship between learning and leading with a constructivist philosophy is powerful and reciprocal. Each view changes as it is
influenced by the other, Lambert (1995). “Constructivist leadership is the reciprocal processes that enables participants in an education community to construct meanings that lead toward a common purpose about schooling” (p.29)

The principal sets high expectations for reciprocal learning. This would occur through reflective practices, continuing staff development, dialogue about student expectations, and self-assessment. Barth (2001), states that, “teachers and students go hand in hand as learners–or they don’t go at all” (p.23). This quote should be expanded to include principals. A learning community cannot exist in a vacuum, segmenting learners, one from the other.

Organizational Leadership

The corporate world wants constructivist thinkers. Schlechty (1990) and Daggett (2001), describe the expectations that business leaders want in their employees. They want people who know how to learn, the ability to think and solve problems, to express themselves with rich vocabulary based upon a deep understanding of concepts. He describes a “knowledge-work organization” the same way others describe a constructivist environment for teachers and students. Schlechty’s definition of knowledge-work is “putting to use ideas and symbols to produce some purposeful result” (p. 34).

Vision Building

Constructivist leadership begins with a personal vision of the leader. The importance of understanding and communicating a vision is cited frequently in the
literature on leaders, organizations, and schools and considered one of the primary prerequisites of leadership according to the works of Barth (1990, 2001); Cawelti (1984); Covey (1990, 1991); Deal (1999); Fullan (2001); Gardner (1991, 1996, 1999); Guskey (2000); Hallinger and Murphy (1987); Lambert (1995, 2003); Manz and Sims (2001); National Association of Elementary School Principals (2002); Northwest Regional Educational Laboratory (1984); Owens (1995); Peters (1988); Shapiro (2000, 2003).

A principal with a strong belief system, or personal vision, about teaching and learning is not prone to bend to the pressures of moving toward a more traditional approach, they keep on course (Combs, Miser, and Whitaker, 1999). It is important for leaders to clarify their own goals if they are to influence others (DuFour, 1996). Combs, Miser, and Whitaker (1999) noted that developing a solid foundation of one’s beliefs, provides a grounding that creates an anchor for values and beliefs. Schein (1985) acknowledges the importance of the mission and vision in defining success of a school, although each school defines success in different ways.

Personal vision comes from life experiences (Sarason, 1996). Additional sources come from hopes and dreams for the school. A vision is the ideal future as well as a vehicle for change A shared vision follows. Daft and Lengel (1998) explained that a shared vision provides a common ground and group belief system upon which to build the organization’s goals. Senge (1990) believes a shared vision changes people’s relationships with the organization. From this there develops a common bond among all the people in the organization. Bennis (1989), reminds us of the importance of communicating the vision with a quote made by Jung, “A dream that is not understood
remains a mere occurrence. Understood, it becomes a living experience” (p. 192).

Barth (2001) agrees and states, “A precondition for constructing an authentic, collective vision is that each school educator must come to grips with his or her own personal vision....each of us as an educator must have our own conception of a good school...” (p. 204). That vision then becomes authenticated when it is shared at all levels of the organization (Fullan, 2001). Eisner (2002, 2003), believes that if there is no vision then there is no compass, and no way of knowing where everyone is headed. He describes a quote in the book, When Giants Learn to Dance, by Rosabeth Moss Kanter. She states her belief about a vision, “Become passionately dedicated to visions and fanatically committed to carrying them out–but be flexible, responsive, and able to change directions quickly” (p.220).

The importance of a school leader’s personal vision is also emphasized by Barth (2001),

An effective school leader must develop and maintain a consistent vision and inspire others to work toward it. He is able to say no to ideas that do not support the vision for he understands the direction in which the school is moving and is able to predict the desired outcomes (p.138).

Moffett and Brown (1999), delineate the purpose of a vision in the following way:

1. Vision functions as a "field" within an organization. It needs to operate as an invisible energy field that permeates organization space, influencing everyone who comes in contact with it.

2. Vision building is an expression of hope. Vision is an act of faith...that
we can imagine and create a better future for our children.

3. Vision is an expression of organizational and personal courage. When we articulate a vision, we know who we are, what we stand for, and why we are here. We become fearlessly open with our values and beliefs.

4. Vision building requires personal mastery and emotional intelligence. The emotional intelligence that will sustain us on the journey involves self-knowledge, discipline, resiliency, and exceptional interpersonal skills.

5. Vision building is an open-ended, dynamic process. Our visions for the future are not set in stone. As we act and learn from our actions, our vision will evolve, mature, and grow.

6. Visions need to be developed collaboratively. Without the involvement of everyone in the school community, our visions become mandates without meaning. Our stakeholders feel discounted and marginalized. The result is a lack of understanding and commitment from those whose support we need most.

7. The enactment of the vision requires personal responsibility. Creating heroic schools requires personal responsibility on the part of every member of the school community, teachers, students, administrator, support staff, parents, the school board, and the community at large (p.84).

Moffett and Brown (1999) describe the third phase as the "Heroic Quest." In this phase leaders and teachers must determine their individual and collective vision. Brown
and Moffett (1999) describe the need to formulate a vision. "Our need for vision is fueled by the urgency we feel to find meaning and direction as we are faced with the breakdown of obsolete educational models and practice" (p. 81).

It is not enough to develop one’s own vision. The next step comes in developing a shared vision within the school. When there is a shared vision, DeFour (1998), identified the outcomes in five specific areas: (a) it motivates and energizes people; (b) it develops teacher ownership; (c) it gives direction to people within the organization; (d) it establishes specific expectations of excellence; and (e) it creates a clear agenda for actions. It is the principal’s responsibility to see that each of these elements are in place with a constructivist philosophy at the heart of the expectations (Lambert, 1995).

The point of shared visions is also discussed by Robert Greenleaf’s *Theory of Servant-Leadership*. He suggests that it is the job of leaders to make sure that good ideas are brought into the open, discussed among all the stakeholders, so that eventually a shared vision develops. Although Greenleaf does not address the term constructivist directly, the goals are similar. It is his premise that groups of people should ultimately form into “effective communities of action” (p. 230). An effective leader asks why things are being done and what is being done. They ask why things happen a certain way, and question if an activity agrees with the school vision (Combs, Miser, & Whitaker, 1999). A vision should be fluid according to Fullan (1995), Sergiovanni (1999). Fullan further contends that the most powerful shared visions are those that become foundational for further study about where the groups, as well as individuals, want to go in the organization development.
Developing a common purpose and shared inquiry is defined in a variety of ways. Each of the terms leads to the same point. Leadership is a shared responsibility. Leaders no longer act alone, but in concert with others. It is defined as collegiality (Schlechty, 2001); learning community (Barth, 2001; Lambert, 1995); and interdependent relationships (Fullan, 2001; Greenleaf, 1995). Leaders who embrace open inquiry, the sharing of problems and solutions, and collective responsibility will foster creativity, resourcefulness and collaboration in the work of staff and the learning of children. (Ackerman, Donaldson & Van Der Bogert, 1996).

Constructivist Leadership

Lambert (1995), identified the commonalities that exist among several authors as each describes a component of leadership that have constructivist implications: (Senge, 1990; Fullan, 1993), ‘design learning processes’; (Schlechty, 1990), ‘invites others to share authority;’ (Covey, 1990), ‘fosters mutual respect;’ or (Gardner, 1990; Sergiovanni, 1992), ‘process of persuasion’ (p. 31). Lambert (1995), describes schools as, ‘an interdependent community in which the structures, policies, and practices encourage and sustain constructivist learning and leading.’ (p. 133).

Lambert (1995) identified acts of leadership that she distinguished from a leadership role. She defines leadership as an “inclusive field of processes in which leaders do their work. Leadership requires facilitation skills, because framing, deepening, and moving the conversations about teaching and learning are fundamental to constructing meaning” (p. 46).
Community of learners

Barth’s (1992) metaphor of a community of learners helps leaders focus on the importance of learning for everyone in the school. Principals recognize that all members of the staff bring to the learning experience the same thing as the students: prior experiences, beliefs, values, cultures, and perceptions. When the principal orchestrates reflective practice and social interaction, meaning and knowledge is constructed among members of the staff. When reflective dialogue take place adults develop greater depth in their understanding and thinking about the world and are more likely to accept new learning experiences (Lambert, 1995).

Since constructivist learning is a cooperative experience, in order for learning to occur among adults and students, a strong community of learners must be developed (Fullan, 2001). The principal is the leader that can make this happen (Lambert, 1995). Combs, Miser, and Whitaker (1999) describe the role that effective leaders play in establishing the community. Leaders remind those around them of the vision and values that are developed within the school community. However, there are many ways for teachers to reach the same pre-determined goals. But each road must get to the same destination (p. 154).

Leaders must engage in frequent and substantive dialogue with all stakeholders, continually reinforcing the direction of the mission. Everyone is encouraged to add their ideas and opinions to the conversation, to discuss ways to make the overall learning of the school more effective (Combs, Miser, and Whitaker, 1999). This is the development
of a common purpose and shared inquiry. First, however the leader must discover what aspirations, goals, interest, needs, or dreams they have in common with their staff members (Kouzes and Posner, 1987).

Supervision, collegiality, and collaboration

Shapiro (2000) describes the importance of teacher supervision. However, a constructivist leader’s supervision of teachers is not the autocratic approach of the traditional school structure. Instead, supervision is a shared responsibility among all teachers and the leader. It includes peer supervision, coaching, and mentoring. It involves discussions of student and teacher learning experiences, assessing those opportunities, and planning for more sophisticated experiences.

Teachers in constructivist schools have the opportunities to observe other teachers and provide feedback. Teachers observing other teachers creates a feeling of community. It makes possible teacher’s access to one another. The dialogue about student’s work becomes the priority and is enhanced when colleagues engage in discussing quality pedagogy (Eisner, 2002; Garmston & Wellman, 1995; Sergiovanni, 1992). The educational leader in the school provides time for this interaction to occur in other ways such as teacher-driven staff development (Barth, 1990; Combs, Miser, & Whitaker, 1992; Greenleaf, 1995).

The concept and importance of collegiality among staff members of a school are well documented in the literature. When teachers interact with each other on a professional level, collegiality becomes a natural outgrowth. Collegiality becomes a
powerful substitute for leadership (Sergiovanni, 1992). Other examples are found when teachers jointly develop and share teaching materials. These interactions create a shared language about teaching.

“Interdependent relationships” is a term used by Greenleaf (1995), as he describes the importance of creating collaboration. He describes a scenario when a team or council comes together. The vision is reviewed and the first question asked of the leader, “How can I help you?” (p. 211). The council approaches the problems with the goal to reach a workable solution. The belief of the members: reach consensus through discussion. Dialogue includes: asking questions; listening; providing insight; drawing on the strengths of others.

Teachers now recognize the need to collaborate and develop collegiality (Fullan & Hargreaves, 1996; Gordon, 2002). The school leader is responsible to facilitate and orchestrate such collegiality as a way to assist teachers with group discussions about how best to help each other instruct students. At the onset Kouzes and Posner’s book (1998), they observe that “leaders create relationships” (p. xv). What separates effective from ineffective leaders, is how much they “really are about the people they lead” (p. 149).

Evaluations and observations of teachers by principals should reflect a constructivist understanding by both the principal and teachers (Gagnon & Collay, 2001). High expectations for teachers become part of the discussion, feedback, and support process. More recently, information to assist principals and teachers about constructivist teaching and learning, for the purpose of more effective supervision, is prominent in the literature. Although the authors did not specifically state that their methods were
“constructivist,” the discussions of effective teaching practices, are constructivist.

Examples of these expectations can be found in the works of Brooks and Brooks (1993, 2000); Erickson (1998); Fogarty (1997); Isaacson (1994); Marlowe and Page (1998); Marzano (2003), Marzano, Pickering, and Pollock (2001); Shapiro, (2000, 2003); Shelley (2000); and Wolfe (2001).

Shapiro (2000) identified three different phases of supervision. The first two are more autocratic, either being driven by Central Office control or State testing focus. The third phase in his institutional growth processes illustrates a constructivist approach to supervision, these are the effects of peer supervision, coaching, and mentoring (p. 28).

Shaprio (2000) provides several options that support ways in which a principal could supervise and evaluate effective constructivist elements. The principal would evaluate a teacher's lessons in both formal and informal visits. Teacher's lessons would reflect (a) the use of small groups as the foundation for instruction, (b) student input and its effect on instruction, (c) focus on the learning and understanding processes used by the students. The dialogue between the teacher and principal focus on how teachers were able to guide students into higher level and reflective thinking, problem-solving, both alone and in small groups, and engage in thought-provoking discussions.

Informal visits to classrooms to watch teacher and student interaction occurs frequently. Teachers cannot effectively show how they internalized the processes of constructivist teaching unless there are several opportunities for the principal to watch what happens, spend time reflecting, and provide feedback on the observation of teacher and student interactions. Principals and teachers then discuss the expectations of teaching
practices through a constructivist lens.

As principals visit classrooms and interact with students and teachers, they learn together. Principal’s conversations with teachers support the high expectations for students (NAESP, 2000), that is consistent with a constructivist philosophy. It should include discussions about student performance and expectations.

Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner and Slack (1995) describe one way to accomplish this in Chittenden and Gardner’s (1991) work with assessments. Assessments were ongoing with open-ended formats obtained in a variety of different settings. Dialogue between teachers and the principal evaluated the difference between traditional assessments such as those that focus on fill-in-the-blank back-line sheets and a constructivist approach describing Perrone (1991), when he described the importance of:

trying to instill in students not just the mechanics of reading and writing, but also a love for reading and writing. It means providing them the opportunity to practice democracy, not just learn about democratic thought. It means encouraging them to construct knowledge, not just hear about it. It means making sure they experience the power of cooperative and collaborative thought, not just the pressures of competition (p. 24).

The constructivist nature of reading and writing is also described by Spivey (1997). As readers and writers interact with their text and the work of others, they engage in the constructivist process. Principals discuss student work with teachers who then describe how they implement effective and appropriate strategies with students, and
subsequently determine the effect of the process on instruction and student understanding (Lambert, 1995).

In the process of determining how well students engage in meaning-making, Brooks and Brooks, (2000), make a valid point. They note, “how different the learning and assessment processes in school would be if teachers would see themselves as cognitively linked to the students they teach” (p.87). Both teacher and student is then joined in the learning process.

Newman, Griffin, and Cole (1989) agree. Instead of giving the children a task and measuring how well they do or how badly they fail, one can give the children the task and observe how much and what kind of help they need in order to complete the task successfully. In this approach the child is not assessed alone. Rather, the social system of the teacher and child is dynamically assessed to determine how far along it has progressed (pp. 77-78).

Tripartite Theory

Keeping organizations alive with the many variables that enter from the customers, stakeholders, and superiors is a daunting task. Wilson, Byar, Schell, and Shapiro (1969), Benjamin, Hunt, and Shapiro (1995), Shapiro (2000, 2003) described the Tripartite Theory of Organizational Succession and Power. The theory is based upon the ways in which organizations develop through various phases of evolutionary change.

Shapiro (1969, 1995, 2000, 2003) specifically, speaks about the types of leader that come to an organization, and under what circumstances. He describes, for example,
that a “charismatic leader” enters an organization, usually when the existing organization is floundering. Those in charge of hiring a leader begin looking for someone who will energize the people who work within the organization. When this happens, people become committed to the person, more than the organization as a whole.

Shapiro describes this phase in the developmental stages of an organization the “person orientation phase” (2000, p. 75). He continues by explaining that during this phase, ideas and suggestions are generated because the new leader communicates the best of the worker’s expectations. During this time, there is no specific plan of action, but the charismatic leader validates those in the organization and generates excitement. However, this type of leader is well-liked by most of the workers in the company, but once the ideas are discussed and new ideas are generated, the superiors look for the plan. One rarely emerges. The leader then moves on to another position, where ideas, become the expectation.

The next leadership phase, in Shapiro’s theory (2000), requires a “planner.” When a planner follows a charismatic leader, the job becomes especially complex. Planners often work with little of the fan-fair required of a charismatic leader. They tend to see solutions to complex issues. With a specific plan, that often follows an idea generated by the charismatic leader, the organization now develops a commitment to the plan, not the person. Within five years, the people who were involved in the decision making have moved onto something else. Or else, the plan becomes filled with rules and regulations that dilute the intent of the plan until it barely resembles the original goal.

Next, in Shapiro’s (2000) lineage of leaders, emerges the “bureaucrat” (p. 78).
The planner no longer fills the organization’s intent, since the goal in now lost in obscurity, and someone is hired who will tighten-up the system. When this happens, the primary focus becomes organizing the organization and building a power base. This type of leader is structured, and task-driven. Now the people are dedicated to the position.

Finally, there is the “synergist” (Shapiro, 2000, p.79) who combines both charisma and planning. This type of leader must posses an unwavering commitment to the organization and the goal established. This leader has a strong personal vision, based upon an experiential knowledge base and the ability to build a community that becomes a shared vision.

Each of the phases of the Tripartite Theory describes the many organizational personalities that exist. In order for constructivist leadership to become part of schools, each of the parts of organizational change must be understood by those in positions to hire school leaders. Organizational leadership occurs most frequently with the bureaucrat. When constructivist thinking requires shared leadership, this type of leader would not function effectively.

The “charismatic” leader requires those that will provide support and help create the plan necessary with the “planner.” Neither personality could create a constructivist environment alone. The “synergist” provides the most likely combination for a constructivist environment. Since it is difficult to find such a person, Shapiro (2000) recommends the most logical solution: create a team of people who can serve in each of the roles. The characteristics of the synergist provide the most balanced personality to create a constructivist environment. Otherwise, a balanced team with a charismatic,
planner, and synergist member could best serve in a constructivist culture. Through the Tripartite Theory the convergence of both organization and constructivist leadership can be demonstrated.

Organizational Leadership-A Business Model

School leaders adopt organizational management strategies surrounding effective leadership, often from a business perspective. Although, if schools are managed from the position that uses a strict interpretation of organizational leadership then constructivist thinking would become problematic to the leader. The industrial model provides procedural strategies that in some minor ways could be adapted to the school level. Authors from the organizational leadership position discuss the importance of developing functional and productive teams. Outcomes are based upon data-driven production-generated success. There is a significant distinction in the hierarchy. The leader is central to the organizational structure. The vision generally develops with the leader and possibly members of a central Board of Directors. Members of the group have well-defined roles that are clearly delineated. School leaders who rely primarily on an organization leadership style usually have a more principal-centered, controlled environment (Harvey & Brown, 2001).

Summary In order for a school to evolve, based upon a Constructivist philosophy, the leadership must have a personal vision that leads to a shared vision. Thus, a common
purpose is formed when leaders and teachers articulate their shared vision of how the
construction of knowledge transfers from the school world to the real world of work. The
leader must create a collegial environment where risk-taking is encouraged among the
staff and students. Discussions among all the stakeholders should focus on solving
problems within a collegial atmosphere. The leader asks questions in order for students
and teachers to think at higher cognitive levels, constructing their own meaning. The
leader internalizes the constructivist philosophy and its implementation enough to
provide substantive feedback to teachers during the evaluation process. Everyone in a
constructivist school understands that learning is a process.
Teachers as Leaders

It is the intent of this section of the literature to demonstrate that in order for an organization to sustain itself over time while holding on to a committed vision, and strong philosophical base, teachers must learn to assume leadership roles in the school. The Principal-researcher will examine the literature from both business and education in order to analyze the issues surrounding the concept of teachers as school leaders.

Several areas will be investigated within this section: (a) shared decision-making; (b) the development of a community of leaders; (c) the development of teachers as leaders; (d) qualities and attitudes necessary for a teacher to assume a leadership role.

Shared governance, servant leadership, teachers as leaders are all developed to improve school effectiveness and increase students learning (Glickman, 2001; Schlechty, 1997; Sergiovanni, 1994; Smylie, 1997; Weiss, 1993). Without teacher input and support, any educational effort to improve schools will not happen. (Darling-Hammond, 1987; Duke, 1982; Lieberman, 1990, 1996; Weiss, 1993). Principals should look for potential leaders within the stakeholders. “It takes a leader to see the future leader within the person” (Maxwell, 1995). The importance of “getting the right people on the bus” becomes critical in the development of future leaders (Collins, 2001, p.57). In the words of Roland Barth (2001), “Teachers become more active learners in an environment where they are leaders....all teachers can lead...all teachers must lead” (p. 85). The research on teacher learning and leading is relatively new as a research topic. The research that is available, in the form of case studies, reinforces the value teachers place on themselves
when placed in leadership positions and when they assist in creating a community of leaders (National Research Council, 2000).

Developing a Community of Leaders

The community of leaders terminology, as it relates to shared leadership, originated with Roland Barth (1988). A community of leaders assumes that teachers can lead and contribute to accomplishing the work of the school (Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner, & Slack, 1995). There are several terms used in the literature that describe the same thing, providing a description of teachers becoming leaders. Capacity-building (Lambert, 2003), servant leadership (Greenleaf, 1995), leadership density (Sergiovanni, 1994, 1999), defining the bench and defining the team (Maxwell, 2001), and a community of lifelong learners (Barth, 2001).

Much of the literature places the responsibility of leadership on the school principal. However, the principal-researcher believes that the work described by Schlechty (2001) on leadership roles can be transferred easily into the role that a teacher-leader assumes. In that regard the teacher as leader must possess many of the same skills as the principal-leader; thinking like the leader. “Grow a leader–grow the organization” (Maxwell, 1995, p.4).

Within a school there are a variety of opportunities for adult learning where every teacher becomes a staff developer for every other teacher (Barth, 1990). The literature describes the leader of the school in many of the same ways as teacher leaders. (Schlechty, 2001; Katzenmeyer & Moller, 1996; Lambert, 2003; Maxwell, 1995, 2001).
The lines between the two functions become blurred when many of the roles for both the principal-leader and the teacher-leaders are described in parallel terms.

Reinforcing the vision

Teacher’s input and shared decision making is necessary if the vision and mission of the school will be fulfilled (Bolman & Deal, 1997). Vision, according to Daft and Lengel (2000) is the higher purpose toward which people work that provides meaning and inspiration for their collaborative efforts” (p. 20). If the vision of a constructivist school remains throughout the development of the school then it takes teacher-leaders to share, perpetuate, and maintain the vision for themselves and others. A vision sets the school’s targets (Bennis & Nanus, 1985) and creates the learning organization (Senge, 1990; Shapiro, 2000, 2003).

Teacher-leaders understand the vision of the school and the value of their contributions, teacher-leaders lead with a vision (Maxwell, 1995). A constructivist leader must understand effective ways to communicate the goals, mission, and implementation that exist in a constructivist school (Shapiro, 2003). Each person is able to make decisions with respect to the needs of the entire school or team and takes personal responsibility for the success of the organization (Daft & Lengel, 1998, 2000; Combs, Miser & Whitaker, 1999). “Leadership among colleagues is as much about teamwork as it is about being out in front leading the charge” (McEwan, 2002, p. 43).

Sergiovanni (1999) described community norms where schools should provide shared leadership where the emphasis is on following a vision rather than a person.
Teacher leaders demonstrate through effective practices, how the vision materializes. Teacher leaders and leadership teams will effectively contribute to the overall positive growth of the school if everyone agrees on common beliefs.

A shared commitment to the ideas and goals of the school is best lead by teacher-leaders because they encourage, inspire, motivate, and care for each other while generating everyone’s best ideas (Maxwell, 1995, 2001). This leads to the best overall coherence. When teachers gather together in a friendly form of collegiality there is a desire to learn from each other and become knowledgeable about the ideas, efforts, and writings of others. Examples include those such as focus and study groups (Fullan, 2001; Sarason, 1996).

Developmental leader

The term Developmental leader means that this type of principal focuses on the growth and development of others; helping others succeed. A developmental leader understands that the best way to get others to succeed is to show support, and provide training and opportunities (Maxwell, 2001; Schlechty, 1990, Shapiro, 2003).

Some administrators took the recommendations from the Carnegie Task Force on Teaching as a Profession (1986), and developed leadership roles and opportunities for teachers (Boyd-Dimock & McGree, 1996; Daft & Lengel, 2000; Lambert, 2003; Nielson, 2001; Troen & Boles, 1992). Another training method is provided in a five-step process for training leaders. The process begins with modeling, followed by mentoring,
monitoring, motivating, and multiplying (Maxwell, 1995).

Leadership roles provide an important support for the teachers. It is hard for teachers to view themselves in leadership roles (Fullan, 1993; Katzenmeyer & Moller, 1996). The most likely way that teachers will emerge as leaders is if there is support, not resistance from the principal. Teachers need to seem themselves as change agents.

Gayle Moller, a professor of education at Western Carolina University is an advocate for encouraging teachers to develop a leadership role in the school. She emphasizes that “every teacher is a leader. If you find out what a teacher’s passion is and you build on that passion and you support him or her, you will have teacher-leaders in your schools” (p.1).

The development of human forces and ingenuity means treating people the way you would treat a flower in your garden...flowers, which blossom not because you direct it to, but because you release its potential by providing positive conditions of light, water, temperature, and soil (Daft & Lengel, 2000, p. 43).

Learning is a reciprocal process between and among teachers. Teachers understand their responsibility for their own and their colleagues’ learning. Lambert (1996, 2003) describes this type of learning as the “reciprocal processes of constructivist learning” (p. 22). Lambert (1995) refers to the reciprocal processes of leadership:

1. Evoke potential in a trusting environment
2. Reconstruct, “break set” with, old assumptions and myths
3. Focus on the construction of meaning
4. Frame actions that embody new behaviors and purposeful intentions (p. 22).
Within that context there is a distinction between a teacher identified as assuming quasi-leadership roles such as a team or department leader and a constructivist teacher-leader. In the former, the teacher frequently is the organizer of events, meetings, or even some staff in-service. In the latter, a constructivist teacher models in-depth levels of inquiry such as problem solving, high level questioning, and thoughtful probing into high level instructional practices. When constructivist teachers lead they ask questions of others, explore, investigate, examine, study, discuss, and reflect on the results of teaching practices (Lambert, 1996, 2003; Shapiro, 2000, 2003).

Effective Teacher Leaders

A highly effective teacher meets the following definition of a leader. “A person who is in a position to influence others to act and who has, as well, the moral, intellectual, and social skills required to take advantage of that position” (Schlechty, 1990, p. xix). An effective teacher-leader possesses several qualities described by Maxwell (1995) such as: “character; influence; positive attitude; people skills, proven track record; confidence; self-discipline; effective communication skills; discontent with the status quo” (p. 47). When teachers see themselves as leaders, they are able to influence student learning through their modeling. Teacher-leaders keep their connection in the classroom, studying effective instruction, carrying on their leadership role both in and out of the classroom. The teacher-leader influences others to improve instructional practices (Katzenmeyer & Moller, 1996).

A constructivist teacher-leader engages in several types of leadership activities as
described by Lambert (2003).  (a) Ask the question of colleagues, “What are our current beliefs?” Lambert refers to this as “surfacing of ideas, assumptions, histories and prior knowledge.” (b) “Engaging in inquiry” (p.22) which involves discussing student work, developing classroom action research, conducting observations, and reading and discussing research. Teachers then ask one another, “What are we learning?” (c) Teachers enter into dialogue with each other and reflect on their instructional practices. They ask, “What changes should we make, based upon our findings?” (d) Reframing teacher instructional practices based upon what they now know and understand.

(Manz & Sims, 2001; Sergiovanni, 1995) observed ways in which leadership teams became self-managed. They were effective in ways such as self-observation, self-evaluation, and self-problem solving. Some ideas involved conducting role-playing exercises with team leaders. During these exercises groups were encouraged to evaluate themselves and give feedback to the team members. Effective constructivist teacher leaders also model ways they keep current with the latest research in practice, create classroom action research, experiment with new ideas, and share their findings with others (Sergiovanni, 1995; Fullan & Hargreaves, 1996).

Elmore (2000) warns that schools should not focus only on talented individuals, since that implies that it is more important to do what is expected, and do it well, than it is to do well with an individual’s personal knowledge base. He maintains that schools develop talents when the organizations create and nurture agreement on what is worth achieving. They “set in motion the internal process by which people progressively learn how to do what they need to do in order to achieve what is worthwhile” (p.25).
In addition, not all members of the organization have the personality to step forward and become recognized. It is important to find the quiet, reserved, yet knowledgeable members and provide a platform upon which they can comfortably lead. (Shapiro, 2001, 2003). Maxwell (2001) adds that every member of the team can become a starter given the proper coaching.

Using a sporting analogy, Maxwell (2001) identifies those who are starters on the team and those who stay on the bench. He states that “starters are front line people who directly add value to the organization or who directly influence its course. The bench is made up of the people who indirectly add value to the organization or who supports the starters.

Maxwell (2001) recognizes that not everyone is a starter. However, everyone on the team has value. At any given time, someone from the bench becomes a starter. Continuing the sports analogy, when team members interact with one another in a positive and productive way, collegiality becomes the result. This type of professional support cannot be contrived, but requires teachers to plan together, consult together or engage in peer coaching (Fullan and Hargreaves, 1996). It is often from these types of interactions that leaders emerge (Marzano, 2003).

Principals’ roles

Robert Greenleaf’s Theory of Servant-Leadership (1995), provides insight into ways of viewing the role that principal’s play in developing leaders within the staff. Encouraging risk-taking becomes an important component of developing teachers as leaders. encourage risk-taking. Telling the stories using anecdotes, analogies, and
demonstrates successful risk-taking. This seems to set the stage (Bethel, 1995). One place could occur in a setting described by Lambert, Walker, Zimmerman, Cooper, Lambert, Gardner, and Slack (1995). Individual or groups of teachers get together and tell stories. Lead by an individual facilitator, staff members collaborate as they retell and relive stories from the classroom of things that worked and didn’t; how children were learning. The stories give insights into a variety of aspects of teaching and learning (Manz & Sims, 2001).

The principal must encourage teachers to organize into areas such as study groups, focus groups, and peer coaching. The principal must foster creativity and openness, establish risk-taking and flexibility as establish norms (Fullan, 2001). It is up to the principal to model facilitative leadership so that teachers are more likely to learn to provide facilitative strategies within their own groups (Maxwell, 1995, 2002). Today’s principals should provide individuals with opportunities to take risks in a non-threatening environment. In addition, they develop leaders when assuming new professional strategies with teachers such as roles as “facilitators, inquirers, reflective practitioners, and human developers. ... This is done in an environment that practices cooperative engagement and collaboration” (Combs, Miser, & Whitaker, 1999, p.137). (a) Acknowledge those are have gone above and beyond what is expected, measuring progress by individual growth. (b) Recognize effort. A positive environment is not a competitive one. It is important to recognize those members who step out of their comfort zone. (c) Recognize individual and teams. High achievers are usually more than willing to share the glory. It is acknowledging group efforts that becomes equally important
The next stage is the support stage and begins with the recognition that teachers need support from principals and other teachers who emerge as teacher-leaders (Combs, Miser & Whitaker, 1999) describes three specific needs. (a) Emotional support is needed for people so they have someone to turn to when things are difficult. A servant-leader will often take on the role of mentor. (b) Physical support is also necessary. This means that there should be support for members of the organization to regenerate themselves with their families and their worlds outside the job. They quote Greenleaf who said, “An institution must firmly establish the context from people-using to people-building” (p. 143). (c) Spiritual support is also necessary. This takes the form of hope. It is hope for the future. Servant leaders must make sure that the staff knows that what they are doing is valuable and makes a difference.

It is the principal-researcher’s position that servant leadership does not have to mean only the principal in the servant leadership role. Teachers can serve the same role for their colleagues. The servant-leader/teacher must walk a very tight wire because one can’t demand or expect of people what they can’t give. It is important to remain sensitive to how much risk a staff member can take.

Schlechty describes the necessity for building a coalition as a team. He further analyzes team dynamics as teams are often groups of individuals working in parallel. Building teams requires a common goal, a purpose for existing (Manz & Simms, 2001; Maxwell, 2001). If groups have difficulty working together, they need a real problem to solve. There is much learned by a team who works through a difficult time.

The need to keep talented teachers in classrooms and schools is well known.
Providing lead or master teacher opportunities recognizes the potential for those who could become mentors, assists in maintaining the vision, and develops professional growth. (Guiney, 2001; Maxwell, 2001; Smylie, 1997; Troen & Boles, 1992; ).

Manz and Sims (2001) reinforce the need to provide a climate where motivation came mainly from the employees and their team members. Schlechty (2001) also emphasizes the need to give as much credit as possible to those who work on projects regardless of whether or not the project reaches the level of success predicted.

People who make contributions to the future of the school, who take risks, step out and take the lead, should be celebrated as those who understand ways for the school to realize its vision. Staff members want to be assured that he or she is a respected intellect and a valued colleague. Everyone wants to be involved and committed. (Schlechty, 1990; Sarason, 1996).

Qualities and Attitudes

Many researchers recommend the need to establish the norms of behavior for teachers and administrators (Blase & Blase, 2001; Blase & Kirby, 2000; Fullan, 1993; Sergiovanni, 1992. (a) How will staff resolve conflict? (b) How will staff address and solve professional problems? (c) How will staff share information about students? (d) How will staff communicate to third parties about other staff members? (Darling-Hammond, 2003) suggests that when norms are made visible and arrived at through consensus, they should be displayed, as in a staff handbook, and reviewed during staff meetings.
The attitude of the leader, combined with a positive atmosphere in the organization, “can encourage people to accomplish great things” (Maxwell, 1995, p. 18). Momentum is generated through consistent accomplishments. Leaders must understand the importance of momentum. To receive the “most value of momentum, leaders must: (a) develop an appreciation for it early; (b) know the key ingredients of it immediately; (c) pour resources into it always” (Maxwell, p.18). “The fundamental characteristic of modeling leadership is that learning takes places not by actually experiencing self-leadership but by observing the self-leadership of another” (Manz & Sims, 2001).

Maxwell (1995) identifies the qualities that he considers constitute a “dream team” (p. 136):

1. Team members care for each other. In this way team bond and become a cohesive unit.
2. Each of the team members function as a single unit, they know what is important. Each team has a common goal and purpose.
3. The ability to communicate with one another, not only among the team members concerning what is important to the team but with each other.
4. Growth is important and necessary and is the next step in the team building process. The growth should include shared experiences and time together so teams can bond. It is up to the teacher leader to ensure that people grow both personally and professionally, together.
5. When people work together, toward a common goal, and get to know each other, they learn to accept each other’s unique qualities. The result is a team that
fits together.

6. Once mutual trust develops team members place their own needs below those of the rest of the team.

7. After each of the preceding steps is achieved, people begin to identify their specific role on the team. By this time they know what needs to be accomplished and how each of the team members will fulfill their roles.

8. One final step in the development of a dream team, occurs when the team understands what is happening within the organization. The teacher leader must keep all of the players informed. The leader checks on other team member’s progress and listens to determine how the team stands, so the leader is in a better position to know what it will take for the team to succeed.

9. Finally, Maxwell identified that a winning team is willing to give of their time and energy to make the team better.

Groups of new teachers, made up of five or six beginning teachers and one teacher leader, meets two times a month. During this time lead and novice teachers problem solve any issues that are of concern. This group is an important support system for beginning teachers (Maxwell, 1995).

There are other conditions to support and sustain teachers in leadership positions according to Lambert (2003); Lieberman (1992); Maxwell (2001); Troen and Boles (1993). Teachers as leaders should occur in the school’s mission and accepted as part of the school’s culture. Teachers will more likely take on leadership roles if provided with time to experiment, reflect, develop, and create common interest groups. Finally, leaders
must receive the support to develop their own skills and abilities as well as learn skills relating to working with their colleagues.

National Board Certification

One important addition to the support for potential teacher-leaders comes in the form of National Board Certification. In 1993, the first groups of teachers in California received advanced certificates. NBC teachers are judged by peers as accomplished educations; make sound professional judgment about student learning; and act effectively on those judgments. National Board Certified teachers demonstrate a high level of knowledge, skills, dispositions and commitments (National Board for Professional Teaching Standards, 2001). The National Board Certification process is constructivist in nature.

National Board’s five core components include:

1. Teachers are committed to students and their learning.

2. Teachers know the subjects they teach and how to teach those subjects to students.

3. Teachers are responsible for managing and monitoring student learning.

4. Teachers think systematically about their practice and learn from experience.

5. Teachers are members of learning communities (p. 1).

Teacher leaders emerge as a result of the process. Ninety-one percent of the
National Board Certified Teachers surveyed said that the certification has positively affected their teaching practices. In *Leading from the Classroom*, a 2001 survey was conducted by Yankelovich Partners. It revealed information concerning the role that National Board Certified Teachers demonstrated in future professional endeavors. Many were receiving national recognition as leaders. They are asked to share their special skills with others, and demonstrate teaching expertise. They are taking the lead in developing, implementing, or testing new or improved programs, instructional strategies, or curriculum for students and seek grants to support such programs. They are using National Board’s standards for dialogue when describing best practices in instruction, curriculum, and assessment to their colleagues. Many NBC teachers advance the teaching profession by helping other teachers become Board Certified (National Board for Professional Teaching Standards, 2003).

The survey conducted by Yankelovich Partners report that 99.6 percent of National Board Certified Teachers said they are involved in at least one leadership activity—and on an average, National Board Certified Teachers are involved in almost 10 leadership activities. Twelve percent said they have been consulted as policy experts on issues regarding teaching and learning, eighty-two percent took on this role after achieving certification. Twenty percent of Nationally Board Certified Teachers who serve on a committee or work for the U.S. or a state department of education, seventy-three percent took on this role after achieving certification. Additional data that demonstrates Nationally Board Certified Teachers’ roles as teacher-leaders involvement include:

1. Mentoring or coaching candidates for National Board Certification (90%)
2. Mentoring or coaching new or struggling teacher (83%)

3. Developing or selecting programs or materials to support or increase student learning (80%)

4. School or district leadership (68%) (p.3).

Challenges

There are challenges that a teacher-leader experiences unless specific groundwork is laid. A study conducted by Lee, Dedrick and Smith (1991) found that teachers often experience problems and frustration if their roles are not well defined. Teachers need to develop and determine their own roles with principal support if they are to feel successful. Without that support teachers often meet resistance from other teachers who want to maintain status quo.

Another study by Wilson and Daviss (1994) identifies the views of teacher leaders and the challenges they faced. (a) The label of leader could set a person apart from their peers and stifles the ability to bring about substantive change. (b) Leadership generally is perceived as the responsibility of one person, who also determines that he or she is the mouthpiece of the group. Given a strong group of people, this could be problematic. (c) As a group teachers should have ownership over the initiation and implementation of change. (d) Participatory decision-making is important. Each teacher should feel ownership in the organization.

Group work is difficult. There must be the will to work together or the groups will fall apart. Leaders need to know the strength, weaknesses, and tendencies of each of

Teams and individuals need a high group emotional intelligence (EI). Developing relationships, both inside and outside the structure of the organization becomes important. When they know each other on a personal and informal level the emotional intelligence based upon mutual trust, a sense of group identity, and a sense of group efficacy become the foundation for cooperation and collaboration (Goleman, 1998; Elisa, Zins, Weisserg, Frey, Greenberg, Haynes, et. al. (1997).

Focus on student growth

The primary focus of teacher and administrative interaction should be the students’ well-being (Eisner, 2002; Lambert, 2003). Effective principals work in concert with teachers to enhance teacher and student learning (Bolman & Deal, 1997).

Teachers own research and discussion with colleagues create an environment where a school becomes a research institution primarily because teachers have access to important information about student development. Within that context teachers can analyze, collect, and use data to drive instructional decisions (Brooks & Brooks, 1993, 2000; Gagnon & Collay, 2001; National Research Council, 2000).

Individually and collectively teachers can become the leaders of groups that analyze student data in order to provide and make sense of the information, to identify trends and subgroups. Then, a teacher leader could facilitate the ways in which strategies
could be modified and adapted to those subgroups (Fullan, 2001).

The most important goal of any leader, including teachers as leaders, must center around the improvement of student work and creating an environment where students are engaged in high quality, engaging work (Schlechty, 2001).

The success of moving toward developing better methods of teaching and learning depends on giving the power to teacher-leaders to “initiate, shape, and steer innovation to those responsible for making change work; and bringing teachers together to leverage one another’s hard-won experience” (Wilson & Daviss, 1994, p. 167).


There are many ways that ultimately all teachers can be leaders of their colleagues according to McEwan (1998).

1. Mentoring and coaching novice teacher
2. Collaborating with all staff members regardless of personal affiliation or preference
3. Learning and growing with a view to bringing new ideas to the classroom and school
4. Polishing writing and presentation skills to share knowledge with others
5. Engaging in creative problem solving and decision making with increased student learning as the goal
6. Being willing to take risks in front of peers
7. Being willing to share ideas, opinions, and evaluative judgments confidently with the principal (p. 101).

Summary

There is unlimited potential in an organization that recruits talent people, raises them up as leaders, and continually develops them. There are specific identified processes in order for a team to become success. (a) Articulate the values, generally with key team members that appear on paper. (b) Compare values with practices, make sure there is a match, and the effectiveness of team boosts the energy and effectiveness of the school. (c) Teach the values to everyone on the team consistently. (d) Practice the values. (e) Institutionalize the values by providing a forum to build and maintain team member’s personal relationship with each other. (d) Publicly praise the values (Maxwell, 2001).

Teachers experience personal and professional satisfaction when they help their school improve. When teachers feel the investments and membership in the school community, these positive experiences move into the classroom. They become professionals (Barth, 2001). When teacher leaders treat their peers as trustworthy, work with them in collaborative problem solving groups, and show an interest in them as professionals all members feel as if they are contributing to the organization (Combs, Miser & Whitaker, 1999).
The principal cannot be the only source of leadership. For strong, positive schools to sustain themselves, leadership must come from everyone (Deal & Peterson, 1999). If everyone in a school community engages in leadership then constructing meaning and knowledge becomes a collective goal (Lambert, Collay, Dietz, Kent & Richert, 1996). Collective meaning making (Senge, 1990) results in a strong collaborative community.

Developing an entire school where every teacher views their role as a leader requires authentic experiences. The principal’s role is one of facilitation. Decisions that directly affect the culture that comes from cooperative problem-solving groups produce leaders. When decisions become implemented, the staff experiences the results of their efforts.

Creating a culture of leaders requires a methodical plan on the part of the principal and the teacher leader. Leaders evolve through a developmental process. They must grow and recognize their value as a leader in a collaborative constructivist environment.
Chapter 3
Method

A single-site longitudinal case study method investigated the primary questions of this study. The use of qualitative research and the case study method for this investigation is consistent with the explanations of Denzin & Lincoln (1998); Fern (2001); Marshall and Rossman (1999); Merriam (1998); Morgan (1997); Stake (1995).

The chapter begins with the purpose of the study, followed by a rationale for the use of a qualitative and case study method. The study’s design is described, followed by the procedures used. The chapter ends with an examination of the data collection procedures.

Purpose of the Study

The purpose of this six and one-half-year longitudinal study was to examine teachers’ perceptions both of constructivism as an educational organizational change model and of developing a constructivist philosophy in an entire elementary school. The study examined the background and steps that evolved throughout the reform process.

Qualitative Research

Qualitative research concentrates on how individuals make sense of their world while interacting with others (Krueger, 1998; 2000 Merriam, 1998). In qualitative research, it
is important to understand the subjects’ perspectives (Denzin & Lincoln, 1998; Marshall & Rossman, 1999).

Merriam (1998) described two characteristics of qualitative research. Qualitative research reveals “how all the parts work together to form a whole. It is assumed that meaning is embedded in people’s experiences and that this meaning is mediated through the investigator’s own perceptions” (p. 6). Qualitative research focused on processes, and contained descriptions using the participant’s words as part of the findings (Merriam 1998).

An investigator usually spends substantial amounts of time with the participants. Stake (1995) described the basis for case study research. The investigator maintained that human’s construction and perceptions begin from external experiences. Many researchers view the outside world from the perception that all that is known is a result of an experience, nothing more. Another position prescribed to the notion that what is known is a result of “integrated interpretations, or rational reality” (p. 100).

Qualitative research requires inductive research strategies. Often the research findings result in the development of themes or concepts. Stake (1995) explains the need for the researcher to determine how much he or she plans to rely on coded data. He asks the question, “Will our assertions be based on frequencies of contingent happenings, or on narrative descriptions? ... An objective tally of incidents or with a description of events to bring out the essential character of the case?” (p. 29).
The Case Study Method

The aim of research is not to stand firm on one position or the other, but to understand that each human perceives reality in a different way. Some view the universe in very different ways, yet a common view will occur for many. Using a constructivist approach helps a case study researcher utilize rich narrative descriptions (Stake, 1995).

A specific characteristic of the case study method is the descriptive component identified by Merriam (1998) as a “rich, ‘thick’ description of the phenomenon under study that means the complete, literal description of the incident” (p. 28). According to Merriam (1998) a variety of methods for gathering data can be used in a case study. Instruments in data collecting such as checklists or survey items cannot capture the complex meaning involved in qualitative research (Merriam (1998).

Case Study Dimensions

Generalizability

The case study method is chosen when the researcher wishes to study a specific case in-depth (Merriam, 1998; Krueger 1998). The study involves only one elementary school, therefore, it is not logical to assume the study can automatically generalize across other school populations. However, there may be components from the study that would apply to other school settings.
Subjectivity

Prior beliefs, assumptions, and predispositions are a natural part of a researcher’s background of experiences that became part of the study. The researcher is the primary data collection agent and the documentation is interpreted through his or her particular theoretical position and biases. The researcher makes the decision on how to interpret the information (Marum, 1998). It is up to the researcher to include data that may be contrary to his or her beliefs. The analysis must be as objective as possible throughout the research investigation (Marum, 1998; Yin, 1984). The analysis of data would be approached as objectively as possible by the Principal-researcher.

The research site being studied is also the school of the Principal-researcher. The Principal-researcher will evaluate the data along with member checking, two independent code checkers, an empirical reader, and three peer examiners, explained in detail later in this chapter.

Reliability and Consistency

According to Merriam (1995) “reliability is problematic in the social sciences, simply because human behavior is never static” (p. 205). Reliability requires the study could be replicated and based upon the assumption that “there is a single reality and that studying it repeatedly will yield the same results” (p. 205). The assumption that a study can be replicated if the observations are the same, assumes that the results will also be the same. However, “replication of a qualitative study will not yield the same results” (p. 206).
Lincoln and Guba (1985) prefer to exclude the term “reliability,” because it does not seem to fit the current need in social science research, and instead refer to the terms “dependability” or “consistency” (p. 288). The rationale for that position results in the question, not about whether or not the results can be replicated, but rather if the results could occur again, given the identified data, and still remain clear.

Validity


In the case study method, internal validity is a “definite strength of qualitative research” (Merriam, 1998). Merriam continues.

In this type of research it is important to understand the perspectives of those involved in the phenomenon of interest, to uncover the complexity of human behavior in a contextual framework, and to present a holistic interpretation of what is happening (p.202).

Triangulation

Triangulation adds support for the reliability and internal validity of the study. Reliability and validity exist when the researcher recognizes the need for accuracy in
measuring and interpreting the meaning of data. In case study research, however, the issues are not as concise as in quantitative measures. Yet, researchers have an ethical responsibility to ensure that the data are analyzed according to well-organized and thoughtful interpretation (Merriam, 1998).

Triangulation protocols allow the researcher to go beyond repetitive collection of quantitative data and find the validity in observed data (Stake, 1995). The strategy for using at least three forms of data collecting increases both validity and reliability according to Denzin and Lincoln (1998).

Triangulation has a variety of meanings. For the purpose of this study the Principal-researcher will utilize the explanation by Denzin & Lincoln (1998). “Triangulation is a mode of inquiry. By self consciously setting out to collect and double-check findings, using multiple sources and modes of evidence, the researcher will build the triangulation process into ongoing data collection” (p.199).

It is important to recognize the value of presenting “multiple perspectives of activities and issues, discovering and portraying the different views” (Stake, 1995, p. 134). The first data set used for triangulation, were the reflection statements made by teachers as they responded to guiding questions. Reflections were obtained from teachers who volunteered to meet in the Media Center at the conclusion of the school year and write their responses to guiding questions (Appendix 3).

The questions were designed to solicit perceptions of teachers regarding their personal learning experiences during the year, as teachers and team members (Appendix 4).
Teachers identified their grade level. Names were optional. The questions were generated from some of the issues and concerns that developed in the Analysis of Dynamics of Change process (Appendix 2).

The purpose of recognizing each grade level was based on the Principal-researchers’ inquiry into whether or not growth and change occurred from one year to the other within each grade level. This activity occurred at the end of school year 2001-2002, and again in 2002-2003.

The second data set used for triangulation, are statements made during focus group interviews, to open-ended questions conducted by the Curriculum Resource Teacher (Appendix 6). In quantitative research, the instrument used would become the “proxy for what is really measured. By contrast, in focus group research there are no proxies” (Krueger, 1998 p.68).

Two sessions occurred during interview sessions. The first interview session was comprised of groups of teachers selected according to the number of years the teachers were employed at the school. For example, groups who taught at the school for five years, comprised one group, teachers who taught for three years comprised another group, etcetera. During the first session, conducted by the Curriculum Resource Teacher, the first 10-13 questions were asked, depending on the time for teacher responses.

Sessions were held after school for 45 minutes for each group. Each teacher was invited to participate (Appendix 5). Each of the 60 teachers attended the interview sessions.

The assumption raised by the Principal-researcher: Teachers who taught for the same periods of time would have different perceptions of their experiences. For example,
teachers who taught together for five years would have different perceptions than those who taught for three years, etcetera. However, teachers were from different grade levels regardless of their years of experience at the school.

At the conclusion of the first sessions when teachers responded to questions 1-13, the Curriculum Resource Teacher met with the Principal-researcher and discussed her conclusions. Groups of teachers who worked during the same years, seemed to dwell on only a few keys issues that they recalled, and the dialogue might include broader issues if the groups were reconfigured by teams of teachers. The Principal-researcher agreed that the last 5-9 questions remaining would occur by grade level teams.

These sessions required another 40 minutes for each grade level team. The discussions were held during times when the grade level of students went to “special area” classes of music, art, or physical education. This strategy generated richer dialogue, as described in chapters 4 and 5.

The final data set for the triangulation that was used is entitled, The Southwood Story (Appendix 1), and described by Denzin and Lincoln (1998) as “interpretive interactionism” (p. 335). The narrative description of a six and one-half-year study of the research question meets Denzin and Lincoln’s (1998) interpretation as “events and troubles that are written about are the ones the writer has already experienced and witnessed firsthand. The task is to produce richly detailed inscriptions and accounts of such experiences”(p.335).

Each of the three data sets was analyzed. A method of sorting written and verbal statements extrapolated from the teachers’ written reflections, focus group interviews,
and journal entries. Patterns, themes and subtopics were identified, coded, and placed on a grid for use as part of the triangulation process.

Member checking (Stake, 1995) occurred after the rough draft from the focus group transcriptions were completed by the Curriculum Resource Teacher. At that time, the transcriptions were returned to the teachers. Participants determined if the content reflected the intent of the original statements. In this way, each participant had the opportunity to validate the statements, correct any misconceptions, and check for accuracy (Stake, 1995). Teachers edited the transcriptions and returned them to the Curriculum Teacher. Then, the focus groups’ edited transcripts were given to the Principal-researcher for further review and analysis.

Two independent code checkers were selected by the Principal-researcher. They analyzed the coding, patterns, sub-topics and themes. They provided recommendations. One code checker is currently a doctoral candidate who has completed the Human Subjects Education requirements process from the Review Board at the University of Central Florida. He understands the procedures and techniques used in the interview process. The second code checker is a Nationally Board Certified teacher who recently completed her Master’s Degree from National-Louis University, where she analyzed data through the use of a coding system.

An empirical reader was selected, based on the recommendation of Stake (1995). An empirical reader was “useful because it reminds the writer both of privilege and constraint” (p. 126). The purpose of an empirical reader was to edit the document for readability and content, so that the text makes sense to the reader. The Principal-
researcher selected a high school English teacher to fill that role.

Three peer examiners (Merriam, 1998) read the documents to check for clarity and authenticity. The examiners were: one teacher, one guidance counselor, and one Assistant Principal, who worked at the research site for more than three years. Each of them, from the perspective of the Principal-researcher, read the documents from a critical position and provided honest feedback.

Overview of the Case

It is important for the researcher to provide the reader with a sense of being there. Many aspects of the physical environment become foundational to the meaning provided the reader and must be explained with particular attention to detail (Stake, 1995). In the case of the research site, the physical plant becomes important.

District and School

The Principal-researcher would study one research site: Southwood Elementary School, one of 104 elementary schools, located in Orange County, Florida, in the 13th largest school district in the nation. Approximately 6,000 new students enter the school system each year. The School District office is known as the Educational Leadership Center. Orange County School District is divided into five areas: North, South, East, West, and Urban Cohort. Southwood Elementary School is one of 38 schools in the South Learning Community. Each Learning Community is supervised by an Area Superintendent.
The research site, Southwood Elementary School, is a large urban elementary school comprising pre-kindergarten through grade five. The Principal-researcher opened the school in 1997 with 670 students. The population grew, through the period of the study, to 950 students by 2003. This research site is located in a subdivision with average to lower average income homes, with a diverse cultural community, and 80% of the staff with less than five years of teaching experience. By 2003, 12 of the staff achieved National Board Certification status, seven more candidates completed the process during the 2003-2004 school year.

The demographics of the school, in 1997, were as follows: 54% white, 38% Hispanic cultures, 3% African American, and 5% were from other cultures. In 2004, the population was as follows: 48% white, 42% Hispanic cultures, 3% African American, 7% were from other cultures. Fifty-four languages were spoken within the families of the school. Members of the 54 cultures were either recent immigrants, or first generation born in the United States. Thirty-three percent of the students were on free or reduced lunches. There was a 13 percent mobility rate in 2003.

Southwood Elementary School is a neighborhood school with middle to lower income homes in the Southchase subdivision. It is common for more than one family to occupy a home, or for a single mother or a family to immigrate to the school area and live with relatives. In 1997 the school was built for 720 students at a cost of 13.6 million dollars. By 2003, the population expansion required the addition of 13 modular (portable) classrooms. There was an average of seven classrooms for every grade level. The commitment to the arts provided six different programs for the students: (a) a vocal
music class that incorporated the use of rhythm instruments; (b) chorus for grades four and five; (c) a Yamaha electronic keyboard laboratory program; (d) art; (e) physical education; and (f) a stringed instrument program for grades four and five.

The research site at the elementary school is designed to accommodate groups of four classrooms surrounding a central planning room. The design provides a variety of opportunities for teachers to interact throughout the day, particularly those that share a common planning area. There are 11 clusters of classrooms.

The school population exceeds the ability to house every classroom within the main buildings. This requires portable classrooms, and creates a physical separation of some classes from their team members.

Research Questions

This case study was designed to describe and analyze a single-site of an elementary school. The six and one-half-year longitudinal study examined teachers’ perceptions both of constructivism as an educational organizational change model and of developing a constructivist philosophy in an entire elementary school. Teachers’ perceptions were viewed through the specific constructs most frequently appearing in literature relating to developing an organization: (a) philosophical foundations, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders. In order to complete the investigations, the following questions were answered:

1. What are the perceptions of teachers about constructivism as an educational organizational change model?
2. What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?

Research Design

For purposes of triangulation, the research design utilized the three data sources noted above and obtained from participants employed at the research site: Teacher reflections, focus group interviews, and the Principal-researcher’s six and one-half-year journal/story.

Written reflections, from teachers occurred during May of 2001-2002 and again in 2002-2003 utilized guiding questions. Focus group interviews, utilizing open-ended questions, were conducted in December of 2003. One hundred percent or 60 teachers participated during each data collection process. The Principal-researcher journal/story occurred from 1997-2004. The six and one-half-years of journals provided insight from the Principal’s perspective and either confirmed teachers’ perceptions or provided other views of the same situations.

Gathering and Organizing the Data

The organizations for the data sets were developed in the following order:

1. Identify common statements made by classroom teachers when they expressed their views about working in a constructivist school.

2. Identify clusters of common statement to find patterns.

3. Once clusters of statements emerged, return to the literature to determine
if the clusters, word phrases, or expressions, occur in discussions or research. Review the literature in Chapter Two, as well as additional sources. If the same word phrases occur, determine the sub-topic and theme within the literature that refers to the same type of statements.

Review the five constructs that most appear in the literature relating to organizations: (a) philosophical foundation that is constructivist, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders. Determine if the clusters of statements are part of one of these broader themes, or fit into a sub-topic.

Triangulating the data sources provided a way to determine the common elements in answering the research questions.

Teacher Reflections

A variety of descriptions provides a connection between theory, practice, research questions, and personal experiences, and create a “cycle of inquiry,” according to Marshall and Rossman (1999, p. 25). This is consistent with one set of data that was used--teacher reflections.

The Principal-researcher analyzed teacher reflections gathered under the following conditions and stated earlier. At the end of each year 2001-2002, and again at the end of the year 2002-2003, teachers gathered in the media center to write their reflections of the school year. The two years’ reflections revealed the impact of the fourth and fifth years the school operated.
Teachers were provided guiding questions although teachers would be encouraged to expand their answers. The Principal-researcher explained the purpose of teachers’ reflections. Teachers were told that this was an opportunity for the Principal-researcher to read and analyze their perceptions of the school year. It was a chance to think about what happened during the year as a teacher and team member. This provides a way to think about next year and ways to become even more successful. The school as a whole can then benefit from their experiences and support them in any identified area.

Teachers were then provided written and oral directions that encouraged them to express how they perceived their year.

Teachers were provided the following guiding questions:

1. How do you feel about this year and why?
2. What did you learn that made you a better teacher?
3. What did you learn that made you a better team member?
4. What are you looking forward to next year?
5. In what ways can the administrators provide additional support to you? (Appendix 4)

The Principal-researcher felt comfortable giving the teachers the questions, since the teachers knew that the Principal-researcher would analyze the results. Teachers were told they did not have to put their name on the reflections, but encouraged to put their grade level. The Principal-researcher stated that, by knowing the grade level, it could help identify if key successes, ideas, or issues were grade level specific; or if the statements reflected all teachers’ views. (Two teachers did not use their names, 59 put their names
on their work; all placed their grade level on their written responses). Teachers were instructed to write as long as they choose, and that they could leave whenever they were through.

The Principal-researcher left the room while the teachers wrote. The Curriculum Resource Teacher collected the reflections. All teachers wrote for at least 40 minutes, some for as long as 60 minutes.

Gathering data from sources within the research site provided authenticity to the study (Marshall & Rossman, 1999). The authors described methods for the study as having four focused directions: backward, such as reflecting over the past year; forward, as teachers examine their needs for the upcoming years; outward, as the participant describes their experiences within the existing environment; and inward as teachers explain their feelings, hopes, and personal experiences. This is consistent with the decision to use teacher reflections as one of the sources of data.

Focus Group Interviews

Focus groups interviews expanded the options when used in matching research questions with qualitative methods (Morgan, 1997). The specific feature of a focus group provided the researcher with the opportunity to have the results stand on their own. The advantage of focus group interviews rests in the ability to gather a small group together and to learn about their experiences and perspectives. From a researcher’s perspective, the opportunity to observe the experiences and ideas of a group as they interact with each other provides more in-depth opportunities to view how the participants understand and
interpret their situations (Morgan, 1997).

Although focus groups can become the primary source of data, they can also be combined with other sources as part of an ongoing research study (Morgan, 1997). “The key defining feature of self-contained focus groups is thus not the absence of other methods, but, rather, the ability to report the data from the focus groups as a sufficient body of evidence” (p. 21). “There is a widespread consensus that focus groups are valuable techniques for collecting qualitative data” (p. 71). Based upon this information, the Principal-researcher utilized teacher focus group interviews as a method to gather valuable teacher perceptions.

Data Source from Focus Group Interviews

The Principal-researcher identified a staff member as the interviewer. The Curriculum Resource Teacher was selected because of her knowledge of the school and her understanding of the school’s history. In this particular case, the interviewer served as a teacher for three years, moved to another school for two years, and returned in the position of Curriculum Resource Teacher. The rationale for choosing her was based upon the notion that the participants might be more comfortable, open, and honest with a colleague they knew. The Principal-researcher believed she would be the most logical person to solicit in-depth and honest responses. Teachers appear to trust her. She conducted interviews utilizing questions generated by the Principal-researcher.

Based upon the research of Morgan (1997) and Krueger (1998), the Principal-researcher reviewed the questions with the Curriculum Teacher. The Principal-researcher
relied specifically on the work of Krueger’s *Analyzing & Reporting Focus Groups Results* (1998) to discuss the interviewing process with the curriculum resource teacher.

The Curriculum Resource Teacher provided teachers with the written request for participation. The letter contained detailed information concerning the intent of the study group meetings, in advance of the designated meeting time.

The written request contained a detailed description of the purpose of the focus group meetings and contained several parts: (a) the purpose of the meeting; (b) the explanation that teacher participation would be on a volunteer basis; (c) participation, in no way, would effect their evaluations, assessments, or job status; (d) participants would know that their comments would be audio taped, for the purpose of accurately identifying comments; (e) the Curriculum Resource Teacher would transcribe all the interviews before providing the Principal-researcher with the collective statements; (f) the Curriculum Resource Teacher would not identify anyone by name; and (g) questions that would be used as discussion points would be provided (Appendix 5).

At the time of the focus group meeting, the Curriculum Resource Teacher again explained the purpose of the meeting. Teachers received notification that their participation would in no way effect their assessment, evaluation, or employment. Teachers knew that the discussions were tape recorded. The teachers also knew that the Principal is the researcher who would also review the tape recordings, analyze the responses, and find common patterns and themes, among the comments made by the focus groups (Appendix 5).
From this information, teachers understood that the purpose would be to hear their perceptions of the various aspects of what occurred in the school, as the principal-researcher utilized a constructivist process as an organizational change model, and created an entire elementary school that is constructivist and described in detail in Chapter Two. It was an opportunity to hear how the teachers and administrators could continue to improve, make suggestions about ways to continue providing a learning environment that creates a community of constructivist staff members, and identify strengths and weaknesses in current practices.

Additional information provided the teacher stated that the teacher’s candor, expertise, collective wisdom, and insight, would be grouped according to similar comments, from other focus groups. Patterns were formed and themes developed. Each group met in the Media Center on predetermined dates. Teachers were encouraged to reflect on the questions they received prior to the focus group meeting. The information included an additional purpose. Other schools attempting to create a change, especially to create a constructivist school, might benefit from teachers’ insight.

Each group was identified, based upon the number of years worked at Southwood Elementary School. For example, six teachers who worked at the school for the last six years became part of one group; four teachers, employed for the last five years; three teachers, employed for the last four years; 13 teachers, employed for the last three years, four teachers, employed for the last two years; and six teachers employed for the last year. The group employed for the last three years was divided into two groups of six in one and six and one-half in the other in order to more effectively conduct the interviews.
One subgroup was identified. This group consisted of three teachers, who left the school to work at another location, and were hired back at Southwood Elementary. A total of seven focus groups met. This number generally met the criteria of from 4 to 6 groups for focus group research (Fern, 2001). Focus groups were comprised of from four to seven members, consistent with the recommendations of Marshall and Rossman (1999).

The rationale for this configuration was based on the assumption that views may vary from one group to the other, depending on the length of time that teachers were part of the process of a constructivist philosophy. For example, those who are at the school for six years may have a perspective different from those who are at the school for one year, etcetera. The exception could be the group that returned to the school. They were interviewed to identify reasons why they, as teachers, returned.

The information was originally transcribed by the Curriculum Resource Teacher. Upon completion of the transcriptions, teachers received a copy to edit. They were given the time to determine if the statements they made accurately reflected their intent. They returned their comments to the CRT. The Curriculum Teacher made the recommended revisions. The CRT provided the Principal-researcher with the final transcribed documents.

The Principal-researcher began the analysis, first by reviewing the audio tapes and reading the CRT’s transcriptions. The Curriculum Teacher did not transcribe the audio-tapes word for word. Instead, phrases and key words were written. However, use of member checks to validate the audio tapes and respond to the transcriptions is consistent
with the comments made by Stake (1995).

    Audio taping is valuable for catching the exact words used, but the cost in making transcripts and the annoyance for both respondent and researcher argue strongly against it. … The amount of taped data a researcher can work with is very small. The researcher should develop skill in keeping shorthand notes and count on member checks to get the meaning straight (Stake, p.56).

    Within a few hours of the interview, the researcher should prepare a written facsimile, with key ideas and episodes captured. … Getting the exact words of the respondent is usually not very important it is what they mean that is important (Stake, p.66). (Appendix 6)

The Curriculum Resource Teacher recorded the responses on a form that contained each of the following questions. Large spaces were provided between the questions where the CRT could record the responses. A new form was used for each group. In the final sessions of questions beginning between number 10 and 12, there were seven in each focus group.

Focus Group Questions:

1. What professional experiences have provided you with an understanding of constructivist thinking and learning for both you and your students?
2. What are your perceptions regarding the school moving toward constructivist approaches?
3. Based upon your perceptions how did this occur?
4. What roles do you perceive to have developed in this process?
5. What roles if any did you and/or your team perceive they played in this process?
6. What roles did you perceive this administrator play?
7. What organizational and structural changes do you perceive took place?
8. What still needs to be done to keep on moving in the areas of role, process, and structures?
9. How would you improve this process?
10. How would you improve the structures?
11. What do you perceive has been the impact on your practice?
12. What do you perceive has been the impact on team collaboration?
13. What do you perceive has been the impact on your students?
14. What experiences do you perceive have provided you with the knowledge and experiences to take on leadership roles?
15. What is your perception regarding how much decision making power you have? regarding the implementation of the constructivism reform model and a constructivist philosophy?
16. What is the most important role that you perceive that you play in maintaining a constructivist philosophy?
17. What do you think is the most significant problem in maintaining a constructivist philosophy?
18. Given the opportunity to stay at the school, what reasons keep you at Southwood?
19. (Only used with the returning group of teachers). What are the reasons you chose
to return to the school to teach, after you choose to go to another school?

Principal-Researcher Journal/story:

Once the Principal-researcher accepted the position of opening a new school in Orange County, Florida, it became clear that the task was enormous and the waters were untested regarding a chronology and narrative of life in an elementary school. Beginning the day of appointment to the position, the Principal-researcher began a journal. Throughout the next six and one-half-years, journal entries elaborated the many aspects involved in creating a constructivist school.

The process of utilizing the case study method, and qualitative research, is identified by Stake (1995) when a researcher describes “in depth how things were at a particular place at a particular time” (p. 38). He continues by noting that “to the qualitative scholar, the understanding of human experiences is a matter of chronologies more than of causes and effects” (p. 39). This is consistent with the determination to use Principal-researcher’s journal/story as part of the investigation.

Utilizing journal entries for qualitative research is consistent with the description of Merriam (1998). A characteristic of qualitative research develops when the researcher is the main collector of data and the subsequent data analysis. This process often requires the researcher to physically go to the site to observe the “behavior in the natural setting” (Merriam, 1998, p. 7). In the case study reported, the Principal-researcher was in the natural setting for the duration of the six and one-half-year study, and remains there in 2004.
The complexity, over time, of the six and one-half-year research of this study, remains consistent with the explanations that are provided by Merriam (1998) and Stake (1995). A case study includes as many variables within the research site as possible and describes the in-depth interaction, generally of a period of time. In this way there are unique insights into the history of how things came to be, when using a case study approach to the research. The Principal-researcher’s six and one-half-year narrative (Appendix 1) would fulfill this specificity by telling the story and engaging the reader in the details surrounding the study.

The use of the case study method, and qualitative research, provided a link between the method of research and the research questions: Teachers’ perceptions about constructivism as an educational organizational change model and developing a constructivist philosophy in an entire elementary school. Focused questions regarding teachers’ perceptions and written documentation by the school stakeholders provided in-depth and authentic perspectives. The process of analyzing written and verbal responses to questions was consistent with those described by Merriam (1995), Stake (1995), and (Fern, 2001), Morgan (1997), and Krueger (1998).

Principal-researcher’s journals provided background information and a comprehensive view of the research site during its formative years beginning in 1997. Journal entries were used throughout the six and one-half years of the study. Teachers’ perceptions regarding the emergence of a constructivist philosophy was generated from teacher reflections written at the end of the school year in 2001 and again in 2002. Questions directly related to research questions identified earlier, were asked during the
focus group interviews in December of 2003 generated direct

Following the recommendations of Knodel (1993), the Principal-researcher used the same data organization methods for each of three different data sets collected from focus groups, written reflections from teachers from 2002 and 2003, and the Principal-researcher narrative, using the following procedures:

Teacher Reflections, Data Collection, Organization, and Analysis Process

Teachers identified their grade level on the written reflections. The intent by the Principal-researcher was to determine if comments were grade level and team specific. The year of the reflection was later identified as part of the grid to see if comments were year specific.

1. Identified statements and phrases from teachers’ written reflections. First, for year 2001-2002, then again for years 2002-2003, to determine if the responses differed from one year to the next.

For example:

Question 1. What did you learn to be a better teacher?

1. Phrases were listed

2. Key words and phrases were underlined

2001-2002

<table>
<thead>
<tr>
<th>Grade</th>
<th>K (kindergarten)</th>
<th>grade 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I felt better about myself</td>
<td>I’ve grown so much this year.</td>
</tr>
<tr>
<td></td>
<td>We all got along on our team</td>
<td>I’ve learned new strategies</td>
</tr>
<tr>
<td></td>
<td>Team made more effort to get along</td>
<td>I was “enveloped” in support</td>
</tr>
</tbody>
</table>

grade 2

grade 3
I’m fortunate to be part of this team. I changed my attitude to more positive.
I learned the importance of a strong professional environment. Learned flexibility with my instruction.
I’ve been mentally stretched.

The Principal-researcher identified words and phrases that began repeating. For example, when teachers repeated statements that related to working together such as “we plan together, we get together,” etcetera, those statements later became part of a larger grouping—collaboration. Initially, however, once the same statement was repeated, a single entry that identified the grade level of the respondent was placed beside the statement and later on a grid in the column identifying the year.

Organizational Grid

An example of a grid placed statements into categories and grade levels (instead of tally marks) for individual statements. In this example, statements were identified and placed in possible categories. Then, categories became narrowed until the most dominate category emerged. This method provided a system that determined if statements are more predominate in one year than the other, or if the grade level becomes identified in one year more than in another.
Table 1

Organizational Grid

<table>
<thead>
<tr>
<th>Possible category</th>
<th>2001-2002</th>
<th>2002-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork/team building</td>
<td>--Our team gets along this year K,K,K, 1,1,3,</td>
<td>--Becoming a family of professionals 4</td>
</tr>
<tr>
<td>Teachers as Leaders</td>
<td>--Team helps each other 2,3,4,4</td>
<td>--Some on the team are experts and help me K,K,1,1,1,3,5</td>
</tr>
<tr>
<td>Trust building</td>
<td>--We’re becoming family 5,5,1,1,3,3,3,3, 4,4,4,</td>
<td></td>
</tr>
</tbody>
</table>

The Principal-researcher used a grid as a way to sort similar responses, by data source, and the year the response occurred. Possible themes or sub-topics were placed in one portion of the grid (possible category). Later, final organizing themes and sub-topics were added. The use of the matrix follows the suggestions of Knodel (1993), and described by Fern (2001). “This matrix may be as detailed as the researcher cares to make it” (p. 228). “Once the overview grid is complete, the researcher can verify that the same issues were addressed by each group and that the positions taken on these issues are the same across similar groups” (p. 229).

Focus Group Interviews--N=60

Step 1. Identify statements

Step 2: Underline key words and phrases

Examples of organizing the data:

Question 1. What professional experiences have provided you with an understanding of constructivist thinking and learning for both you and your students?

Teachers employed since 1997-1998:
The Principal asked me about my philosophy and my expectations that made me look at who I was and think about where I wanted to go.

There is no micro-managing. I must think about why and how I do things. I feel empowered.

When we wrote our thematic units over the summer it made me think more about raising students thinking to a much higher level, and design higher levels activities.

Teachers employed since 2000-2001:

I keep learning

I have the freedom to experiment and try new things.

Understanding our personalities is helpful. It helps me understand me and my team members better.

I connect with team members and work together; we construct our own knowledge as we go

Listed single statements/phrases, looked for patterns, identified commonly used words and phrases that cluster to form identifying indicators or possible categories.

<table>
<thead>
<tr>
<th>Phrases</th>
<th>Indicators/Possible Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt better about myself (K)</td>
<td>self esteem</td>
</tr>
<tr>
<td>We got along (K, K)</td>
<td>support, getting along</td>
</tr>
<tr>
<td>(two kindergarten teachers, same grade stated the same thing)</td>
<td></td>
</tr>
<tr>
<td>Grown so much 1, (mentally stretched) 2</td>
<td>learning</td>
</tr>
<tr>
<td>(grade 1 and grade 2 teacher)</td>
<td></td>
</tr>
<tr>
<td>Learned new strategies (4)</td>
<td>learning from others</td>
</tr>
<tr>
<td>“enveloped” in support (5) support (2)</td>
<td>team support</td>
</tr>
<tr>
<td>Part of team (3, 5, 5)</td>
<td>importance of teams</td>
</tr>
<tr>
<td>Importance of strong professional environment</td>
<td>professional environment</td>
</tr>
</tbody>
</table>
Changed attitude-positive  
Flexible  
I think about how and why 2, 2, 3 (two second grade teachers, 1-3rd) responded with similar comments  
Empowered  
Asked about my philosophy  
Thematic units-thinking  
Students thinking – higher levels  

Principal-researcher journal/story: 

A summary of six and one-half-years is divided according to Year One, Year Two, Year Three, and etcetera. Once a few key phrases and words began emerging, the Principal-researcher found corresponding entries in the journal/story to illustrate the identified comments from the Principal-researcher’s perspective. Although statements often overlapped from one category to the other the Principal-researcher determined the most dominant category based upon the context of the written statement. This process utilized the triangulation process for validity and reliability. 

Year 4—Teachers’ employed in 2000-2001  
Focus on creating a community of learners  
New teachers caused unrest
The philosophy of constructivism is slowly becoming internalized by the staff philosophy. Everyone must own the change change collaboration. Self-assurance needed for the teachers self esteem.

Key words began to cluster from all three data sources. Clusters were created based upon common statements. Clusters of words were arranged and rearranged until the clusters generally favored a grouping. Often words or phrases occurred in more than one category, however, the Principal-researcher generally selected one dominant category in order to assist in identifying themes and possible sub-topics. The decision about a category in which to place a word or phrase was often contextually based. For example, the following words or phrases occurred in the data sources:

1. learning new ways of teaching math
2. understanding
3. concept-based units-higher level of thinking
4. learning new strategies
5. feel more self-confident about my teaching

Code checkers reviewed the clusters at different times to determine additional groupings or modify the Principal-researcher’s conclusions. The example above illustrates a case in point. Phrases one through four clustered around ideas of both curriculum change and constructivist beliefs. However, the checkers determined item five, although relating to curriculum, fit best in the grouping that related to self-esteem. That item was removed from this cluster and placed in another one. A new cluster of words formed.

An additional theme evolved based upon a review by the code
checkers. It was noted that several references were made regarding how teachers “felt.” Feeling words were identified and the additional theme of Affect was generated. At this point a sixth theme or construct was added to the identified constructs. The Principal-researcher added this additional construct to all subsequent discussion. However, there is limited research on the specific topic of Affect. This construct is generally embedded within discussions of other constructs and appears in the works of such authors as Maxwell (2001) and Palmer (1998).

Identifying themes and subtopics

Once clusters of words were identified around a broad idea, the Principal-researcher returned to the literature. During the literature search, the identified clusters of words were examined within the literature. The same clusters were checked in Chapter Two for identification. For example, when “collaboration” occurred in the literature, the Principal-researcher analyzed the contextual topic used by the authors.

Collaboration is a function of teacher leadership that occurs when teachers work and plan together, as well as discuss students’ work (Barth, 2001; Maxwell, 1995; National Research Council, 2000). Collaboration fits under the broader theme of Teachers as Leaders in Chapter Two. Collaboration became a sub-topic under the broader theme of Teachers as Leaders. In this example, the Principal-researcher continued to go back and forth among key words, finding supporting literature, and identifying clusters of common words, and the accompanying sub-topics and themes, in order to better categorize and identify key statements.
When statements did not obviously fit a specific category, the Principal-researcher examined past practices at the research site. For example, the Principal-researcher determined that when collaboration occurs, someone among the teachers initiates the process; therefore, a teacher takes on a type of leadership role at that point.

Another step included identifying each of the initial constructs that the Principal-researcher examined in Chapter two: (a) philosophy of constructivism, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders and determine if any of the clusters of statements began to develop under these five possible themes. A sixth theme/construct was added after code checkers added one more—affect.

As the statements began to cluster, the six constructs became identifying themes. The identified theme was assigned a code letter. If a cluster of statements were a sub-set of the topic, that statement became a sub-topic, and then a numeral was assigned. For example, when a teacher commented that she “took on more leadership roles this year,” that statement became the indicator—teacher leadership. That statement reflected a theme--Teachers as Leaders. Therefore, that statement was coded with a TL.

Collaboration, however, was part of the concept of Teachers as Leaders and identified as one sub-topic, or TL 1. The teacher identified her grade level on her written reflections with a K, as a kindergarten teacher, the year 2001-2002. The researcher placed a K, for kindergarten in the correct year on the grid, by the appropriate sub-topic of collaboration.
Table 2:

*Grid—Reflections, Focus Group Interviews, Principal-researcher’s Journals.*

Grid: Data Source-reflections--grade level; year employed

Data Source-focus group interviews--2004

Data Source-Principal-researcher journals—1997-2004

List individual statements. Clusters of like statements began to form into common topics.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration</td>
<td>We work together K, K, K (indicates three kindergarten teachers made a similar statement)</td>
<td>I love my team we get along well. K,K, K, K, 1, 1, 1,1,2, 2, 2, 3, 3, 3, 4, 4, 4, 4, 4, 4, 5, 5, 5, 5, 5, 4, 4, 4</td>
<td>’97–’98 There is constant dialogue—it is so important. Our team works so well together.</td>
<td>’00–’04 The ultimate goal is that teachers develop as leaders so they can help pull their teams together.</td>
</tr>
<tr>
<td>A Affect</td>
<td>K,K,K,K,K,K,1,1, 1,1,1,2,2,2,3,3,3, 4,4,4,4,5,5,5,5,5</td>
<td>Teachers getting along are so important in order to build a coherent instructional program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Theme / Sub-topic</td>
<td>identifying indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP</td>
<td>Constructivist Philosophy</td>
<td>Use of the vision, higher order thinking, thinking “outside the box,” non-scripted curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 1.</td>
<td>(Sub topic 1.) understanding the concept</td>
<td>Thinking about thinking; metacognitive skills; probing to think on my own; figure things out; not given an answer, but justify my solution; find the problem; explain; constructing our own knowledge;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>overlapping indicators exist between the concept of constructivism, problem solving, and decision making</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 2.</td>
<td>Problem solving – decision making</td>
<td>Questions, find ways to make it better, Principal asked what I want to do, think first, plan, answers not given.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 3.</td>
<td>Reflective Practice</td>
<td>Discuss what happened, explain why, do it better next time, examine, pre-requisite skills, dig deeper, look back-and then look forward.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 4.</td>
<td>Risk-free environment</td>
<td>Try it out, experiment, if it doesn’t work, try again, work it out, and think creatively.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP 5.</td>
<td>Learner-centered</td>
<td>How children learn, think of the kids first, observe, listen, watch, and provide opportunities, life-long learning, creative approach, kids can explain their thinking; create a rule.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Change</td>
<td>Movement, disruption, anticipation of something being different than before</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
C1. Evolution of curriculum

Understanding—math, integrated units, any subject area that changes as it is learned, finding better ways to instruct-
Resistance/excitement, adding on / substituting new strategies

C2. Change of models

Vertical team concept-- resistance/excitement
Looping concept – resistance/excitement

C3 Change of teams

Disruption when someone leaves/joins the team, teachers choosing to move seen as negative/positive experience

P Perception

The use of the word “perception” is limited in the research.
(Chapter Two)

Believing, perspective
Statements relating to job satisfaction
Describing incidences that occurred.
Statements often overlapped with Affect

L Leadership

(Chapter Two)

Focus on the Principal – negative/positive experiences.

L1 Support of teachers

Feel supported, provided with ideas, suggestions, help with students, help with parents, not threatened by interaction, empowers us, trusts us to make decisions,

L2 Feeling appreciated

Spends time making teachers feel appreciated, recognized-publicly and in private, complimentary,

L3 Provides a professional work environment

Provide materials and supplies because teacher need them, values input into what teachers want, provided time to work with team mates, feel comfortable, safe.
The assumption by the researcher was that all items identified, relating to team building belonged in this section. If someone initiates a group getting together or organizes a group project, then a leader is recognized.

Collaborating, getting together as a group, planning together, working together,

Like my team, like working with my pod members, work well together, get along, know value of communication, became a team

Willing to ask for help, teachers help me,

Understand each other, understand myself, easier to work with people, laugh

FISH helped me, attitude, and play, make their day, importance of positive attitude.

Leadership, mentor, and committee work/chair.

Feeling words: happy, love, excited, school as a family

The Principal-researcher examined the frequency of similar responses by the teachers during focus groups, teacher reflections, and in the Principal-researcher journals, that provided common beliefs and issues among all the stakeholders in the school. The Principal-researcher journals would examine consistent beliefs and add additional
perspectives such as those suggested by (Stake, 1995) as “bringing out the essential character of the case” (p. 29).

The Principal-researcher’s journals were analyzed utilizing the same process as in teacher reflections and focus group interview statements. As stated earlier, journal entries for years 1997-2000 were background experiences that provided insight into the history and events that lead up to year three at the research-site, when the philosophical foundation of constructivism began formulating. The Principal-researcher listed statements that provided specific information and interactions that might form patterns at a later time. Statements that appeared in narrative accounts of events and situations were also listed. Examples of triangulation, utilizing journal/story accounts are also provided in Chapters 4 and 5.

Data Analysis

The Principal-researcher analyzed and examined each of three primary data sources: focus groups; end-of-the-year reflections; and Principal-researcher’s six and one-half-years of journals. The analyzed statements were clustered into common patterns and topics. Broad themes are consistent with those identified in Chapter two: (a) philosophy of constructivism, (b) change, (c) perception, (d) leadership, and (e) teachers as leaders, and later in the research process (f) affect. Those statements that are not consistent from one group to the other were analyzed for additional insight.

An example of the grid described above provided a way to visually determine
consistencies among statements and across years in which the statements occurred. For example, reflections statements occurred during May of 2001-2002 and 2002-2003. Focus group interviews were conducted in December of 2003. The Principal-researcher journal/story occurred from 1997-2004.

Summary

This chapter contained the purpose and research questions, discussed qualitative research, and case study methodology. Qualitative measures were used since it provides a greater understanding of the research question (Denzin & Lincoln, 1994). Key issues such as validity, reliability, and triangulation were also discussed.

Consistency and reliability were provided with additional reviewers of the text and data coding. Member checking occurred. Teachers in focus groups received copies of the audio tape transcripts for editing purposes. Two independent code checkers reviewed the data from the written statements that were extrapolated from the teachers’ written reflections, the focus group interviews, and the journal/story. An empirical reader edited the Principal-researcher’s documents for clarify. Three peer reviewers read the documents for clarity and authenticity.

Research focused on triangulating three data collections sources. First, teachers’ two-year reflections provided insight into how teams and individual teachers worked to improve and to sustain the constructivist culture of the school. Second, teachers participated in focus groups which centered on teachers’ perceptions and insights
concerning creating a constructivist school. The last data source came from the Principal-researcher’s written chronicles during six and one-half-years of the study. The story provides details and insight into the events and experiences that often support teachers’ perceptions, and add the dimension from the Principal-researcher’s perspective throughout six and one-half-years.

The amount of text generated from the three data sources required a lengthy explanation concerning the organization of large quantities of written data. Further explanation occurred that described the finding of word and statement patterns, placing clusters of similar statements and words together that became identified as indicators or possible categories. A review of the literature and Chapter Two, verified that the constructs most frequently appearing in literature relating to developing an organization: (a) philosophy of constructivism, (b) change, (c) perceptions, (d) leadership, (e) teachers as leaders, and (f) affect, continued to remain the dominant themes based upon the three data sources.

Examples described clusters (indicators) that created sub-topics within a broad theme. This occurred when statements did not directly state the name of the theme within their explanation, but rather discussed a similar idea.

Conclusions

Analyzing dialogue and written reflections from the perspective of the classroom teacher and Principal provided important information when creating an organizational culture with constructivist educational practices. Teacher’s two-year reflections provided
insight into how teams and individual teachers worked to improve and sustain the constructivist culture. Second, teachers’ focus group discussions became a platform upon which teachers could express their individual and collective feelings and beliefs. These insights created substantive information that further supported the need to listen to teachers and analyze their perceptions throughout the process of a reform effort. Finally, an analysis of the Principal-researcher’s six and one-half-years of journals examines details and events that provided an in-depth understanding of teachers’ perceptions and a leader’s experiences.
Reporting the Data

Introduction

The purpose of this single-site six and one-half longitudinal study described and analyzed teachers’ perceptions both of constructivism as an educational organizational change model and of developing a constructivist philosophy in an entire elementary school. The study examined the background and steps that evolved throughout the reform process.

The purpose of this chapter was to report the data as they relate to the study questions: (a) What are the perceptions of teachers about constructivism as an educational organizational change model? and (b) What are teachers’ perceptions of developing a constructivist philosophy in an entire elementary school?

Research focused on three data collection sources: Teachers’ reflections written by each teacher at the end of the school year in 2002 and in 2003; focus group interviews from all teachers at the research site, gathered in 2004; and six and one-half years of the Principal-researcher’s journals. These data were organized according to the descriptions provided in Chapter Three, and reported later in this chapter.

The intent of answering the research question, based upon written statements from three data sources, provided the Principal-researcher with authentic dialogue from which
to draw conclusions providing authenticity to the study. Marshall & Rossman, (1999) describe methods for qualitative study as having four focused directions: backward, such as reflecting over the past year; forward, as teachers examined their needs for the upcoming years; outward, as the participant described their experiences within the existing environment; and inward as teachers explained their feelings, hopes, and personal experiences. This is consistent with the decision to use written and verbal insight from the three sources of data. A variety of descriptions provided a connection between theory, practice, research questions, and personal experiences, and create a “cycle of inquiry,” according to Marshall and Rossman (1999, p. 25).

Teachers’ Written Reflections

The purpose of using written reflections as part of the study relied on a teacher’s review of experiences during Year Three and Four. Each professional provided insight, comments, assessments, expertise, and perceptions to a discussion about the process and evolution of a school as it became constructivist. The first set of data was obtained from teachers’ reflections at the end of the school year for 2001-2002 and again in 2002-2003. Participation was voluntary, however, in both years, 100% (60 of the teachers present on the identified day) responded with their reflections. Each teacher focused primarily on the guiding questions provided for them (Appendix 4) although many expanded with additional statements.

Focus Group Interviews
The second data set used for triangulation, were statements made during focus group interviews conducted by the Curriculum Resource Teacher. In quantitative research, the instrument used would become the “proxy for what is really measured. By contrast in focus group research there are no proxies” (Krueger, 1998 p. 68).

Although focus groups can become the primary source of data, they can also be combined with other sources as part of an ongoing research study (Morgan, 1997). “The key defining feature of self-contained focus groups is thus not the absence of other methods, but, rather, the ability to report the data from the focus groups as a sufficient body of evidence” (p. 21). “There is a widespread consensus that focus groups are valuable techniques for collecting qualitative data” (p.71). Based upon this information, the Principal-researcher utilized teacher focus group interviews as a method of gathering teacher perceptions data.

The final data set for the triangulation that was used is entitled, “The Southwood Story” (Appendix 1), and described by Denzin and Lincoln (1998) as “interpretive interactionism” (p. 335). The narrative description, based upon the journals of the Principal-researcher over six and one-half years, meets Denzin and Lincoln’s (1998) interpretation as “events and troubles that are written about are the ones the writer has already experienced and witnessed firsthand. The task is to produce ‘richly detailed’ inscriptions and accounts of such experiences” (p. 335).

Each of the three data sets was analyzed. The Principal-researcher developed a
method of sorting written and verbal statements extrapolated from the teachers’ written reflections, focus group interviews, and journal entries.

Gathering and Organizing the Data

Organization of the data sets:

1. Identified common statements made by classroom teachers when they expressed their views about working in a constructivist school.
2. Identified clusters of common statements to find patterns.
3. Reviewed five constructs that most appear in the literature relating to developing an organization: (a) philosophical foundation that is constructivist, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders. Construct six, (f) Affect, was added after code checkers reviewed the data. Determined if the clusters of statements were part of one of these broader themes, created a sub-topic for those statements that did not specifically state the construct, but rather could be identified within one of the five constructs.
4. Reviewed the research to determine if other authors used similar expressions or statements in identifying a specific theme or idea. For example, Maxwell (1995) identified the behaviors of teacher leaders. He stated that teachers as leaders were ones who helped form relationships among their teams, while modeling the ability to build trust. Based on Maxwell’s work, the Principal-researcher identified trust building and forming relationships as a sub-topic of
Teachers as Leaders. The identified indicators fit into that sub-topic and theme. Determining the indicators, returning to the literature, verifying the decision to place the identified indicators with the theme and sub-topic provided verification for the Principal-researcher.

Organizational Grid

The Principal-researcher created a grid as an organizer to place statements into categories and grade levels for teacher reflection statements. In the example below, written statements or phrases were placed in possible categories. Categories then became narrowed until the most dominant categories emerged. This method also provided a system that determined if statements were more predominant in one year than the other, or if the grade level became identified with one year more than in another. The example below illustrates the organization of data from teacher reflections.

Table 1

*Organizational Grid*

<table>
<thead>
<tr>
<th>Possible category</th>
<th>2001-2002</th>
<th>2002-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork/team building</td>
<td>--Our team gets along this year K,K,K, 1,1,3,</td>
<td>--Becoming a family of professionals 4</td>
</tr>
<tr>
<td>Teachers as Leaders</td>
<td>--Team helps each other 2,3,4,4</td>
<td>--Some on the team are experts everyone helps me K,K,1,1,1,3,5</td>
</tr>
<tr>
<td>Trust building</td>
<td>--We’re becoming family 5,5,1,1,3,3,3,3, 4,4,4.</td>
<td></td>
</tr>
</tbody>
</table>

Possible themes or sub-topics were placed in one portion of the grid (possible
category). Later, final organizing themes and sub-topics were added, after checking against the literature.

The use of the matrix followed the suggestions of Knodel (1993), and described by Fern (2001). “This matrix may be as detailed as the researcher cares to make it” (p. 228). “Once the overview grid is complete the researcher can verify that the same issues were addressed by each group and that the positions taken on these issues are the same across similar groups” (p. 229).

The first two questions were identified from the Analysis of the Dynamics of Change process flow chart (Appendix 2). This process provided teachers an opportunity to participate in a problem identification and problem solving model.

Question one: “What did you learn this year that made you a better teacher?” This personal emphasis on the teacher helped to understand why and how teachers make decisions and draw conclusions about their own professional growth during the year. The analysis of question one provided an understanding of teachers’ roles in curriculum and instructional decisions. Teachers’ roles in curriculum decisions were identified in the Analysis of the Dynamics of Change flow chart in the issues/concerns section (Appendix 2).

Question two: “What did you learn that made you a better team member?” also emerged from the Analysis of the Dynamics of Change–outcomes section, that identified three distinct areas relating to issues of team functioning: (a) Trust issues within teams; (b) teams functioning better; and (c) lines of team communication established. An
analysis of this question could reveal insight from teachers’ perspectives into whether team issues improved.

In an effort to elicit further insight into ways the school was becoming constructivist, questions three and four were more general. “Overall, what were the best parts about this year?” and, “What do you look forward to next year?” The analysis could compare year 2001-2002 to year 2002-2003 and determine if there was an identified change from one year to the next.

Teachers wrote in narrative form and statements were once again extrapolated. The Principal-researcher wrote teachers’ statements in a matrix configuration for each year. Rows represented statements; themes were identified based upon the most common phrases. This process for providing a reliability check is recommended by Knodel (1993) as reported by Fern (2001).

Due to the broad scope of the constructs, each statement fit into one of the constructs. In many cases, statements overlapped from one category to the next. Categories also often overlapped. Statements were placed within the most predominant category as judged by the Principal-researcher.

As soon as themes and sub-topics were identified, through consistently repeated common statements, it became possible to compare one data set with the other for consistency and agreement. The Principal-researcher extrapolated specific words and phrases from the context of teachers’ reflections and determined if differences occurred.

Some differences occurred in the Principal-researcher’s journal/story, not with the
context of the statement, but because of the leader’s perspective. For example, question one: “How do you feel about this year and why?” The teachers’ statements indicated their belief that their teams were getting along, with such indicators as, “Our team helps each other. I paid attention to my team’s needs and wants. I enjoyed assisting my teammates.” The Principal-researcher’s journal comments stated, “Teachers appear to finally get along, especially within team X.” The same statement, but from two perspectives.

Data Collection, Organization, and Analysis Process

Each teacher identified their grade level on the written reflections. The intent by the Principal-researcher was to determine if comments were grade level and team specific. The year of the reflection was later identified as part of the grid to see if comments were year specific.

1. Identified statements and phrases from teachers’ written reflections. First, for year 2001-2002, then again for years 2002-2003, to determine if the responses differed from one year to the next.

For example:

Question 1. What did you learn to be a better teacher?

1. Phrases were listed

2. Key words and phrases were underlined
<table>
<thead>
<tr>
<th>K (kindergarten)</th>
<th>Grade 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt better about myself</td>
<td>I’ve grown so much this year.</td>
</tr>
<tr>
<td>We all got along on our team</td>
<td>I’ve learned new strategies</td>
</tr>
<tr>
<td>Team made more effort to get along</td>
<td>I was “enveloped” in support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade 2</th>
<th>Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m fortunate to be part of this team.</td>
<td>I changed my attitude to more positive</td>
</tr>
<tr>
<td>I learned the importance of a strong professional environment</td>
<td>Learned flexibility with my instruction</td>
</tr>
<tr>
<td>I’ve been mentally stretched</td>
<td></td>
</tr>
</tbody>
</table>

The Principal-researcher identified words and phrases that began repeating. For example, when teachers repeated statements that related to working together such as, “We plan together. We get together,” etcetera, those statements later became part of a larger grouping—collaboration. Initially, however, once the same statement was repeated, a single entry that identified the grade level of the respondent was placed beside the statement and later on a grid in the column identifying the year. If similar comments were stated by two or more teachers, the Principal-researcher identified those comments as part of the clustering.

Focus Group Interviews
N=60

Step 1. Identify statements

Step 2: Underline key words and phrases

Examples of organizing the data:

Question 1. What professional experiences have provided you with an understanding of constructivist thinking and learning for both you and your students?

Teachers employed since 1997-1998:

The Principal asked me about my philosophy and my expectations, that made me look at who I was and think about where I wanted to go.

There is no micro-managing, I must think about why and how I do things, I feel empowered.

When we wrote our thematic units over the summer it made me think more about raising students thinking to a much higher-level, and design higher-levels activities.

Teachers employed since 2000-2001:

I keep learning

I have the freedom to experiment and try new things.

Understanding our personalities is helpful. It helps me understand me and my team members better.

I connect with team members and work together, we construct our own knowledge as we go.

Listed single statements/phrases, looked for patterns, identified commonly used words and phrases that clustered to form identifying indicators.
<table>
<thead>
<tr>
<th>Phrases</th>
<th>(grade level)</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt better about myself (K)</td>
<td></td>
<td>self esteem</td>
</tr>
<tr>
<td>We got along (K, K)</td>
<td></td>
<td>support, getting along</td>
</tr>
<tr>
<td>(two kindergarten teachers, same grade stated the same thing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grown so much 1, (mentally stretched) 2</td>
<td>(grade 1 and grade 2 teacher)</td>
<td>learning</td>
</tr>
<tr>
<td>Learned new strategies (4)</td>
<td></td>
<td>learning</td>
</tr>
<tr>
<td>“enveloped” in support(5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part of team (3,5,5)</td>
<td></td>
<td>importance of teams</td>
</tr>
<tr>
<td>Importance of strong professional environment</td>
<td></td>
<td>professional</td>
</tr>
<tr>
<td>Changed attitude-positive</td>
<td></td>
<td>attitude</td>
</tr>
<tr>
<td>Flexible</td>
<td></td>
<td>change</td>
</tr>
<tr>
<td>I think about how and why 2, 2, 3</td>
<td>(two second grade teachers, 1-3rd responded with similar comments)</td>
<td>metacognition</td>
</tr>
<tr>
<td>Feeling empowered</td>
<td></td>
<td>Affect</td>
</tr>
<tr>
<td>Asked about my philosophy</td>
<td></td>
<td>empowerment</td>
</tr>
<tr>
<td>Thematic units-thinking</td>
<td></td>
<td>philosophy</td>
</tr>
<tr>
<td>curriculum</td>
<td></td>
<td>thinking about</td>
</tr>
<tr>
<td>Students thinking – higher-levels</td>
<td></td>
<td>higher-order thinking</td>
</tr>
</tbody>
</table>

The Principal-researchers’ journal/story is divided into sections according to the
year the school was in existence, beginning with Year One. The journal/story provided
supporting statements through comments, descriptions, and explanations that both
reinforced teachers’ perceptions and provided the Principal’s perspective. Phrases were
extrapolated from the text, and organized according to the system devised for Teacher’s
Reflections and Focus Group Interviews. For example:

**Year 4**

Focus on creating a **community of learners** team, collaboration

**New teachers caused unrest** change

The **philosophy of constructivism** is slowly becoming **internalized** by the staff philosophy

**Everyone must own the change** change collaboration

**Self-assurance** needed for the teachers self esteem

Key words began to cluster from all three data sources. Clusters were created
based upon common statements. Clusters of words were arranged and rearranged until
the clusters generally favored a grouping. Words or phrases often occurred in more than
one category, however, the Principal-researcher generally selected one dominant category
in order to assist in identifying themes and possible sub-topics. The decision about a
category in which to place a word or phrase was often contextually based. For example,
the following words or phrases occurred in the data sources:

1. learning new ways of teaching math

2. understanding

3. concept-based units-higher-level of thinking
4. earning new strategies
5. feel more self-confident about my teaching

Code checkers reviewed the clusters at different times to determine additional groupings or modify the Principal-researcher’s conclusions. The example above illustrates a case in point. Phrases one through four clustered around ideas of both curriculum change and constructivist beliefs. However, the checkers determined item five, although relating to curriculum, fit best in the grouping that related to self-esteem. That item was removed from this cluster and placed in another one.

A new cluster of words and phrases formed. Code checkers agreed that an additional grouping of statements should constitute another theme. This theme was identified as Affect. The Affect theme developed with the number of statements that reflected an emotional connection. For example, teachers used such words and phrases as “I love my team, we laugh, I need to feel appreciated. Several references were made to “I felt…”

Many of these statements refer to Maslow’s Hierarchy of Needs (1954), reported by Shapiro (1995, 2000, 2003). On a staff of 60, with only one male, female emotional needs must be met. However, areas of Affect do not stand alone with isolated statements expressing emotional needs, but rather are connected to an existing theme. So, although Affect must be recognized as a critical theme, for purposes of explanation, and examples, reference requires review of existing statements. Comments and reflections were often embedded within these statements.
Identifying themes and subtopics

Once clusters of words were identified around a broad idea, the Principal-researcher returned to the literature. During the literature search, the identified clusters of words were examined within the literature. The same clusters were also checked in Chapter Two for theme identification. For example, when ‘collaboration’ occurred in the literature, the Principal-researcher analyzed the contextual topic used by the researchers. In this way, the contextual meaning from both the researcher and the teachers’ responses were consistent.

“Collaboration” is a function of teacher leadership that occurs when teachers work and plan together, as well as discuss students’ work (Barth, 2001; Maxwell, 1995; National Research Council, 2000). Collaboration fits under the broader theme of “Teachers as Leaders” (Chapter Two). Collaboration became a sub-topic under the broader theme of “Teachers as Leaders.” In this example, the Principal-researcher continued to go back and forth among key words, finding supporting literature, and identifying clusters of common words, and the accompanying sub-topics and themes, in order to better categorize and identify key statements.

The Principal-researcher reviewed the literature to determine if other authors used similar expressions or statements in identifying a specific theme or idea. For example, Maxwell (1995) identified the behaviors of teacher leaders. He stated that teachers as leaders were ones who helped form relationships among their teams, while modeling the
ability to build trust. Based on Maxwell’s work, the Principal-researcher identified trust building and forming relationships as a sub-topic of Teachers as Leaders. The identified indicators fit into that sub-topic and theme. This method of determining the indicators, returning to the literature, verifying the decision to place the identified indicators with the specific theme and sub-topic, was used.

When statements did not obviously fit a specific category, the Principal-researcher examined past practices at the research site and the journal/story. For example, the Principal-researcher determined that when collaboration occurred, someone among the teachers initiated the process therefore a teacher took on a leadership role at that point.

Another step included identifying each of the initial constructs that the Principal-researcher examined in Chapter Two: (a) philosophy of constructivism, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders and determine if any of the clusters of statements began to develop under these five possible themes. A sixth construct was added later after code checkers identified (f) Affect as an additional construct. As the statements began to cluster, the six constructs became identifying themes. The Affect theme developed with the number of statements that reflected an emotional connection. For example, teachers used such words and phrases as, “I love my team … we laugh, … I need to feel appreciated.”

Several references If a cluster of statements were a sub-set of the topic, that statement became a sub-topic, then a numeral was assigned. For example, when a teacher
commented that she “took on more leadership roles this year,” that statement became the indicator—teacher leadership. That statement reflected a theme--Teachers as Leaders. Therefore, that statement was coded with a TL. Collaboration, however, was part of the concept of Teachers as Leaders, and identified as one sub-topic, or TL 1. The teacher identified her grade level on her written reflections with a K, as a kindergarten teacher, the year 2001-2002. The researcher placed a K, for kindergarten in the correct year on the grid, by the appropriate sub-topic of “collaboration.”

Table 2
List individual statements. Clusters of like statements began to form into common topics.

<table>
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<tr>
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<tbody>
<tr>
<td>TL - Teachers as Leaders</td>
<td>Collaboration</td>
<td>We work together K, K, K (indicates three kindergarten teachers made a similar statement)</td>
<td>I love my team we get along well. K,K, K, K, 1, 1, 1,1,1,2, 2, 2, 3, 3, 3, 4, 4, 4, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5</td>
<td>’97-’98 There is constant dialogue – it is so important Our team works so well together.</td>
</tr>
<tr>
<td>A Affect</td>
<td></td>
<td></td>
<td>K,K,K,K,K,1,1, 1,1,1,2,2,2,3,3,3, 4,4,4,4,4,5,5,5,5,5</td>
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Many of these statements refer to Maslow’s Hierarchy of Needs, reported by Shapiro (1995, 2000, 2003). On a staff of 96% female, emotional needs must be met. However, areas of Affect do not stand alone with isolated statements expressing
emotional needs as such, but rather are connected to existing themes. So, although Affect must be recognized as a critical theme, for purposes of explanation, and examples, reference will require review of existing statements.

The examples provided after each of the identified themes illustrated points of reference, extrapolated from authentic text written by teachers and the Principal-researcher, and used in the triangulation process: one example from the teachers reflections, one example from a focus group, and one example from the journal/story. The references from the journal story also identified the specific year in which the comment occurred. If no year is identified, it indicated that the statement spanned the entire six and one-half years.

Constructivist Philosophy

A review of the literature examined how researchers and authors described a constructivist philosophy that applied to the workings of an elementary school. The language that expressed constructivist beliefs drove the identified indicator that applied both to students and teachers.

Most constructivists believe that learning occurs under a variety of conditions when: it is an active experience, learners are engaged in their learning, students know how to work independently, solve problems, build on prior knowledge, form new ideas based on past experiences, work collaboratively, construct their own knowledge, make connections from the known to the unknown, and think critically (Blase & Blase, 1998;
With the exception of Shapiro (2003) other researchers and authors described segments of constructivist learning conditions, within a school environment, not an entire school. It is within that context that the Principal-researcher identified how teachers’ statements were consistent with each of the individual portions that the literature described.

Teachers and students learned in a constructivist environment that encouraged and supported a democratic environment that is risk-free, and learner-centered (both for teachers, students, parents, and Principal). Constructivist learning occurred in a place that promoted self-assessment, reflective practices, small group instruction, project-based learning, a democratic process, and goal setting (Apple & Bean, 1999; Blais, 1998; Fogerty, 1970).

Teacher reflection statements were analyzed according to statements similar to those found in the research. Teachers identified words consistent with authors who described various aspects of constructivism. Once similar statements were clustered, and indicators identified, then subtopics evolved.

Under the theme “Constructivist Philosophy,” six sub-topics emerged, based upon teachers’ written perceptions—examples are provided.

1. Understanding the concept of constructivism

Reflections: I realize the importance of thinking more in-depth, and thinking more
critically, so that both the students and teachers build their own understanding.

Focus Group: This is a part of the constructivist philosophy that really works with students.

Journal/story--Year 6: Test scores show that teaching constructivistically really works for students. Teachers can now see, with hard data, what constructivism is all about.

2. Problem solving and decision making within the staff

Reflections: It is sometimes hard to figure things out, and I wanted the Principal to just tell me what to do, but she just kept asking questions, so I had to figure out what I needed to do. I am a better teacher because I’m learning to ask more questions.

Focus Group: I have spent much more time problem solving issues--of doing a better job with our students as we talk to our team and pod mates.

Journal/story--Year 4: We had to make room changes because we are adding on more teachers, and there is a domino effect. I asked the teachers to decide where they wanted to have their classroom for next year. There were only a few “givens” but for the most part, teachers were given a blank map, it was posted in the conference room, and they were left on their own, by teams, to figure out where their room would be the next year. I have to model constructivist thinking and problem solving. I can’t make the decision and expect teachers to learn to think on their own. I don’t see that we can have it both ways.

3. Reflective practice

Reflections: I am thinking more in-depth about our instruction.

Focus Group: The pull-out days really help me get with my team and think about why we do what we do with the students. It’s great time to reflect.

Journal/story—Year 1: During the summer writing teams’ work it was an important time to go back and reflect on what was happening in the classroom. Having a complete grade level for one week gave us the time we needed to talk about what we learned over the year about curriculum, instruction, and assessment.
4. Working in a risk-free environment

Reflection: I feel that I can try out new ideas, if they don’t work, I just need to try again and that’s O.K.

Focus group: I like having a lot of opportunities to try new ideas and bounce things around on the team that we can figure out. We know the benchmarks we have to follow, but we can get there a bunch of different ways.

Journal/story—Year 2: Teachers need the opportunity to try new ideas, and figure things out on their own. They know there are basic parameters, benchmarks, but how else will they learn, if they can’t try new ideas and not worry that they’ll get fussled at?

6. Thinking in-depth and critically

Reflection: I have to really think when I’m teaching math. The math program is great, but I have to really get in their and dig so that kids learn to understand math, not just do it.

Focus group: I am taking more time to discuss instructional strategies with my peers and with the administration. We are going a “mile deep and an inch wide.”

Journal/story--Year 3: I know I drive staff crazy when I keep asking questions instead of telling them what to do—making them think; so many of them want a recipe for teaching. There is no recipe in a constructivist school. That would be talking out of both sides of my mouth. They’ll learn it’s a process, not a program.

7. Focusing on the learner.

Reflection: It’s all about the students. I spend a lot of time analyzing what each child needs.

Focus Group: We spend our time talking about better ways to help our students become independent thinkers, not just griping about them.

Journal/story: I am so impressed when I go into the different teacher’s pods and the teachers are spending their time talking about how to make things better for the students. I have been in schools where, instead of spending time trying to figure out how to help kids, they spend their time griping about them. Not here.
A review of the literature examined how researchers and authors described the concept of change and the impact change has on an organization. The language that expressed issues dealing with change drove the identified indicators. Teachers’ described their perspective of change in relation to issues such as changing instructional and curriculum practices from a traditional textbook-driven approach to the constructivist approach described above. Change occurred when classrooms change, there are new members on a team, or a new instructional delivery model occurred. Therefore, the literature review focused on change from a teachers’ perspective.

Significant change occurred when teachers trained to present students’ instruction from a scripted teacher’s manual changed to an instructional delivery model that is highly individualized with emphasis on experiential, individualized, and higher-order thinking. Change was described by many contemporary researchers and authors. (Adler, 1977; Daggett, 2001; Darling-Hammond, 1997; Goodlad, 1994; Schlechty, 2001, Shapiro, 1995, 2000, 2003). The effect of change on teachers was described in various ways by (Brown & Moffett, 1999; Hargreaves & Fullan, 1998; Sarason, 1996; Wilson and Daviss, 1994) Chapter Two also described the complexities of change from a variety of perspectives.

The broad theme of “Change” provided three additional sub-topics, based upon
teachers’ perceptions: the evolution of the curriculum, change of delivery models, and changing teams.

1. Understanding a constructivist approach to curriculum and thematic instruction.

Reflections: At first it was hard getting use to a new team, when some of our old team moved on, but eventually we learned to understand each other and learn from each other.

Focus Groups: The days when our team is pulled out from the classroom and spend time discussing how to integrate our concept-based thematic units is so important because we talk about how to get better at things like performance-based assessment and high level thinking activities.

Journal/story—Year 3: The changing of teachers for the first three years was so difficult. I know that some teachers can not handle a constructivist environment, and we need stability, we have to keep teachers who understand and support the vision, regardless how much change of teachers is needed.

2. The impact of choosing different models for instruction, such as vertical teams or looping (described below).

Reflection: I wasn’t sure if I wanted to loop with my kids or not, but I’m so glad I did, it was a good decision on my part. I know the kids so well that I didn’t waste any time building a community with them. When school started we just took right off.

Focus Group: We have to be careful that we don’t let teachers try too many things. There is an impact when teachers want to get together for a vertical team because it makes us have to move classrooms.

Journal/story—Year 2: It is so exciting when teachers figure out better ways to deliver instruction. ThisYear Two teachers decided to loop with their students. It caused some initial anxiety when teachers thought they would have to go to another grade level because they would be displaced. As usual, with a staff this large, there is always room for adjusting grade levels, without moving anyone out of their requested grade level.

Vertical teams comprised of a mixture of grade level classes work within close
proximity of each other. For example, all second grade classrooms were generally located in close proximity to one another and comprised a horizontal team. A vertical team consisted of classrooms, located near each other. However, different grade levels within a grouping of classrooms comprised a vertical team. A sequence could include any consecutive grades in any sequential combination. For example, within a cluster of classrooms one could find configurations such as: Kindergarten, grade 1, grade 2, and grade 3. Members of vertical teams planned together for purposes of providing more opportunities for flexible grouping among children in various grade levels.

“Looping” is a term that identified a group of students who keep the same teacher for more than one year. For example, a first grade teacher will move with the students and continue into the next year as their second grade teacher.

The effects of change on an elementary teacher occurred in both positive and negative ways. Positive issues surround such topics as changing from one instructional strategy to another through reflective practices. Better ideas were often generated when new members came into the team. Once bonding occurred negative effects occurred when a team member leaves the team.

Reflection: Negative effect of change--I wish we could keep our team members together on the same team and in the same pod, there are a lot of changes every year. Teachers move around too much, I wish they would stay. It’s the teacher’s choice.

Focus Group: Positive effect of change--Change is an expectation when moving toward the vision such as providing better instruction that is child-centered, there is more focus on problem solving.

Perception

Often school leaders are expected to lead reform without an understanding of how
teachers are impacted. An examination of the literature is lacking on the specific topic of the perception of teachers about constructivism as an educational change model.

The language that expressed issues dealing with perception appeared to be embedded in all other areas, and not expressed as a separate issue. For example reflections and focus group statements did not produce the word perception in any of the responses. The researcher reviewed literature in areas where perception of the workplace in general appeared.

An examination of job satisfaction, in a 1997 statistical analysis report, identified job satisfaction among America’s teachers (National Center for Education Statistics, 1977). The survey of teachers throughout the United States answered the following question: “How do public school teachers’ attitudes and perceptions of the workplace relate to their level of satisfaction?” Principal interaction, teacher participation in school decision-making and influence over school policy were among the factors more closely associated with job satisfaction. The most satisfied teachers worked in a supportive environment (Perie & Baker, 1997). A study conducted by Goodlad (1984) found that teachers who were more satisfied with their jobs worked in an environment where teachers perceived they had greater influence over their use of time, and more control of their jobs (Chapter Two). Blase and Blase (1998) conducted a study of 800 teachers who responded to an open-ended questionnaire where they described effective principals. The Principal-researcher concluded that the responses were teachers’ perceptions. Their
responses are consistent with some of the statements made by teachers in this research study and described in the summary of this chapter.

Each of the statements identified in the literature that were also stated by the teachers appear in other themes as sub-topics. Therefore, this theme of “Perception” was eliminated as a stand alone issue since it was embedded in all the other themes and sub-topics.

There is one exception that relates strictly from the experiences at the research site that is perception-specific. It was addressed by the teachers, although not identified as a perception, yet, was observed by the Principal-researcher as a perception, and found in the journal/story in Year Three. At that time several teachers were needed for the year. It was decided that the school would benefit from more experienced teachers. A school in a neighboring area was losing many of its top teachers. The teachers had the same philosophical belief system. Hiring experienced quality teachers from one school was an advantage, from the principal’s perspective.

However, when new teachers were hired, even though the philosophical foundations were the same, some of their instructional strategies and curriculum beliefs were different from those already established in the school. Therefore, existing teachers believed that those coming new to the school, were going to “take over and change everything.” Although it was the perception of the existing teachers, the Principal’s perception was one of hiring new and experienced teachers with a broad range of new ideas to bring into the school resulting in two perceptions of the same situation.
This particular perception impacted the entire staff and was identified as an area of focus of the Analysis of the Dynamics of Change Process (Shapiro, 2003) and led to a plan developed within the Potential Line of Action (Appendix 2).

Leadership

A review of the literature examined how researchers and authors describe Leadership within the setting of a school. The language that expresses issues dealing with Leadership drove the identified indicators that apply to the Principal. At this point, indicators begin to shift from teachers’ perceptions of what teachers needed and wanted in a constructivist learning environment to the Principal, who is responsible for making it happen.

The Principal-researcher found only two sources that specifically addressed the issues of constructivist leadership: Lambert (2003) and Shapiro (1995, 2000, 2003). Most of the literature regarding leadership tends to focus on the characteristics and traits of effective leadership. The Principal-researcher found one study conducted by Blase and Blase (1998) of 800 teachers throughout the United States. Teachers identified their perception of effective leaders from the perspective of principals as instructional leaders. Teachers believe that good instructional leaders:

1. Talk openly and frequently with teachers about instruction.

2. Provide time and peer connections for teachers. … also attempts to develop core human and social resources.
3. Empowers teachers.

4. Understand and embrace the challenges of change.

5. Lead. Wise principals balance support and guidance with opportunity and leading from behind (pp. 164-167).

It became necessary to examine broader interpretations of leadership and relate those concepts to constructivist leadership. Sarason (1996) describes the issues surrounding the principal as a change agent. The process in which this occurs relates to developing a school culture that, in the case of this study, becomes constructivist.

There is common agreement in the literature that it is the Principal’s responsibility to provide teachers with the resources needed (National Association of Elementary School Principal, 2002; Daft and Lengel 2000. The leadership is also responsible for creating a culture of collegiality that builds on common strengths (Maxwell 2003). The lines begin to blur between teachers and leaders as the relationship between learning and leading with a constructivist philosophy becomes more powerful and reciprocal. Each view changes as it is influenced by the other (Lambert, 1995).

One major responsibility of a school leader is to understand and express a personal vision (Barth, 1990, 2001; Covey, 1990, 1991; Deal, 1999; Gardner, 1991, 1996; Manz & Sims, 2001; Shapiro, 2000, 2003. It is important for leaders to clarify their own goals if they are to influence others (DuFour, 1996). A Principal with a strong belief system, and personal vision about teaching and learning is not prone to bend to the
pressures of moving toward a more traditional approach. They keep on the course (Combs, Miser & Whitaker, 1999).

Leaders who embrace open inquiry, the sharing of problems and solutions, and collective responsibility, will foster creativity, resourcefulness, and collaboration in the work of staff and the learning of children (Ackerman, Donaldson & Van Der Bogert, 1996). Everyone is encouraged to add their ideas and opinions to the conversation and to discuss ways to make the overall learning of the school more effective (Comb, Miser, & Whitaker, 1999). This is the development of a common purpose and shared inquiry.

The leader must show appreciation and support teachers through their understanding of individual aspirations, goals, interests, needs, or dreams (Kouzes and Posner, 1987). Manz and Sims (2001) reinforce the need to provide a climate where motivation came mainly from the employees and their team members. Schlechty (2001), also emphasizes the need to give as much credit as possible to those who work on projects regardless of whether or not the project reaches the level of success predicted.

Maxwell (1995) identifies key qualities for teachers as leaders. Among the qualities: When people work together toward a common goal and get to know each other, they learn to accept each other’s unique qualities. The result is a team that fits together.

The broad topic of Leadership focused on the teachers’ perceptions of the Principal as a constructivist leader. This generated three sub-topics: supporting teachers, feeling appreciated, and providing a professional work environment.

1. Supporting teachers

Reflection: The Principal worked hard to support me with some very difficult parents. I relied on her to get me through the problems I had with
them, and she did.

Focus Group: The support level of the administrator is very high. I don’t have to worry about whether the support will be there or not. It always is there.

Journal/story: I’ll never forget my teaching roots. I know the importance of teachers feeling supported.

2. Feeling appreciated

Reflections: For awhile I was beginning to think that no one appreciated my hard work, so I’m glad we came up with a way to recognize us for the great things we do at the monthly staff meeting. It made me feel good when someone recognized me.

Focus Groups: The Principal makes a point of telling us how much she appreciates us. We get special notice.

Journal/story: It is important to recognize teachers and let them know they are appreciated. I just think I don’t do it enough.

3. Providing a professional work environment (described below)

Reflections: We were given opportunities to take risks and choose to do something different for next year like loop with the students, or move to a different team, or create a vertical team.

Focus Group: During our pull-out days when we work together I feel as if I am being treated like a professional. The day is set up in the conference room, everything is laid out, like notebooks, pens, stuff like that. Then, we always get something to take away, like the latest teacher resource book on the things we’re talking about. It feels good.

Journal/story: Teachers should not spend their time scrounging around trying to find things, or spending their own money on resources. We can find the money somewhere. If the teacher says they need something, I find a way to get it for them. Elementary teachers seem to thrive on “stuff.”

Teachers as Leaders

Within the broad topic of Teachers as Leaders, all statements relating to team and
school-community building became identified in this topic. Teacher statements suggested that when teams develop a bond, team members reach out to their peers and collaboration occurs. Teachers as Leaders are the natural outgrowth of this process (Maxwell, 1995, 2001).

Teachers also assumed leadership responsibilities in a variety of other ways. Whenever a teacher saw an issue to resolve, a problem to solve, or a project to undertake, a leader emerged. Teachers did not always see themselves in overt and dramatic roles. Often they saw themselves as leaders in more subtle, yet, equally important ways, such as helping another teacher, or keeping the grade level team organized.

Several authors and researchers address the concept of Teachers as Leaders that remain consistent with teachers’ perceptions. Once again the lines continue to blur among the themes and sub-topics as the language in the literature repeats itself with emphasis on collaboration, leadership, collegiality, trust, and team building as it relates to teachers.

Barth (2001) states, “Teachers become more active learners in an environment where they are leaders … all teachers can lead … all teachers must lead” (p.85)

Learning is a reciprocal process between and among teachers. Teachers’ understand their responsibility for their own and their colleagues’ learning (Lambert (1996, 2003).
The broad theme of Teachers as Leaders focused on the teacher as a constructivist leader and generated six sub-topics: collaboration, trust building and forming relationships, asking for help and receiving it, understanding our personality styles, the value of a positive attitude, taking on leadership roles. Examples follow.

Sub-topics emerged in areas of:

1. Collaboration

Reflection: We worked closely as a team and created the best activities for our students. We planned a family Egypt Night that was great.

Focus Group: We connect as a team. We work together. We are constructing as we think things through.

Journal/story--Year 6: The entire school bonded over our cultural celebrations that took place over the course of the year. Teachers initiated, planned, and implemented an amazing array of experiences that involved the entire community. Everyone was so proud of their accomplishments.

2. Trust building and forming relationships

Reflections: It is so much better now that we have worked together for a couple of years; we know each other and do stuff together outside of school. Some of us are running in a 5 K this week-end.

Focus Groups: Vertical teams helped build relationships with teachers we might otherwise not have been able to work with. It is fun working with other grade level teachers.

Journal/story: What a great combination. The Assistant, Curriculum Teacher and I have become good friends. It is great to have someone that I can talk to.

3. Asked for help and receiving it

Reflections: We have such a great team; we are always helping each other
Focus Group: I needed help for my Exceptional Education students. The ESE teacher helped me and I also learned a lot.

Journal/story: Teachers know that I will do anything I can to help them out, whether it is with parents or with resources; or whether it is covering their class so they can observe another teacher— that is my job

4. The value of understanding personality styles

Reflections: I’m glad we know our personality styles, it helps me understand the people I work with better.

Focus Groups: The personality workshops help me to understand myself and others better. They were fun.

Journal/story: The use of Gregorc Personality Inventory is an important piece of information for each team member to know. I will continue to use it with each person I hire. The personalities are identified and compiled for everyone on the team.

5. The value of a positive attitude

Reflection: I look forward to working with new people in my pod. I look forward to being together with my team. I get so many new ideas from them.

Focus Groups: I really took to heart the need to have a positive attitude and do what we learned: Make Their Day, Be There, and Choose Your Attitude. (Explanation follows) I really choose my attitude. It helps a lot.

Journal/story: I’m so glad we initiated the program for teachers to see the importance of “choosing their attitude,” It’s made a big difference for some of our teachers.

Understanding individual personality styles was introduced and emphasized during the
year of 2001-2002. Teachers received direct instruction when given the *Gregorc Personality Inventory*. The majority of teachers identified this experience as a meaningful one.

In 2002-2003, additional strategies for understanding how a positive attitude build an effective community was introduced to the staff. The program FISH, is based upon the positive attitude workers brought to their job at the Seattle, Washington, Fish Market (Lundin, Christensen & Paul, 2000, 2003).

The light-hearted messages used in the FISH philosophy describe ways that members of an organization can adopt slogans such as: Play, Be There, Make Their Day, and Choose Your Attitude, in order to become more positive in the workplace. This approach builds on the Gregorc. A variety of team and community building activities, built around this theme, are used at every staff meeting. It positively impacts the staff, as reported in the teachers’ responses. The majority of teachers identified this experience as important. The combination of understanding each person’s personality style and choosing a positive work attitude, created strategies for community building among grade level groups

3. Taking on leadership roles

Reflection: I stepped forward this year and took on a leadership role. It makes me feel good to know that my opinion is valued.

Focus Groups: I’ve taken on more leadership this year with my work on the Literacy Council.

Journal/story--It is important that teachers take on leadership roles. They want ownership. Teachers will not follow the vision unless they have
ownership in it. Teachers must lead. There are more of them than there are of me.

Teachers identified additional ways in which they viewed themselves in leadership roles. The process of becoming Nationally Board Certified provides teachers with process and reflection skills required to demonstrate effective instructional strategies. Teachers effectively mentor others as they model ways that elicit high level thinking and problem solving skills from the students. This area overlaps with that of the Leadership category. Teachers often need opportunities to serve in a leadership capacity that become encouraged by the leadership of the school.

Discussion

Research question 1: What are the perceptions of teachers about constructivism as an educational organizational change model? Research question 2: What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school? Teacher responses in both themes, the Constructivist Philosophy and Change, revealed statements relevant to the first research question. Subtopics were noted earlier and stated again here. The evolution of the curriculum and understanding integration of thematic units, changing delivery models such as vertical teams and looping became the dominant sub-topics.

Constructivist Philosophy
Constructing one’s own knowledge, fundamental to the constructivist philosophy, is found in the strong emphasis on reflective practice and identified by the majority of teachers as important. In addition, teachers saw the focus of student learning, not based on the teacher’s needs, but on student needs.

Change

Change was an outgrowth of becoming a constructivist school. The curriculum evolved with instructional practices that are constructivist in the implementation. The process was a change from the single-textbook-driven program, experienced by many teachers prior to their arrival at Southwood Elementary.

Teachers recognized the importance of understanding a curriculum that teaches higher order thinking within an environment that encourages integration around big ideas. Within the process of changing to a constructivist learning environment, teachers are encouraged to try innovative ways to provide different delivery models. This concept was identified most frequently in the reflections, by teachers, as a positive experience, such as the development of vertical teams and looping (identified earlier in this chapter). Changing delivery models, at the request of teachers, provides ownership in the process.

Research question two: “What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?” This question is answered with statements identified in two themes: leadership, and teachers as leaders.

Leadership
Subtopics remained consistent as noted earlier; support of the teachers, feeling appreciated, and providing a professional work environment. According to the most frequently noted statements, the leadership of the school provided a professional work environment. In addition, teachers felt supported and appreciated. Support and appreciation requires a conscientious effort on the part of the principal in any environment. Creating a professional work environment that is constructivist is the responsibility of the leader.

Teachers as Leaders

Many of the respondents noted that they had taken on leadership roles during the year. When teachers became leaders in a constructivist school they recognized the importance of maintaining a common philosophy. They took the lead in solving problems, and determined ways to implement a constructivist philosophy through their own modeling. When teachers collaborated and built relationships within and among team members, solving problems and implementing a constructivist philosophy became a cycle of learning and team building for teachers.

Teachers also noted the importance of understanding personality styles of their peers as well as the value of creating a positive work attitude. These comments were consistent, beginning with the reflection data in 2002 and 2003.

For purposes of readability, quotes from teachers’ responses, used for examples,
are identified by the title: “Teacher,” followed by a numeral or a letter. This does not imply that teachers were individually coded as part of the data analysis.

The questions for the focus group interviews, by their specificity, addressed the research questions more directly and, therefore, the responses were more focused than the reflections piece. Research question number one: “What are the perceptions of teachers about constructivism as an educational organization change model?” was answered more frequently through question 1 and 2.

Question 1: “What professional experiences have provided you with an understanding of constructivist thinking and learning for both you and your students?”

Question 2: “What are your perceptions regarding the school moving toward constructivist approaches?” Consistent with the reflections themes the constructivist philosophy theme is central to both of these questions.

Question 11: “What has been the impact on your practice?” Question 13: “What has been the impact on your students?” Both questions 11 and 13 received similar responses from the perspective of the teacher.

Question 15 is consistent with the reflections sub-topic of problem solving and decision making within the staff. Each of the identified questions provided insight into the research questions and teachers’ perceptions of utilizing a constructivist philosophy within their instructional practices.

By the second year of the school, teachers identified the school’s adoption of a specific instructional series in mathematics. Teachers began making the connection
among instructional strategies, they were teaching constructivistically through hands-on experiences, problem solving, and decision making, within a learner-centered environment.

Working in a risk-free environment was noted in focus group interviews as an important part of learning to teach constructivistically. Within this environment teachers think critically and in-depth while discussing instructional strategies and making curriculum decisions with their team members. Teachers transferred their own strategies for thinking and problem solving to their students. They discussed successes and why particular strategies did not work. For example:

Teacher 1: I have the freedom to try new things.

Teacher 2: The use of our math program helped me understand constructivist thinking. This math process helps the students learn to think constructively.

Teacher 3: We are well trained by our own staff. They help me understand constructivist thinking.

Teacher 4: I connect and discuss professional issues with team members, we work together. We construct our own knowledge. We are constructing ideas as we think things through. I am amazed to watch our children think about how learning occurs—in such a constructivist way. They can explain their thinking.

Teacher 5: The principal asked me to explain my philosophy and I had to really think about it. That was a constructivist question because I had to construct what I believed into a real philosophy.

Teachers’ perceptions consistently identified problem solving and decision making experiences as fundamental to working in a constructivist environment. Teachers overwhelmingly stated that they have total decision making power. 100% of the teachers
agreed: We have 100% decision making power. The school is constructivist and provided freedom to make decisions and act upon them.

Question 15 solicited different positions on the same question. Although all teachers believed they had 100% power, others believed they had too much power. Others felt they had a 50-50 partnership between staff and the principal. The general feeling among teachers related to the difference between management issues, that were believed to be the job of the principal, and power over curriculum decisions that were given to the teachers.

Question 6: What roles did this administrator play? This question’s responses were consistent with the theme of Leadership from the reflections component.

Teacher 1: She makes you stop and think about what we do and why we do it.

Teacher 2: She gives you time to process information, then try, if we fail, we try again, and succeed. She knows where to place people, she supports us. She has made me a better teacher.

Teacher 3: She makes you feel like a professional, appreciated and respected.

Teacher 4: She just likes to stand back and let the process work. She has a master plan, but let’s us figure out what to do.

Question 12: What has been the impact on team collaboration? Teacher’s responses were consistent with those identified within the reflections and the theme of Teachers as Leaders and Change

Teacher 1: We think constructively when we gather around to talk about how we can do a better job with the students, or just help each other solve problems.

Teacher 2: We really are practicing constructivist thinking the same way we want our kinds to learn.

Teacher 3: One of our team-mates is always there to tell us about an idea they had or something that worked. We think and problem solve together.
Question 4: What roles developed in the process? Question 5: What roles if any did you and/or your team play in the process? Question 14: What experiences have provided you with the knowledge and experiences to take on leadership roles? The responses to these questions are consistent with those identified during reflections in the areas of Teachers as Leaders and Change.

Teachers consistently described ways that they took on leadership roles. They further identified how they can take on any school role that they would like. Teachers stated areas of leadership they assumed.

Teacher 1: chairman of the science committee; a member of the Literacy Council and therefore lead individualized teacher Study Groups.

Some noted their roles as Nationally Board Certified Teachers who mentor other teachers. Others are team leaders and School Advisory Council members.

Teacher 2: I wouldn’t have taken on the leadership role I have, if the Principal didn’t tell me that I had something important to contribute to the committee, so I stepped up.

Teams noted how they worked together to organize and take the lead with parent events in the evening. The team assumed combined leadership roles, or group leadership.

Kindergarten: We organize a kindergarten orientation day for parents and children. The parents receive an overview of how our kindergarten program works. We show them how we teach using hands-on experiential learning, problem solving, and decision making.

Third grade: We showcase projects, artifacts, student products, thematic literature, games, and background videos with our Egyptian Night.
Fifth grade: We have portfolio nights where we have students present their best pieces of work to their parents.

After listening to the audio tapes, and reading the transcriptions, the Principal-researcher determined that there was one group that could provide significant insight: the current Curriculum Resource Teacher (interviewer) who was a fifth grade teacher, left to go to another school, and returned in the CRT position. The former Curriculum Resource Teacher who returned to the classroom as a third grade teacher for the 2003-2004 school year could see the dynamics and insight into the school issues from the broad perspective of a CRT, and the classroom perspective of a teacher. The Principal-researcher interviewed each of them to determine their perceptions of the questions.

Interviewer: With everything you have heard and seen, including the questions presented to the teachers, would you please tell your perception of the answers to the questions?

Current Curriculum Resource Teacher: The teachers’ view of power comes in a Catch-22 situation. 100% of the teachers believe they have the power over what they do and how they do it in the classroom, like instruction and curriculum decisions. They know they aren’t told what to do. Teachers seem to want to make only the decisions that are not controversial. They know that some decisions cause conflict.

One teacher said, “I don’t always want to think outside the box, I want a box, I want to know what is in the box, but I want to go out of it whenever I want.” The teachers want it both ways.

However, the teachers tell us that the beginning teachers need more structure. But, I remember what happened to me when I was first a teacher at Southwood. I knew I had to figure it out, and once I figured it out through in-depth thinking and communicating, I realized that I was expected to figure out how to figure it out. It’s a process.

That’s the reason that the freedom to fail is a powerful part of why teachers are so reflective about what they do. Some don’t stick it out long enough to give themselves the confidence to know that thinking on their own is possible.

Former Curriculum Resource Teacher: The process of constructivist thinking and learning is very individual. Each of us has to be very reflective about why we are
doing what we do. Now that I am back in the classroom, I see things from a
different perspective. I try some things, reflect on them, regroup, toss the idea
away, or share it with my team mates so everyone can benefit from the things I do
that work. But, it is a hard job.

The bonding my team has makes thinking together about how to get better
at what we do that much more interesting. We’re always trying new ideas and
adapting to the children’s needs.

Relationship building is key to the success of any philosophy. In the
constructivist philosophy it is even more important because it requires a lot of
heads thinking to do the job well.

I just read a book by Rick Warren called, the *Purpose-Driven Life*. He
says that “You must want to grow, decide to grow, make an effort to grow, and
persist in growing.”

He has another great quote when he said, “We become whatever we are
committed to.” Teachers fuss when they have to move their classrooms, but it
doesn’t take long for them to adjust. Some have a harder time with any kind of
change than others do.

I think to have our constructivist school runs well, we have to get and keep
committed people. I think we’re almost there. As long as teachers stay with us,
and they are, we will just get better.

Constructivist thinking dominated the beliefs of both teachers who are leaders.

Consistent with the statements made during the teachers’ reflections and focus group
interviews, patterns and themes were fundamentally the same: The constructivist
philosophy; change; perception; leadership; teachers as leaders, affect, and the
accompanying sub-topics identified earlier in this chapter.

The teachers’ curriculum, instruction, and assessment practices are based upon
their understanding that knowledge builds from a learner’s past experiences, including
students’ values, beliefs, and customs. This was combined with newly formed
understanding and experiences that evolve through exploration and discussion. Teachers
provided students the opportunity to draw independent conclusions. Teachers’ facilitated
students’ learning as they constructed knowledge in a risk-free environment where hands-
on, experiential learning, problem solving, and decision making dominated instruction. Teachers created a learning community within each classroom.

Teachers also constructed their own knowledge in a school that encouraged and supported problem solving and decision making. Teachers created a community of learners through reflection and discussion of their current practices as they shared instructional experiences with other educators. The teachers’ reflections and focus group interviews emphasized the same beliefs by theme and sub-topic. Focus group interviews provided greater detail than teachers’ reflections.

The Principal-researchers anticipated discussion about high-stakes testing and the worry that the tests imposed on teachers’ instruction and on students’ learning. The subject did not come up in either teacher reflections or in focus group interviews. The assumption is that when students were taught to think critically, and the standardized test required higher-level thinking, the test itself is only a test.

Students taught constructivistally attain high levels of achievement and notable levels of improvement among all learning groups according to standardized test scores state and local recognition (Appendix 5).

Principal-researcher’s journals

The journal/story (Appendix 1) was expanded into the form of a story. Conclusions reached by the Principal-researcher were generated from the position of someone who saw all the issues from many perspectives, and a six and one-half period.

The research question, “What are the perceptions of teachers about constructivism
as an educational organizational change model?” and, “What are the perceptions of developing a constructivist philosophy in a total elementary school?” often generated overlapping responses within the Principal-researcher’s journal/story.

Constructivist Philosophy

Understanding the concept of constructivism, from the teacher’s perspective, developed in a variety of ways. Sub-topics: Reflective practice, problem solving and decision making, working in a risk-free environment, and focusing on the learner, take on a broader meaning when viewed from the Principal’s perspective.

The Principal-researcher’s perspective:

Year One

The leader of the school must understand and advertise the vision of the school, demonstrating through both overt and subtle ways, the personal expectation of the direction of the school, in this case a constructivist belief. From the first day of the school, the logo, theme, and school song dramatically illustrated the vision: Young Architects for Tomorrow. Curricular decisions were made by the Principal. Selecting instructional materials that were constructivist required purchasing materials that were hands-on, experiential, and based on students solving problems through decision making. Teachers needed to examine, in-depth, instructional strategies supported through these resources. Constructivistic teaching was implied, not stated, in Year One.

Teachers were continuously challenged to think about why they made the decisions they chose. The curriculum was not a scripted program, it required constant
problem solving and decision making within the staff. It appeared from teachers’
comments that the process was always a part of the culture. Understanding the concept
of constructivism was a process of thinking, reflection, and continuous assessment. This
was not entrenched until the end of Year Six.

The journal/story provided frequent reference to the challenges during the first
year as the teachers began to understand, through instructional strategies, in-service
training, and continuous discussions, the implications of a constructivist model. An
understanding of a learner-centered environment was not evident in all classrooms in that
first year.

Grade level teams gathered to write concept-based integrated curriculum thematic
units of instruction, at the end of Year One, during the summer. A curricular framework
provided a clear picture of how to design high-level curriculum, instruction, and
assessment that is constructivist. This became a valuable time for a team of teachers to
understand the process of problem solving and decision making, thinking in-depth and
critically about what curriculum looks like in a constructivist environment.

Year Two

Problem solving and decision making within the staff, (another sub-topic), began
slow in Year Two. The writing teams shared how concept-based thematic units, written
over the summer, were designed and constructed. They described how the units used an
integrated, learner-centered approach with an emphasis on higher-order thinking and
problem solving. The curriculum began to evolve. A few teachers began developing as
leaders.

Principal-researcher:

Change, identified earlier as an important theme, and the disruption it caused among the staff, was evident in Year Two. The staff experienced many new members, as a result of several teachers leaving after the first year, and the school expanding so quickly, it required an increase in staff members. Almost one-fourth of the instructional staff was added, several after January, to accommodate overcrowded classrooms.

Teachers as leaders became important as mentors to others. The teachers began to understand a constructivist philosophy, but had not thoroughly internalized the process. Forming relationships began to develop among some teams and team members, but it was difficult for teachers to feel their team was stable.

The Principal recognized the importance of nurturing new teachers and encouraged teachers to become leaders. Veteran teachers became trainers of staff. The Curriculum Resource Teacher conducted in-service sessions that reinforced curriculum areas that were highly constructivist.

Several sub-topics did not emerge as impacting staff members in Year Two. Teachers, on the whole, began to experience a risk-free environment. Many were still looking for the “right answer” to an instructional delivery model. Constructivism was still a concept embedded in staff training and curriculum resources.

Some staff members began to understand a constructivist approach. They were making the natural connections between the strategies for instruction that were encouraged and their own metacognitive processes.

Issues of “personality styles” and “attitude at work” were only of mild interest during Year Two. There was no direct plan in place to make teachers feel appreciated.

Year Three
Understanding the concept of constructivism began to evolve more directly in Year Three. Teachers began to understand math, and they transferred that realization into other areas of student learning. The concept-based integrated units of instruction helped guide constructivist thinking. Teachers were making the connections and, therefore, students began learning how to make critical connections among content areas of science and social studies, and process area of language arts, and mathematics.

More teachers assisted others and relationships began to form. Concept-based integrated instructional units were expanded by teams of teachers as they discussed and analyzed the expected student learning.

Principal-researcher:

Problem solving and decision making developed with Teachers as Leaders. Teachers volunteered to explain instructional strategies with others, feeling successful and appreciated in the process. Teachers realized the importance of learner-centered instruction, requiring students to explain their thinking and understanding. Equally important, teachers became reflective and expressed their own introspection about the success they experienced when teaching through a process, not a prescriptive program.

Change had both a positive and negative impact. Teachers who decided to loop with their students were excited and energized to follow their children to the next grade. They were willing to share their enthusiasm with others. From a negative position of change, a key support Curriculum Resource Teacher moved away, who was revered by the staff. Her replacement was recruited in the spring from a prominent local school.

Several teachers were recruited to join the CRT at our school for Year Four because they believed in the constructivist philosophy and worked in an environment that was originally designed to create a world-class class. That vision was abandoned, and the teachers saw Southwood as a place to realize their philosophical beliefs.

The impact of a group of “outsiders” joining the staff created serious issues of territorial defensiveness, among a vocal minority. This threatened the issues of Teachers as Leaders.
Change was inevitable. The identified themes and sub-topics required consistent and persistent monitoring. Teachers as Leaders became leaders when they understand the vision and provided support to others when change occurred. When teachers became leaders, the lines between leadership responsibilities started to blur.

Year Four

The focus for the year centered around building a community and building a community of learners. Issues of the previous year were looming. The size of the school continued to grow. Fifty-five teachers became 61, with 21 teachers new to the school. The issues became complex and often personalized. It was necessary to bring a consultant to the school to help sort out the issues (Daft & Lengel, 1998, 2000).

The Analysis of the Dynamics of Change strategy (Shapiro, 2003) provided six steps for defining issues. Developing a plan is a constructivist approach to organizational change, described earlier in this chapter. The constructivist philosophy became internalized when teachers and students were provided the opportunity to experience the process continuously and in a variety of ways. Involving teachers in decision making regarding how to solve internal issues in the school was constructivist in nature. The process accomplished every aspect of the identified sub-topics teachers identified as important.

The operational component provided teachers with problem solving and decision making strategies through reflective thinking. The Principal-researcher was a member of
the group, not the leader. Accepting teachers’ views on the issues and outcomes, without judgment, modeled the importance of placing teachers in a risk-free environment.

Principal-researcher:

Providing opportunities for teachers to take ownership in solving issues arising within the school setting sends an important message. (a) Opinions are accepted without judgment, (b) issues must be addressed openly and honestly, (c) solutions require all group members to agree to participate in the outcome, (d) ownership in the solution is advertised in the school community as a positive way to improve the culture of the school.

Developing teachers as leaders begins with an important task that, when completed, positively affects the learning environment.

When issues became verbalized, a plan developed for the solution, an expectation of the success of the plan was agreed upon and the staff at a school can move forward in a positive direction. The identified sub-topics of collaboration, trust building, and assuming leadership roles became a natural outgrowth of the planning process.

Year Five

By Year Five, the staff stabilized, with only eight new teachers. An Assistant Principal was hired. A plan that helped create a community of constructivist learners was developing. Teachers became part of the solution.

The plan developed through the Analysis of Dynamics of Change process remained foundational for maintaining the focus on our internal improvement process. This required specific attention and focus to ensure the plan remained alive at all times, and that each teacher knew the plan. The plan included:

1. Improving the faculty’s understanding and acceptance, of themselves
and of each other.

2. Creating trust building exercises to help improve trust—with open discussions to reduce distrust.

3. Implementing team building exercises to improve the functioning of teams.

4. Improving relationships with those who came for the other school.

5. Decentralizing—reduce team sizes

6. Developing parent programs, including a Multicultural Planning Committee, and a Community Partnership Committee.

7. Implementing a Recognition Committee was established.

A curricular structure was devised (Shapiro, 2003, pp. 241-242).

Maintaining focus on the plan required concentrated effort for follow-up. The importance of revisiting the entire plan with the school committee was also important in order to maintain the focus on the identified solutions. Every outcome required that someone would be accountable for the organizational plan to accomplish the task.

The most challenging part of seeing a plan through to fruition is the dedication, commitment, and focus, to make sure that none of the planned outcomes were neglected. It is still the responsibility of the Principal to ensure a check and balances system, someone to organize the task, and someone to check the organizer. It is a delicate balance between providing teachers with the leadership role, and maintaining a watchful eye on the process, without unnecessary interference.

As indicated throughout the journal/story, every outcome resulted from significant concentration to achieve positive results. The one area that was modified for a totally
successful outcome related to reducing team sizes. The size of the school could not eliminate the number of teachers on a team. However, the expectation of total team collaboration at all times required modification.

By Year Five, with the population stabilized, seven and eight grade-level team members became standard. Seven person teams formed naturally into groups of three and four because of the four-room pod configuration. Eight-person teams divided naturally into two groups of four. Some teams divided into different groupings when vertical teams grouped together.

However, there was still the need to bring consistency to the individual teams for purposes of maintaining communication and reinforcement of the philosophical base. During group team meetings, it was understood that all members of the grade level team meet together once a month. Any other grouping was based on the individual needs of the teacher. Specific details on each activity to accomplish the goals of the plan are found in the journal/story (Appendix 1).

Change is a part of every growing organization. Once teachers own the change, and change is viewed as part of the culture, the more acceptance occurs. As teachers participated in solutions to issues, engaged in the reflective process (identified as important by the teachers) and received the support of the Principal, the constructivist process became internalized. Teachers were immersed in constructivist thinking.

Classroom observations by the Principal-researcher revealed consistent instructional strategies that were constructivist. Children were explaining their thinking, investigating mathematical concepts, analyzing higher-level questions, and responding
thoughtfully. The Constructivist philosophy became part of the culture.

Year Six and Year Six and one-half

Each of the identified themes and sub-topics from teachers’ reflections and focus group interviews remained consistent. Each area was monitored carefully, to ensure continued implementation. The difference in Year Six, and into Year Six and one-half, came in teachers’ involvement, both directly and indirectly in maintaining the vision. The use of “constructivist” as a direct term was now part of every teachers’ language used to describe the school. The majority of teachers filled the roles previously assumed by the teachers as leaders and the Principal that reinforced the implementation of constructivism as an educational organizational model.

The staff remained stable. The constructivist philosophy and implementation were reinforced during teacher discussions, examination of student progress, and evaluating the needs of the staff. By Year Six, problem solving and decision making, in-depth and critical thinking, and reflective practice, was ingrained in the school culture.

Change was no longer viewed as a negative issue, but associated with positive experiences while continuing to explore new models for the delivery of instruction in such areas as establishing vertical teams and the effects of looping. When team members moved from a team and/or joined another one, or when new teachers became team members, they received immediate help from the entire team, with greater emphasis than in previous years. The importance of building team relationships was acknowledged immediately, and an obvious effort was made for collaboration.
The Principal-researcher relied on Teachers as Leaders to perpetuate the vision of maintaining a constructivist school. Until Year Six, a constructivist school was being created. By Year Six, and into Year Six and one-half, the Principal-researcher met with individual teachers who assumed leadership roles, to continue discussing the constructivist philosophy. This was one way to develop a philosophical maintenance plan. Once a belief system became part of the culture, teachers remained on a continuum of understanding. This required reinforcement by those who have internalized what constructivism is all about.

Summary

In this chapter, the data pertained to the study questions: (a)”What are the perceptions of teachers about constructivism as an educational organizational change model?” and (b) “What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?” were reported. Each form of data collection was reported separately within the confines of consistently identified themes among each of the data sources: (a) The constructivist philosophy, (b) change, (c) perception, (d) leadership, and (e) teachers as leaders, the addition of (f) affect.

Six identified sub-topics under the theme, “Constructivism” emerged: Understanding the concept of constructivism, problem solving and decision making within the staff, reflective practice, working in a risk-free environment, thinking in-depth and critically, and focusing on the learner. Three sub-topics emerged under the theme, “Change:” The evolution of the curriculum and understanding integration of thematic
units, change of models such as vertical teams and looping, and change of teams. Three sub-topics emerged under the theme, “Leadership:” Support of the teachers, teachers feeling appreciated, and providing a professional work environment. Six sub-topics emerged under the theme Teachers as Leaders: Collaboration, trust building and forming relationships, asking for help and receiving it, the value of personality styles, the value of a positive attitude, and taking on leadership roles. Both themes, “Perception,” and “Affect,” merged into all of the other themes.

Each of the sub-topics was consistent with other researchers’ studies identified in Chapter 2 and earlier in this chapter. However, the literature is limited in the discussion of teachers’ perceptions of a constructivist organization.

Examples from events and statements made from the six and one-half-years of journals, reflected the same fundamental topics and sub-topics as those identified in both the teacher reflections and focus groups. The difference reported was based upon the Principal-researcher’s broad perspective of the entire school over a longer period of time.

In their reflections, teachers examined the issues from the perspective of Year Four and five, since they were written in years covering the 2001-2002 and the 2002-2003 school years. In Year Six and one-half, focus group interviews revealed that teachers’ comments were seen from the perspective of a broader scope of the school, their impact on the school, and the commitment to the vision of the school as constructivist.

Before analyzing teachers’ written reflections, the Principal-researcher assumed that teachers hired during the first two years would be more likely to identify negative
issues about the struggles and conflicts that developed over the years and teachers hired during the last two years would describe the difficulty in adapting to a constructivist curriculum. In reality, this assumption did not hold true. Regardless of the number of years at the school, and the issues, (with the exception of one group who still recalled the perceived conflict toward a group of experienced teachers hired the third year, from the same school), responses were not year-specific.

As a result, no conclusions were reached regarding the difference from year 2002-2002 and 2002-2003 reflection statements the year the statement was made. This did not preclude the actual statements from being equally significant. Comments still supported the themes and subtopics.

The Principal-researcher determined that similar comments stated by two or more teachers became significant for purposes of clustering. Sub-topics remained consistent with the research. Teachers’ perceptions of constructivism as an educational organizational change model became evident through narrative examples, triangulation, and the Analysis of Dynamics of Change process.
Summary, Conclusions, Implications, and Recommendations for Further Research

Introduction

The focus of this chapter is to summarize the data, make conclusions based upon these data, discuss implications of this study, and make recommendations for further studies. Many of the items found in Chapters One, Three, and Four are revisited. This time, however, they include additional insights stemming from the research process. A review of the problem examined in this study begin this chapter, followed by the statement of purpose, research questions, and significance of the study, along with a brief statement of the population studied at the research site. The method is followed by the summary of findings and a discussion of an analysis of the data collected. The researcher then draws conclusions based on the findings. Limitations to the study follow. Implications of the study are followed by the writer’s recommendations for future studies.

Problem and Purpose

Principals must understand, demonstrate, and support student learning, yet, it is the teacher who provides a learning environment that meets the needs of each child.

The principal is accountable for student achievement with high-stakes testing. It is the
teacher who must provide instructional strategies and in-depth learning.

A growing body of evidence demonstrates the effectiveness of instruction that exists in an environment rich with literature, opportunities for problem solving, decision making, and self-assessment. Children succeed when opportunities for learning exist in a risk-free setting, where cooperative sharing of information, higher-order thinking, and the ability to solve complex problems dominate curriculum, instruction, and assessment practices (see Chapter 2).

Teachers identify instructional strategies based on the needs of individual students who bring to the educational setting their beliefs, values, cultures, prior experiences, and language. A combination of these descriptors demonstrates some constructivist beliefs.

There is limited research, however, on utilizing constructivism as a school reform model. Equally important, there is limited research on teachers’ perceptions on the impact that school reform in general might have on the teacher, and on teachers’ perceptions on developing a constructivist philosophy.

Statement of the Problem

School leaders are expected to lead reform without an understanding of how teachers are impacted.

Purpose of the study
The purpose of this seven-year longitudinal study was to examine teachers’ perceptions both of constructivism as an education organizational change model and of developing a constructivist philosophy in an entire elementary school. The study examined the background and steps that evolved throughout the reform process.

Fundamental to the purpose of the study and teachers’ perceptions, is the ability to understand how a school develops a plan that can lead a school through the process of becoming constructivist. One dimension in school reform involves the strategies implemented in the development of such a plan. When teachers own the decisions on how best to implement a constructivist environment for the school community, an additional dimension involves methods used to create a constructivist belief system that teachers would embrace.

Research Questions

Teachers’ perceptions were viewed through the specific constructs most frequently appearing in literature relating to developing an organization: (a) philosophical foundations, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders. In order to complete the investigations, the following questions were answered:

1. What are the perceptions of teachers about constructivism as an educational organizational change model?
2. What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?

Significance of the Study

This appears to be the first long-range case study of teachers’ perceptions of constructivism as an educational organizational change model, and their perceptions on developing a constructivist philosophy for an entire elementary school.

The Research Site

Southwood Elementary School is the research site. Located in South Orange County, Orlando, Florida, the school opened in 1997. The Principal-researcher is the founding Principal. The school is home to 925 students, pre-kindergarten through grade five, from 54 cultures. Middle class families, with both parents working, describe the socio-economic level of the population. Twenty-eight percent of the students are on free and reduced lunches. There is a twenty percent mobility rate.

There are sixty instructional teachers ranging in age from 22 to 53. Nine teachers are certified teachers of the gifted allowing for a classroom based inclusion model for gifted students. Twelve teachers are Nationally Board Certified, with seven more candidates completing the process in 2004. Twenty-eight percent of the staff hold Master’s Degrees. The majority of teachers have less than six year’s experience.
Students who speak other languages are included in each classroom, with two English as Speakers of Other Languages (ESOL) teachers providing resource services to the teachers. Several staff members are bilingual. There are two teachers for learning disabled students.

The fine arts department provides programs for every child in vocal and instrumental music, electronic keyboarding laboratory, art, and physical education. Chorus is provided for grades four and five, and a stringed instrument program is provided for interested fourth and fifth graders.

There are 225 computers throughout the classrooms, with 25 located in the Media Center laboratory. Twenty-five more computers were added in 2004 from money provided through PTA fundraisers, and School Advisory Council’s use of state provided School Improvement money. Teachers are responsible for computer instruction in kindergarten through grade five.

The research site achieved state and national recognition in 2002 and 2003 for improved test scores (Annual Yearly Progress). The State Department of Education assigns report card-style letter grades to schools, from criteria established by the State DOE. The letter grade identifies the level students’ achieved on the state’s standardized tests and if the students’ met the required standards for student improvement from one year to the next in grades three, four, and five. Based upon the state criteria, the school received a letter grade of A, each of the past two years (Appendix 6).
Statement of Method

This was a single-site case study conducted in the school described above. Three methods of data collection were used: Two sets of reflections, written by all teachers at the end of two different school years, 2001-2002, and 2002-2003, focus group interviews conducted with all teachers, and the Principal-researcher’s seven years of journals. The journals were compiled into story form, called the “Southwood Story” (Appendix 1).

Teacher reflections were written in May, at the end of the school year 2001-2002, and again in school year 2002-2003, by all 60 teachers. Focus group interviews were conducted during December of 2003 by all 60 teachers. Principal-researcher journals reflect the time from January of 1997 through December of 2003. This provided a way to analyze teachers’ perceptions of a constructivist learning environment and their role in the process of the evolution. Documentation was analyzed in teachers’ reflections for years four and five, in focus groups for year six, and Principal-researcher’s journal/story for seven years.

The data were analyzed through triangulation of all three data sources. Teacher reflections were gathered from the archives located in the school vault. When the teacher reflections were written, they were perused by the Principal. However, they were not analyzed until this study was conducted. Analysis of teacher reflections provided an opportunity to evaluate teachers’ perceptions of their experiences within a constructivist environment, from one year to the next, while providing insight into the research questions.

Focus groups were conducted by the Curriculum Resource Teacher.
Audio-tapes were made. Transcriptions were compiled and reviewed by the Principal-researcher. Member checking (Stake, 1995) occurred when rough drafts of the transcriptions were returned to the teachers to determine if the drafts reflected the intent of the original statements. Teachers edited the transcripts and returned them to the Curriculum Teacher. Finally, the focus groups’ edited transcripts were given to the Principal-researcher for analysis.

Two independent code checkers were selected by the Principal-researcher. One code checker, currently a doctoral candidate, completed the NIH process from the Institutional Review Board at the University of Central Florida. He understands the procedures and techniques used in the interview process. The second code checker is a Nationally Board Certified teacher who recently completed her Master’s Degree from National Louis University, where she analyzed data through the use of a coding system. They analyzed the coding, patterns, and themes, and provided feedback (Merriam, 1998).

An empirical reader was selected, based on the recommendation of Stake (1995). An empirical reader is “useful because it reminds the writer both of privilege and constraint” (p. 126). An empirical reader edits the document for readability and content, so that the text makes sense to the reader. The Principal-researcher selected a high school English teacher to fill that role.

Three peer examiners (Merriam, 1998) read the documents to check for clarity and authenticity. The examiners are: one teacher, one guidance counselor, and one Assistant Principal, all of whom worked at the research site for more than three years.
Each of them, from the perspective of the Principal-researcher, read the documents from a critical position and provided honest feedback.

After reviewing all documents, first, from the perspective of determining patterns, possible themes, and sub-topics; then, from the finding of themes and sub-topics, a coding system developed. During the first phase of document coding the Principal-researcher itemized all statements and examined the data sources to determine if the grade level of the respondents made a difference in the comments. For example, the assumption: In comparing years 2001-2002, and 2002-2003, one team more than another might identify specific areas that would not become evident with any other team. Or, comments could reflect a particular issue in one year more than another. The assumption from focus groups: Since the groups originally were divided according to their years of employment at the research site, one group of teachers might identify one issue more than any other group.

Gathering and Organizing the Data

Organization of the data sets:

1. Identified common statements made by classroom teachers when they expressed their views about working in a constructivist school.

2. Identified clusters of common statements to find patterns.

3. Reviewed the five constructs that most appear in the literature relating to developing an organization: (a) philosophical foundation that is constructivist, (b) change, (c) perceptions, (d) leadership, and (e) teachers as leaders. Determined if the clusters of statements were part of one of these broader themes, created a sub-
topic for those statements that did not specifically state the construct; but rather could be identified within one of the five constructs.

4. Reviewed the research to determine if other authors used similar expressions or statements in identifying a specific theme or idea. For example, Maxwell (1995) identified the behaviors of teacher leaders. He stated that teachers as leaders were ones who helped form relationships among their teams, while modeling the ability to build trust. Based on Maxwell’s work, the Principal-researcher identified “trust building” and “forming relationships” as a sub-topic of Teachers as Leaders. The identified indicators fit into that sub-topic and theme. Determining the indicators, returning to the literature, verifying the decision to place the identified indicators with the theme and sub-topic provided verification for the Principal-researcher.

The Principal-researcher then met with the code checkers to review the raw data and validate the findings. They both agreed that there was a category missing, based upon the comments made consistently in the data sources. The category was identified as an affect category. That category identified comments that indicated teachers’ feelings about the constructivist environment (Chapter 4).

As indicated in Chapter 4, statements written from teachers’ reflections were based on years Four and Five, when the term constructivist was just beginning to surface among the teachers during discussions of student learning strategies. Therefore, the actual term was not stated specifically. However, constructivist-based influence on teachers’ responses to the four reflection questions were extrapolated and listed among the clusters of common phrases. By 2003-2004 the term constructivist was used consistently among the teachers.
The following identifies the common statements and phrases used by teachers in the teacher data sources, and clustered into groups called indicators. Themes developed from the specific areas of study that most frequently appear in the literature relating to more global topics in the development of an organization: the philosophy, change, perception, leadership, and teachers as leaders, and later, affect became a theme.

<table>
<thead>
<tr>
<th>Code</th>
<th>Theme / Sub-topic</th>
<th>identifying indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CP  Constructivist Philosophy</strong></td>
<td>Use of the vision, higher order thinking, thinking “outside the box,” non-prescriptive curriculum.</td>
<td></td>
</tr>
<tr>
<td>CP 1.</td>
<td>(sub topic 1.)</td>
<td>understanding the concept</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thinking about thinking; metacognitive skills; probing to think on my own; figure things out; not given an answer, but justify my solution; find the problem; explain; constructing our own knowledge.</td>
</tr>
<tr>
<td></td>
<td>overlapping indicators exist between the concept of constructivism, problem solving, and decision making</td>
<td></td>
</tr>
<tr>
<td>CP 2.</td>
<td>Problem solving – decision making</td>
<td>Questions, find ways to make it better, Principal asked what I want to do, think first, plan, answers not given.</td>
</tr>
<tr>
<td>CP 3.</td>
<td>Reflective Practice</td>
<td>Discuss what happened, explain why, do it better next time, examine, pre-requisite skills, dig deeper, look back-then look forward.</td>
</tr>
<tr>
<td>CP 4.</td>
<td>Risk-free environment</td>
<td>Try it out, experiment, if it doesn’t work, try again, work it out, think creatively.</td>
</tr>
<tr>
<td>CP 5.</td>
<td>Learner-centered</td>
<td>How children learn, think of the kids first, observe, listen, watch, provide opportunities,</td>
</tr>
</tbody>
</table>
life-long learning, creative approach, kids can explain their thinking.

### C  Change

Movement, disruption, anticipation of something being different than before.

**C1. Evolution of curriculum**
Understanding—math, integrated units, any subject area that changes as it is learned, finding better ways to instruct-Resistance/excitement, adding on / substituting new strategies.

**C2. Change of models**
Vertical team concept--resistance/excitement
Looping concept – resistance/excitement (chapter 4).

**C3. Change of teams**
Disruption when someone leaves/joins the team, teachers choosing to move seen as negative/positive experience.

### L  Leadership

Focus on the Principal – negative/positive experience.

**L1. Support of teachers**
Feel supported, provided with ideas, suggestions, help with students, help with parents, not threatened by interaction, empowers us, trusts us to make decisions.

**L2. Feeling appreciated**
Spends time making teachers feel appreciated, recognized-publicly and in private, complimentary.

**L3. Provides a professional work environment**
Provided materials and supplies because teacher need them, values input into what teachers want, provided time to work with team mates, feel comfortable, safe.

### TL  Teachers as Leaders

The assumption by the researcher was that all items identified, relating to team building belonged in this section. If someone initiates a group getting together or organizes a group project, then a leader is recognized (explained in Chapter 4).

**TL1. Collaboration**
Collaborating, getting together as a group,
planning together, working together.

| TL1   | Trust building and forming relationships | Like my team, like working with my pod members, work well together, get along, know value of communication, became a team. |
| TL3   | Asked for help and received it           | Willing to ask for help, teachers help me. |
| TL4   | Value of personality styles and use of Gregorc (Chapter 4) | Understand each other, understand myself, easier to work with people, laugh. |
| TL5   | Value of positive Attitude—FISH philosophy | FISH helped me, attitude, play, make their day, importance of positive attitude. |
| TL6   | Took on leadership roles                | Leadership, mentor, committee work/chair. |

**A Affect**

Feeling words: happy, love, excited, family.
Findings

The Principal-researcher concluded that neither factors of grade level, in the case of reflections, nor years of like experience in the case of focus group interviews, were significant enough to identify either as a contributing factor when linked to the research questions.

Statements in written reflections and in focus group interviews often overlapped from one question to the other. By the fourth year of the school, in comments written for 2001-2002, the majority of the teachers stated they were challenged in a positive way as they learned better instructional strategies than the prior year and they felt more comfortable with the curriculum. They felt more reflective. Several references were made about being mentally stretched. One teacher stated, “Even when I think I can’t think outside the box any further, I can, and I love it. I couldn’t teach anywhere else.”

It was evident that teachers recognized the need for positive support of each other in their quest for better understanding of instruction. This required their continuous analysis of what was happening with their students. As a result, teachers commented frequently on the time they spent with their team mates, discussing better ways to work with students, making content materials more challenging and meaningful, and analyzing their curriculum. Their statements indicate that they recognized the value in working with their peers and they were flattered when others asked for their advice.

Comments about accepting individual differences were evident. The level of
awareness was high in recognizing that, in order for a staff to grow, they must work and get along together. In a constructivist environment, it takes everyone joining together to create the environment necessary for all students and teachers to succeed. The impact of using specific strategies for helping staff members understand the importance of accepting one and others was evident in the interaction that was observed throughout the year, especially beginning year five.

Teachers referred consistently throughout their reflections to the school as family. Statements from the reflections at the end of the year showed significant growth in teachers’ working together, as the majority described how their teams collaborated.

By the fifth year, bonding began to occur at higher rates than before. Fewer people were new to the staff since budget cuts required a reduction in staff numbers by eight. Teachers that remained on the staff became even more committed to the constructivist approach being used in curriculum and instruction.

Teachers identified areas where they were taking on leadership roles. The National Board Certification process was also emphasized from two perspectives; the professional growth teachers made when completing the process: and the level of support they received from others.

Students continued to improve. Standardized test scores were high, in spite of decreased emphasis on teaching to the test. Teachers began recognizing that children were learning at higher rates than seen before. They began commenting that they could see excellent results from the way students were taught. Teachers could see that the curriculum was highly individualized according to each child’s needs. In addition, there
was consistency in philosophy and the language expressing constructivistic learning, from
one teacher to the other.

Focus group interviews occurred in year seven. The staff returned to 60
members. Four teachers returned to the school after leaving for one year. The returning
teachers were strong supporters of the school and added a positive dimension to the staff.

Additional findings, based on teacher responses, were identified in the same
themes and sub-topics as indicated above. Findings from teacher statements are supported
from the Principal-researcher’s journals/story. Differences between the teachers’ written
and interview responses compared to the Principal-researcher journals is the difference in
perceptions since issues are often seen from two distinct perspectives. Conclusions listed
below are those found in teachers’ responses and the Principal-researcher journals.

Research Question One

What are the perceptions of teachers about constructivism as an educational
organizational change model?

1. In year one and two, 12 teachers joined together in classes to receive
endorsement as teachers of the gifted. This provided time together for teachers
and the Principal-researcher to discuss, think, and build a background in
understanding about how to design higher-level thinking activities within their
classrooms. Teachers also developed an awareness of individual differences in
styles of learning and thinking for both themselves, as teachers, and their
students. They discussed the need to up-level all activities as soon as students
were developmentally ready.
2. Summer writing teams (made up of each member of a grade level team) at the end of school year one, two, and three, provided time together to think about what students should know and be able to do. The curriculum design model for creating concept-based integrated thematic units of study became a clear system for curriculum design learning in a constructivist environment.

3. Teachers can describe what they are doing in their classrooms and why. Teachers feel empowered because they are not micro-managed by the Principal. They can explain the rationale for their decisions.

4. Teachers have the freedom to experiment and try new things.

5. Teachers are provided time for observing other teachers, and discussing their observations with each other. Valuable learning occurs for both teachers.

6. In-service workshops are generally individualized. Teachers select from a variety of topics and participate in Study Groups around specific topics. In this way teachers receive strategies for teaching based upon their individual needs and interests. Teachers develop and facilitate Study Groups. In this way, innovative instructional strategies and ideas are shared by and with all teachers.

7. Materials and supplies are provided at the request of teachers, based upon the constructivist philosophy. Support materials provide teachers with a
continuous supply of necessary resources. Constructivist instruction requires material rich in a variety of genres, teacher resources, integrated units, and hands-on experiences for all subject areas.

8. Teachers make the connection between materials and resources that support the constructivist approach to learning, and the strategies needed to implement and utilize the materials and resources provided.

Research Question Two

What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?

Responses that were consistent from all data sources supported this question with the following statements:

1. It is important to have the same philosophy so that everyone works with the same belief system and toward the same goals.

2. The Principal must provide the vision. Teachers feel successful because the vision never changes and everyone agrees with the philosophy (or they wouldn’t be here).

3. If the school only had pockets of teachers with the same philosophy, the school wouldn’t work. Everyone must believe in the constructivist approach. People who do not believe in it can go to schools that have single textbooks and teach to the test.

4. We have to think about our own thinking, and that is part of the constructivist way.
5. I just really like the constructivist philosophy because we know that kids couldn’t become productive in the real world if all they learned came from worksheets and single textbooks. Our kids know how to problem solve and think at high levels.

6. Summer school operated for lower performing students during the end of year five and six, with class sizes of less than 12, provided additional

7. Opportunities to implement and experiment with strategies that were constructivistic. Teachers then adapted those ideas into larger class sizes during the academic year.

Principal-researcher journal/story

One area that significantly affects schools in the state of this research study (Florida). That is the area of student assessment. Within the research site, student assessment is conducted in both formal and informal ways. Student data is collected and analyzed, particularly from the perspective of students who do not maintain the expected levels of improvement. That analysis is done with each teacher, generally in pull-out days, so discussions can evolve into strategies for supporting the teacher.

Students who experience difficulties, academically, socially, or behaviorally, are studied and analyzed with a team of support staff who assist the classroom teacher. Most frequently that support team consists of the Principal, guidance counselor, exceptional education teacher, and the
classroom teacher. Once again the process of problem solving is highly constructivist.

The reality of assessment in the state of Florida is one of government control. State designated standardized testing is mandated. As discussed earlier, principals feel enormous pressure that translates to pressure on teachers for students to perform at the highest levels possible. There is much at stake. Principals, who have a high level of student achievement, as determined by state criteria, are eligible for bonus money. Each school district also establishes their own criteria, that allows Principals the opportunity to apply for a bonus. If a school attains a high level of improvement in test scores, the teachers are eligible for bonus money. Letter grades of A are advertised and often flaunted. Comparisons among schools receive headlines in the local newspapers.

As a result, many schools believe that in order to ensure successful test scores among the students, it can not rely on teacher’s ability to think, problem solve, or make decisions about student learning. Instead, many schools resort to prescripted teacher’s manuals and specific textbooks, with accompanying assessments. In this environment teachers do what they are told.

Southwood Elementary test scores are high. A letter grade of A was achieved for the last two years, with state and national recognition for improvement among the students. Yet, no one commented about standardized testing in any of the discussions or in the written reflections.

Students learn from constructivist strategies for instruction. Each year students and teachers become more sophisticated in their ability to think, reason, solve problems and make decisions, while thinking at higher levels. Teachers and students become collaborators in learning.
Southwood Elementary School is in its seventh year. Teachers understand a constructivist philosophy. They know what it looks like, and they believe in what they are doing.

However, in the final analysis, there must be in place a philosophical maintenance plan. A plan revisits the school vision, goals, and expectations every few years. In year seven, Southwood Elementary used the Analysis of the Dynamics of Change (Shapiro, 1996, 2003), process to establish a plan that secures that the constructivist philosophy is maintained (written three years ago). An updated process includes review of the previous plan, followed by a determination of which outcomes to keep at status quo, which outcomes need revision and which outcomes are no longer relevant.

The Principal could make the decision to reconvene a Planning Committee and proceed with a new plan, or a teacher as leader may lead the process. The Principal remains a participant. The Tri-partite theory of Institutional Change and Succession supports the need for continuous review of institutional goals (Shapiro, Benjamin & Hunt, 1995; Wilson, C.; Byar, T., Shapiro, A., Schell, S., 1996).
Limitations to the Study

This was a single-site case study where data were collected at only one school. The ability to generalize these findings to the rest of the school community would be unrealistic. In the year 2004, at the completion of this study, government regulations and local and state control dominate the educational systems in Florida. High-stakes testing gives the perception that rigid, prescriptive curriculum will produce high scores on standardized tests. This belief hampers the opportunity for a constructivist environment in other settings.

Another limitation occurs in the high mobility rate of staff during the first years when creating a philosophical foundation. This can be attributed to a variety of unrelated factors: (a) teachers who need a high level of structure do not function well in a constructivist environment; (b) the opportunity to move to another school, if a teacher is unsatisfied (in a large metropolitan area) is possible; (c) a young staff is often mobile because of spouse transfers, marriages, pregnancies, etcetera. When 85% of the staff remained at the school, philosophical issues became more quickly implemented.

The length of time it takes to stabilize the mobility of a large staff in school appear to be age-group specific. The younger the virtually all female staff, the higher the mobility. A limitation exists in replicating the length of time for a constructivist philosophy to become a part of the culture. It takes much longer for teachers to acquire the skills necessary to implement a constructivist philosophy than it takes for teachers to
read a teacher’s manual and follow scripted directions. In that environment no decisions are needed. Thinking takes longer than just doing things.

A local university recognized the value of placing the same interns at Southwood Elementary. In 2004, interns were allowed to remain at the school for both their Junior and Senior internships, at the request of the University students. In this way, students learn to teach constructivistically from the beginning of their teaching experiences and become immersed in the constructivist culture. Interns, who are encouraged to stay at the school for two years, are usually hired as full-time teachers upon graduation.

Creating a constructivist culture requires a highly educated staff with a desire to learn, experiment, think, discuss, self-assess, and work together. Continuity, for purposes of implementation, requires a low mobility of staff that was willing to stay together for bonding, developing a high level of trust, and maintaining a community of learners.

A Principal must have a thorough knowledge of every level of the curriculum, understand curriculum design, and recognize academic and personal needs of a staff in order to provide a constructivist climate for student and staff learning. The Principal must be willing to stay in the environment long enough for the philosophy to become entrenched (In the case of Southwood Elementary School, it took seven years). In essence, generalizability cannot be assumed.
Conclusions

Based upon the data collected, and the subsequent analyses, Southwood Elementary School determined the following to answer the two research questions: First, “What are the perceptions of teachers about constructivism as an educational organizational change model?” Based upon analysis of the data sources, teachers employed at Southwood Elementary School for the last seven years, strongly support constructivism as an educational organizational change model within each of the constructs: (a) understanding the philosophical foundations of constructivism, (b) change, (c) perception, (d) leadership, (e) teachers as leaders. The construct of (f) affect evolved from the study. Each construct contains indicators as described by the teachers. Following the indicators, a brief summary of the research occurs.

Philosophical Foundations of Constructivist

Teachers’ perceptions of the philosophical foundations of constructivism produced five indicators that teachers deemed important based upon the analysis described also in Chapters Three and Four: understanding the concept of constructivism, problem solving and decision making, reflective practice, working in a risk-free environment, providing a learner-centered school.
Understanding the concept of constructivism:

Thinking about their own thinking; probing to think on my own; figure things out; justify my solutions; find the problem; explain

- Teachers designed a plan, using a constructivist approach, which provided an organizational model for the school.
- Teachers perceive the necessity of a constructivist change to implement the reform strategy.
- Teachers perceived the importance of continuity of philosophical beliefs among the staff.

Problem solving and decision making:

Find ways to make it better; think first, plan. Become part of the solution, construct our own knowledge, don’t expect an answer, figure things out.

- Finding solutions to defined issues became the responsibility of the teachers.
- Teachers took ownership in the solutions.
- Solutions were accompanied by commitments to ensure the issues were resolved.
- Teachers identified issues and concerns from their personal perspectives, and the perspectives of their colleagues.
- Curriculum decisions, recognition of staff, and parent involvement became issues to resolve.
- Those who saw an issue to resolve became involved in identifying the source of the issue, the background of those who experienced the issue, and possible solutions to design.
- Teachers recognized that decision making and problem solving was a
complex process that required thinking, utilizing creative ideas, accepting individual differences of opinions, and patience.

- They solved problems relating to student learning when they thought together, shared, and figured out complex issues relating to curriculum, instruction and assessment.

- Teachers who experienced problem solving resulting in discussions where they examined and analyzed difficult educational issues think constructivistically.

Reflective practice:

Discuss what happened, explain why, examine, ask what prerequisite skills are missing, look back, then, look forward.

- Teachers were provided time away from the classroom to reflect, discuss, and plan ways to effectively implement constructivist practices. They spend time analyzing the effectiveness of their instruction, curriculum, and assessment.

Working in a risk-free environment:

Try it out, if it works, make it better, if it doesn’t figure out why, experiment, try again, think creatively. Everyone thinks and learns in different ways, and that is O.K.

- Trial and error are acceptable teaching strategies, when followed by reflective practice.

Providing a learner centered school:

Think of the kids first, observe, listen, watch, create life-long learners, kids can explain their thinking.

- Instructional strategies are based upon individual needs of the students.

- Continuous individual assessment provides the guide for instruction.
Each of the constructivist processes engaged teachers in opportunities to develop a school that would employ all of the experiences that were constructivist. They had personal ownership in the outcome. They participated in creating a constructivist model. Teachers soon recognized what had happened. They were using a constructivist approach to develop an educational organizational change model. This led naturally into the second research question:

Secondly, “What are teachers’ perceptions of developing a constructivist philosophy in a total elementary school?” Based upon analysis of the data sources, teachers employed at Southwood during the last seven years strongly supported the constructivist philosophy for the total school.

Change

The second construct: Change, occurs in a variety of ways at the elementary school level. Change is specific as changing from one classroom to another, or change as seen when a new person is hired onto a grade level team to change as illusive as teachers’ anticipation of something that might be different than before. Each change produces a new set of dynamics within a school. Teachers’ perceptions of the philosophical foundations of constructivism produced three indicators that teachers deemed important: Evolution of the curriculum, change of models, change of teams.

Evolution of the curriculum:

Understanding how to teach math for understanding, finding better ways to get in-depth and use higher-order thinking, learning more about what and how to instruct.

- Teachers instruct, based upon a child’s prior knowledge.
• Curriculum changes with the needs of each child as they acquire new understanding.

• Constructivist learning occurs when teachers make continuous adjustments in the curriculum, because of the students’ needs.

Perception

The third construct: Perception, is embedded in all of the others. Teachers’ views of situations, beliefs, and understandings, drive how the teacher responds to situations, decision making and problem solving situations.

Leadership

Teachers’ perceptions of Leadership places the focus on the school Principal and produced three indicators that teachers deemed important. The leader supports the teachers, expresses feelings of appreciation for the teachers’ work, and provides a professional work environment.

Support of the teachers:

I want to feel supported, I need support with my students, not threatened by interactions, empowers us, trusts us to make decisions, provides us with ideas and suggestions.

• Leaders are members of a collaborative environment.

• Teachers want the Principal to express and demonstrate sincere beliefs that the teachers and leaders work together to make a school work. They join together with, and for students, parents, and other teachers.

• The Principal models constructivist thinking and problem solving.
Feeling appreciated:

The Principal spends time personally acknowledging me for the work I am doing, recognizes me publicly and in private.

- Leaders frequently take time to interact with teachers to recognize their work.
- Principals personally spend time with teachers to provide assistance with students, parents, instructional strategies.

Teachers as Leaders

Teachers’ perceptions of Teachers as Leaders provide the core support group that will maintain a philosophical maintenance plan. When a teacher initiates a group gathering, organizes a group project, or develops a new idea, then a leader emerges. Teachers identify leaders as one of a group that can be depended upon for help. Teachers produced six indicators they deemed important: collaboration, trust building and forming relationships, asking for help and receiving it, the value of understanding personality styles, the value of a positive attitude, taking on leadership roles.

Collaboration:

There is collaboration on the team, we plan together.

- Teachers value a team that works together, planning, and brainstorming ideas.

Trust Building and Forming Relationships:

We work well together, we get along, we know the value of communication with each other, we became a team.

- Once a team bonds together, powerful learning occurs.
• Involvement in the plan provided a framework for community, team, trust, and relationship building.

Asking for help and receiving it.

I am willing to ask for help, we can depend on someone to help us out when we need it.

• Teachers become more secure in their instruction when they can rely on help from someone they trust and respect.

There is value in understanding personality styles of the staff.

We understand each other better, we laugh at each other for our uniqueness, it is easier to work with people when you understand them.

• A system needs to operate in the school, where each person learns of the personality of those in the environment.

• Reinforcing the concepts of individual personalities is necessary on a continuing basis.

The value of a positive attitude:

Spend time talking and laughing; the importance of a positive attitude.

• Creating an environment that recognizes and reinforces the importance of a positive attitude is critical to an environment that grows professionally.

Taking on leadership roles:

I’m taking on more leadership roles, mentor others, chair committees, organizing events.

• Leadership roles become the expectation for teachers as leaders.
Affect

Teachers’ perceptions’ of areas of Affect produced expressions, rather than indicators. This appears from the research to remain the most fundamentally important of all the constructs. Without an environment that meets the needs in areas of affect, virtually no professional growth will occur for the staff. These are emotional words, expressions of needs and wants that create an effective work environment.

Expressions stated by teachers included:

- I laugh, we are family, I love my team, I am excited about working here, I couldn’t work anywhere else.
- A school environment that is constructivist understands the importance of meeting the social and emotional needs of each of the staff, and students.

Additional Conclusions:

- Teachers communicated, bonded, trusted, and developed stronger professional relationships when they shared mutual beliefs about how students learn.
- Teachers recognized that leadership of the school should provide support for teachers in the appreciations of teachers’ work and providing a professional work environment.
- Teachers can not understand a constructivist philosophy unless they experienced the process.
- As a result of personal experience, teachers understand how children learn more effectively with this process.
• Teachers described the importance of continuity for student learning from one grade to the next. When the language for discussion of constructivist beliefs remains consistent, student learning continues to build on familiar concepts.

• The same is true for teachers. When the language for communicating in constructivist terms remained consistent among teachers, the ability to build stronger instructional strategies became evident.

• Teachers frequently identified the importance of everyone in the school supporting a constructivist philosophy. Constructivist beliefs are built upon numerous concepts and described by teachers with terms identified earlier such as: hands-on experiences, problem solving, decision making, thinking at higher-levels, probing questions, understanding the background of students, and their prior knowledge.

• Students who are provided the same language, processes, and strategies for learning from one year to the next are more successful because of the continuity in their instruction.

Students experience constructivistic instruction through:

• Math for understanding—students explain their reasoning

• Concept-based integrated thematic units of instruction centered around science and/or social studies concepts

• Writing to explain
• Reading for background knowledge, including narrative and expository text within content areas, and analyzing authors’ work
• Exploratory learning through hands-on experiences
• Asking and responding to higher-level questions
• Music, art, and physical education integrate with classroom concepts.

All of these instructional strategies are constructivist-based and exist within each classroom at the research site. Teachers’ statements, identified from the data sources, described the importance of everyone in the school subscribing to the same philosophy—a constructivist philosophy.

Implications of the Study

An entire elementary school, (which is unique in research literature), became constructivist. Teachers’ perceptions of both constructivism as an educational organizational change model and the development of a constructivist philosophy showed positive results in the research study.

Notwithstanding the limitations of this study described earlier in this chapter, the model of schooling found at this research site could be emulated by other schools willing to examine the reasons for the success of the school. First, a Principal must be willing to embed standardized high-stakes testing within the context of the thinking and problem solving, as part of an integrated curriculum.

A constructivist approach to developing an organizational change model provides teachers with the ownership needed in order for teachers to see the school as belonging to them. They take pride in accomplishments for themselves, their colleagues, and the students. Schools willing to involve teachers in the active process of determining the best practices for instruction, strategies for working together, and a willingness to create a democratic working environment, will create a school where collective ownership in successes and problem solving challenges result in positive outcomes for all involved.

Student achievement is high when a philosophical belief that is constructivist is applied to curriculum, instruction, and assessment throughout the entire school. Each student and teacher discusses learning by consistently speaking the language of learning. High levels of thinking and problem solving generate high performance in assessment. Teaching children and teachers to think prepares all members of the school to value and love learning.

A family of learners develops in a constructivist school. The goal of preparing students to become productive and thoughtful citizens is supported in an environment where a community of learners exist.

The role of Principal is pivotal. The principal must believe in, and model constructivism. A Principal must believe in, and model, constructivist practices for this to work.

Constructivist principals value personal and collective opportunities to learn, think, question, explain, and solve problems together with other members of the staff. They are more than managers of things, they are managers of thinking. The Principal must be the head learner.
Conclusions reached by the Principal-researcher are not unlike those found by other authors and researchers, identified in Chapter Two, often describing settings from a university or private school setting (Wilson & Daviss, 1994). However, the research site was a middle-class public school, highly diverse in cultures, large by elementary school standards, and in a state highly regulated by standardized testing and accountability requirements.

A constructivist educational organizational change model is supported by the teachers who see the value in developing a constructivist philosophy in a total elementary school.

Individual learning strategies are described by many authors such as those identified in Chapter Two. However, the constructivist philosophy employs all of the best practices for curriculum, instruction, and assessment. Current literature describes (in often dramatic detail) specific instructional strategies that are often incorporated in bits and pieces and scattered randomly around the curriculum. The random approach for establishing a solid philosophical foundation for instruction, is just that, random. As a result, language is provided students that expresses the concept that thinking about thinking is not internalized.

Students need the repetitive nature of language, experiences, and problem solving. Consistency is needed in all areas of the curriculum (confirmed in Principal-researcher interviews with principals), Isaacson (2002).
A constructivist environment is consistent. A consistent constructive curriculum is not an oxymoron. It is not randomly scattered ideas that eventually find a place to land. A constructivist place for learning is well planned and well developed. It is a solid philosophy.

Included in a constructivist environment is the importance of providing all teachers and students with opportunities to make decisions that effect their learning. It does require giving up control. Principals give up control to the teachers, teachers to each other, and teachers to their students. All members respect the contribution each one makes to the learning experience.

Important implications of this study exist in the level of student achievement and teacher ownership. Designing and developing a school philosophy and organizational plan can be accomplished within a constructivist environment if a school community believes it is best for children and if they are willing to invest in the time and effort, remain patient, and stay the course.

There are specific classes at the middle and high school developed for high achieving students, tracked into advanced classes, that use high level questioning, project-based learning, and problem solving strategies. Children do not need to wait until grade six before they are provided opportunities to think at high levels.

Therefore, another implication is the value of starting children learning constructivistically beginning at age five. Students at Southwood Elementary School understand how to learn, they speak the language of “explaining their thinking” at age five.
Finally, the school community must invest time in developing a philosophical maintenance plan, explained earlier in this chapter. This requires continuous reevaluation on the part of all members of the school community. In this way, the philosophical position will be sustained over time.

Summary of Implications

1. Constructivism can be used as an educational organizational change model to reform an entire elementary school

2. An underpinning of such a change strategy requires developing and implementing a school-wide constructivist philosophy and practice.

3. The importance of affect in the learning environment is critical to the success of a school. Teachers must feel appreciated, valued, recognized, and accepted as part of the school family.

4. Teachers believe that individual test scores increase from teaching constructivistically.

5. A philosophical maintenance plan is necessary to continue the constructivist process.

6. The role of Principal is pivotal. The principal must believe in, and model constructivism. They are more than managers of things, they are managers of thinking.

7. The value of starting children learning constructivistically, beginning at age five, creates a foundation for understanding that is automatic for students at Southwood Elementary School. Students understand how to learn.
They speak the language of “explaining their thinking” at age five.

8. When teachers and the leader work together to solve problems, make mutually agreed upon decisions, ask each other hard questions, seek solutions that acts in everyone’s best interest, then constructivist thinking becomes internalized.

9. A common purpose was achieved. Additionally, both a system of communication and a system of collaboration were established to develop the common purpose. This supports Barnard’s (1938) statement as reported by Shapiro, 2000), that these three are indispensable elements of an organization.

10. Teachers’ perceptions were identified based upon the major constructs (themes) that developed and the guiding principals (sub-topics) that emerged.

Recommendations for Further Research

1. Future studies may explore other schools that provide a constructivist environment for teachers and students in a public school environment. In this way schools with similar beliefs could collaborate.

2. Another researcher might return to the research site, within a few years, to see if the constructivist philosophy endured, developed, and followed its philosophical maintenance plan.

3. Compare the achievement of students from Southwood Elementary School, with their progress through High School, with a constructivist background for learning; in matched pairs, and with students from a prescriptive program in two areas: academic success and love of learning. A long range study could be conducted that tracked the students from Southwood through to their post-
high-school years, to identify the value of teaching constructivistically
beginning at age five.

4. Seek and find other constructivist principals who studied the process they are
using to reform their public schools utilizing a constructivist philosophy.
Examine their process used in creating an educational organizational change
model and ways they developed a constructivist philosophy in an entire
elementary school.

5. Identify students who completed all six years at the research site, during their
middle school, high school, and post secondary years and track their
individual progress.

Summary of the Chapter

In this chapter, the problem and the purpose were reviewed from Chapters One
and Three, this time with a perspective of the researcher after conducting the study and
analyzing the data. The research questions were answered from the perspective of two
data sources from the teachers with the added perspective of the Principal-researcher’s
journal/story. The limitations were extended from Chapter One. The summary of
findings as they related to the study question was discussed and the conclusions were
reported. Implications of the study were discussed, and the recommendations for future
studies reflected some of the problems stated in the limitations.
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Appendices
Preface

As an elementary principal and teacher for forty-five years, I have always been fascinated with how children learn. A case study approach provides me the opportunity to investigate, analyze, and practice the many intricacies involved in creating a non-traditional school that implements a constructivist philosophy in a kindergarten through grade five elementary school, with 100 employees. The journey starts with the opening of a new school and chronicles the adventures over a six-year period that changed the school from teacher-centered to student-centered environment. A constructivist model was created to reach the goal whereby constructivist teachers lead other teachers. In this environment teachers and students develop into active, inquisitive, problem solvers.

The story of Southwood Elementary School takes place in Orange County, Florida. The school system is the 14th largest school system in the nation and the 5th largest in Florida. There are 104 elementary schools that provide for 72,000 elementary students. There are five regional Learning Communities. Southwood Elementary is in the South Learning Community. The school opened in 1997 with 670 students. At the completion of this story, six and one-half years later, in 2004, there were 960 students.

The District Office is known as the Educational Leadership Center. Each Learning Community provides an Area Superintendent and a variety of support services. The Principal-researcher’s supervisor is the Area Superintendent.
The Southwood Story

As the story of Southwood Elementary unfolds, the reader will experience a journey through trials, tribulations, joys, sorrows, adventures, and learning as the teachers, students, parents, and me, the Principal-researcher, grew to become the learners in a constructivist school we are today. In order to understand how the Southwood Elementary learning community evolved, it becomes necessary to know the details of the story. The Odyssey chronicles the first six years as I tell a story that unfolds through my lense, the Principal-researcher, and continues to this day.

It was January 1997, when my lifelong dream came true. I was appointed to open Southwood Elementary School for 720 students. After a lifetime in education beginning in 1959, in roles ranging from teacher to supervisor to principal, I thought I could handle anything. In many ways ignorance is definitely bliss, as not knowing is sometimes better than knowing, especially if knowing a lot evolves from not knowing nearly enough.

For the next six months I would have a new home at the district office, known as the Educational Leadership Center, to dream and learn from the ground up, how to create a school. I was fortunate on several other levels: (1) Three other principals would also open schools in the fall of 1997, with the same structural design. We were housed in adjoining cubicles and became each other’s best supporters. (For the purpose of understanding each principal’s style I will refer to the Gregorc Personality Styles indicators that I will explain later); (2) The other principals and I became very special
friends. Although we had different philosophies and each of us carried, luggage designed
in different ways on this journey, inside, each of us had a strong vision and belief in
children that brought us together on the same path; (3) The Central Office staff,
including our Elementary Superintendent and Directors of Purchasing and Budget,
became our support system; (4) Each of us principals could bring aboard a secretary and
very early into the process, a Technology Specialist; (5) In July I was assigned an
assistant principal. In addition, an administrative intern helped for three weeks; (6) There
was the expectation that the four prototype schools would be technologically advanced.

Sprint Communications became the provider of our technology system. The state-
of-the-art system would provide a central hub from which all media was retrieved.
Teachers would access videos and laser disks from their classroom telephones, the clocks
were viewed from the classroom televisions, and fire alarm systems were centrally
controlled. The use of technology was unlimited.

This was a school for which the parents had waited seven years. It was located in
a single subdivision. It would be a neighborhood school, although the neighborhood
encompassed several square miles. How excited I was the first day I drove onto the
muddy field, which would be a school home within an area called the Southchase
subdivision. Muddy had implications for later. The school was in a very low area and
required an enormous amount of land fill in order to keep it from potential flooding. This
fact not only increased the cost of the school, but prolonged the start time significantly. I
could not conceptualize what it would be like to see this state-of-the-art, prototype
school. It was hard to imagine. In six months more than 700 little people, their families,
and school would converge. The Principal-researcher began losing sleep from this point
on, trying to think of all the variables that must be considered in the plan. It was a very unsettling time.

A portable trailer on the property that housed the construction supervisors became familiar territory. I knew that it is a man’s world in the domain of construction workers. It was imperative that the workers knew the principal of the school. In that way there were better communication, and a personal connection with all the builders involved in such an extensive project. I realized early on that everything we would accomplish, hinged on building positive relationships. On a weekly basis and with pastries in hand, I would invade the male world of construction workers to beg a crash course on *How to Read a Blueprint, 101*. The men seemed to look forward to their morning coffee break with fresh doughnuts and bagels. They seemed to enjoy talking about the project, while they were eating.

The learning curve was enormous, but before I was through I could find every outlet, plumbing fixture and A/C unit in a series of drawings. Blueprints, spread all over a large table in the hallway of the Educational Leadership Center, became a familiar gathering places as all four of us principals hovered over pages to figure out the latest questions. “Where were the cupboards? How many bathrooms were there, and where were they? Seventy-two bathrooms? The custodians will love that!” There were hundreds of questions. For every answer there were a hundred more questions.

I became so persistent about spending time during the construction phase that I was given a personalized hard hat. The construction supervisors must have felt it was easier to accommodate my determination than fight it. I wore it proudly as I walked the slowly developing structure at the work site. Concrete slabs were poured for the cafeteria. Pipes,
and electrical outlets protruded; walls appeared; months later and with more construction glitches than I wanted to hear, but fortunately revealed to me over my strategic boxes of doughnuts with the Guys, the school began to evolve.

However, back at the Educational Leadership Center, the flurry of activity that began the first day on the job never quit. Previous schools built in Orange County eight years earlier were of a modular design and did not hold up over time. No one knew what to expect of four new schools, with the same brick structure design, opening the same year, in four parts of the county, with new contractors and construction workers. An oversight company also became part of the mix. The corporate heads are referred to later.

When we asked where the guidelines were, such as lists of what to order, procedures, or people to contact, the answer was clear. “We assigned you to create a prototype school. Do it! Pretend you are building a home.” With that, the four of us returned to our adjoining cubicles and collected our thoughts. Never had I felt more overwhelmed. Where do we begin?

I’ve been through the building of my house. I’ve been through a major school renovation project. But I’ve never built a house for 800 people, with 200 more students expected at any time. Every organizational and problem solving skill I could muster from my own experiences, combined with logic and common horse sense was put to the ultimate test. I later realized this required constructivist thinking beyond my wildest imagination.

The following description of each of the personalities and tasks assigned to create four prototype schools speaks directly to what happens in a constructivist environment.
The people and their newly formed experiences could not succeed unless they utilized a constructivist approach to thinking, doing, and understanding. We had to take our previous experiences and understandings, combine them with the information given and create new conclusions through problem solving, social interactions, and the construction of new meanings.

Very quickly we put our insecurities aside and went to work. The value of diverse personalities, driven by a common mission, became obvious. Automatically, the secretaries got together and created their own accountability systems for ordering, keeping track of the budget and hiring personnel. They each took their individual strengths and collectively created and devised ways to keep track of the multitude of details. The secretary was selected because of her calm and methodical personality. She kept a running record, and a daily schedule of everything we did during the next seven months. She organized volumes of documents, and kept all records highly organized. Her Concrete Sequential personality has served us well to this day. Each of the four secretaries demonstrated high levels of competency and strengths based upon their individual personality types. They supported each other and made an impressive team.

The Technology Specialist came aboard within three months. She, too, had to create the most logical approach to develop state-of-the-art technology from her background of experiences, then adapt it to an elementary school. There were no models from which to develop a plan. She set about learning all she could, applied logic, imagined what would become possible, and set about to make it work. She had never worked in an elementary school before, but could solve problems, generalizes her past experiences, adapts to the present circumstances, and make the solutions work for an
entire school. She has the ability to see a task and create an impressive product. Her Concrete Sequential personality fit perfectly. Creating state-of-the-art technology was a complex process. Until this time, advanced technology had not been part of elementary schools. She continues to amaze me with her ability to generalize her technology skills into the world of elementary education and demonstrate constructivist thinking.

The strengths of each of the principals jumped out as we volunteered to take the lead in our own areas of interest, each person with different tasks, keeping the end in sight. Each of the four principals had four very distinct personalities. I would take on the curriculum and the media center books, determining what we needed, where we could get it, and explain why we would want it. I would meet with the curriculum people at the county level for suggestions. I also spent numerous hours with curriculum vendors. Sales people spent days with me as they tried to figure out how they could match my vision of an integrated, hands-on, interactive curriculum with traditional materials that dominated the market at that time. It was new to the vendors that schools, Southwood in particular, would purchase all instructional materials that were based upon the State Standards yet thematically developed. After hours, and sometimes days of conversation they would say, “It sure would be easier if you stuck to one book for each student in each subject.” I wouldn’t budge, they wanted the business, so they figured out ways to support the organizational and instructional belief. The vendors learning curve were extremely steep.

Ultimately, they managed to coordinate materials they never created before. A variety of literature titles were organized by thematic units in order to create a wide variety of opportunities for students and teachers to read a wide range of genre around a central theme. Literature surrounded every theme, for every grade level, on a variety of
reading levels.

The challenge of organizing such vast quantities of materials was mind boggling. As a classroom teacher for many years, I remembered the difficulty I had been getting what I needed when I needed it. I wanted to maximize every possible minute for teachers to use teaching and planning, not scrounging for materials. I had to create a system. I envisioned a plan that would organize science, social studies books, and materials in thematic units, coordinated together into plastic tubs. Math manipulatives would support a new math program designed for exploratory and investigative understanding of math. They too would also need plastic containers—enough for every child to have one set of whatever the teacher needed. Math manipulatives were organized for each teacher within individual plastic tubs: fraction parts in one tub—third grade; fraction squares in another tub—first grade; wooden geometric shapes—kindergarten. This was a perfect focus for me since I have a passion for curriculum and an Abstract Sequential personality. I kept thinking constructively.

Another principal focused on the details for writing the school handbook, following the procedural issues from the county. She reminded us that creating school songs should be part of the hiring of the music teacher and directed us to get our logos to the graphics department so that stationery could be printed immediately. She and her secretary developed a system to sort and organize resumes. The rest of us followed her lead in getting resumes reviewed, the interviewing process started, and a system for keeping track of the candidates. She exhibited the behaviors of a Concrete Sequential leader.

A third principal concentrated on the furnishings for the schools. She
investigated what we would need, how much, but most important to her–how the furnishings should look. She made us all conscious of the need to make our offices, entry ways, and foyers look professional. She saw to it that the colors were coordinated. It was her Abstract Random personality that provided the *look* that would set a positive image at the schools. Our Concrete Random colleague had the ability to look at each of the complicated issues and unfamiliar problems and pull us all together to figure out what to do. She would take the time to find other people to help us out. She would call on heads of construction, budget, purchasing, and technology to set up meetings for us and get difficult questions answered.

We spent days talking and thinking in a constructivist fashion regarding how we would guide our schools, what would we want our *perfect school* to look like, and act like. We discussed how we could best serve our communities and our students. Each in our own way would develop a vision. We knew that our schools would serve very different student populations; our socioeconomic and cultural backgrounds ranged from one end of the continuum to the other. Our school would be the middle to lower-middle in an economic class, and we would have more cultural diversity than the other three schools.

Our parents were then contacted. Letters and meetings were held in each of the communities to begin developing a mission based upon the parent’s expectations. Our collective parents all wanted basically the same things for their children. They wanted *their school* to: create high academic standards; develop a love of learning; establish a place where their children would succeed; keep their children safe; develop a desire for their children to work effectively in a culturally, and economically diverse environment;
and provide a place where the children would become good citizens.

There were many days spent planning, listening to more vendors, negotiating with the purchasing department, and pleading with budget, to convince everyone involved of the necessity for the hundreds of pieces of furniture and equipment we needed for the office, media center, the cafeteria, art, music, physical education, and classrooms. Additional time and the same processes were needed to determine color scheme, carpets, tile, cabinets, and counter tops.

Curriculum materials and supplies were a high priority. Media Center equipment and supplies, books at all levels and topics, had to be ordered. As elementary schools we were unable to hire a Media Specialist right away so it was up to the principals, a task I took, to select the first group of books that would become a starting point for our students and make up the core selection for the Media Center. I developed a new found respect for the time-consuming task for a Media Specialist. Time was a huge factor. We needed everything ready before school started.

Southwood Elementary school would be a literature-based progressive school for lack of another way to describe it at that time. Our reading, writing, math, science, and social studies would be taught using a concept-based integrated curriculum design and a constructivist philosophy. The integration of subject areas when possible, was the expectation.

I continued to state my belief, “All students should be taught as if they are gifted.” Parent meetings were held to convince the parents that a classroom-based model for serving the needs of the gifted would serve their bright children more effectively. Pull out programs, which require students to leave the classroom for one day a week to attend
their gifted class, was the existing model at all other schools. Eventually, albeit somewhat 
hesitantly, the parents agreed to let their children remain in their classrooms. Our selling 
point was that if all children are receiving the instruction that they would receive in a 
classroom for the gifted, then whether a child was labeled gifted or not, they would have 
all of the same up-leveled learning experiences. Each of our schools took a different path 
in terms of instructional philosophies. My colleagues were much more comfortable with 
a traditional approach. They wanted a book for each subject for each child.

The enormous task of hiring an entire staff of 90 people, at one time proved 
formidable. Once the requests for applicants were advertised, the resumes came flooding 
into the office. One problem, four schools were all vying for the same teachers. We 
knew our philosophy, now to find the teachers to fit it. I knew from the beginning that 
experienced teachers would come from the area around the school. But the majority of 
our teachers would be new. I was very excited about the backgrounds of the teachers, 
because they came from all over the country, mostly the east coast. However, their 
cognitive knowledge came from their university experiences, the application level for 
teaching came from their supervising teachers, and often there was a disconnect. Until 
this time I had not realized the impact that a supervising teacher has on an intern. It was 
necessary to ask first year teachers to explain both teaching philosophies, theirs and the 
experience from their student teaching. I focused on those who had the motivation and 
potential to learn. We would train them.

Because of some hiring restrictions, we were unable to fill many of our key 
positions right away, so that issue required some scrambling for key positions, as the time 
became tighter and tighter. However, the district assigned me an assistant principal who
had expertise in the exceptional education department, and an administrative intern helped out for a short time.

A key position is that of the Curriculum Resource Teacher, known as a CRT. I interviewed many candidates. None of them had the experience or philosophical understanding that I needed to help me. I was beginning to give up when I found a perfect fit. She was experienced, philosophically in tune, bright, energetic, and filled with great ideas on how to work with staff. She had experience in the position. It was she who kept saying, “a school community is about building relationships.” I had no idea at the time how true that statement was. We both had roots in the Pacific Northwest, so our training, background and educational experiences were similar. I was so grateful for her ability to jump right in.

We knew the value of hiring new teachers, but it does come with a commitment to train on the job. We believed that we could do it. This belief is not without its challenges. When brand new teachers enter the school, they come to the table with only one reading course, two at the most, with one of the courses usually Children’s Literature. A beginning teacher’s internship experience is based on whatever philosophy and strategies that the supervising teacher demonstrated. It is all the beginning teachers know. One teaching of math class, no teaching of spelling classes, hopefully, one teaching of writing class and usually the beginning teacher developed one integrated unit of study. (This is the unit that is proudly displayed in the teacher’s interview portfolio usually through photos of student doing things, but I have never heard a teacher describe any in-depth learning as part of the process).

As a result, beginning teachers need to enter a culture that is fairly autocratic.
“This is the way we do business here,” implies a different set of expectations than, “how should we do business here?” What is the difference, and why did the difference create a problem? An autocratic culture for the beginning teacher defines fairly specific boundaries regarding curriculum, instruction and assessment. Guidance must be constant and regimented because beginning teachers must develop a solid background of experiences and understanding so they can build on that knowledge. Whatever philosophy of instruction that the culture of the school defines, must be clearly articulated, demonstrated, nurtured, and supported constantly for the beginning teacher.

The hiring continued. Hundreds of resumes were sorted and identified. There were frustrations. I would find a teacher that I think would fit, receive a verbal commitment, only to have them change their mind and go with one of the other schools. Risk-taking teachers were more willing to “get excited” over the prospect of working in a literature-based school, those from a more traditional background, wanted a textbook and scripted instructions for each subject. It worked both ways, and all of us principals recognized it as a fact of life, irritating as it was. I continued the juggling act of trying to keep all the balls in the air: construction, budget, personnel, curriculum, parent and teacher communication, policies, you name it.

As each group of 10 staff members I hired, came every month to a party at my home. I did this so we could start building a family unit. I felt that each person new to the group would become more comfortable if we would meet and visit informally. The first time we got together I had a buffet lunch for 10, the next time was an ice cream social for 20. We met two more times until the numbers outgrew my house and time ran out. But this was the first message to the staff. *We are family.*
Every time I would visit the construction site I was also counting the days before the teachers came. I would ask the same question. “Will we be ready when school starts?” The answer, “We’re getting there.” I have a pet saying, “Never worry about something until you have to.” I was getting worried. School was getting closer to the date the teachers came. We could hire teachers for an additional week before the rest of the county teachers. The benchmark--how far along is the construction in each of the other schools? We all planned to occupy our schools for several weeks before the teachers came in order to get furnishings in and the teachers feeling secure in their new school.

Our school was not even close to being ready by July. The reason? The school site was on such a low level, more soil was required and it took more time to prepare the land than was expected, or necessary at the other sites. Electrical companies were going bankrupt or leaving town. A common problem because of a very low unemployment rate and low-bid subcontracting, causing serious delays. Contractors started working out of sequence. So, one group would complete their part of the job only to have the next group come, who needed access to the area that was just completed. There were more delays.

Suddenly I was hearing conversation among the upper level administrators, including our new superintendent of one month, centered around what they planned to do with us. Each of the other schools, although running a tight opening schedule would be opening before school started. I was not included in the discussions about the options. Construction was six weeks behind schedule. There were some stated options. We could start school in portable classrooms on another school’s campus until the school was ready. I could only imagine what a nightmare that would have been! Fortunately, our
newly hired superintendent said that we would be in the school even though it was behind in construction. He made it clear when he said, “Opening Southwood for the first day of school is the only option, anything else in unacceptable!”

In the meantime, our supplies, equipment, furnishings, and materials were arriving at the warehouse where they would remain until we could move them to the school. I planned to accomplish organizing, and getting settled into the school weeks before school started. However, we had no school yet, so with a lot of persuasion I was able to get permission for us to go to the warehouse and begin sorting books, organizing thematic units, and finding materials. By this time the Media Specialist joined the team. The Technology Specialist, Assistant Principal, Administrative Intern and I converged on the warehouse that stores all materials, supplies and equipment for the entire Orange County School System, all 156 schools.

We found a corner, gathered our storage boxes, set up a table and began the process of sorting, organizing and creating our thematic units. At the same time our Technology Specialist began working to show our new Media Specialist a plan for keeping track of the inventory on a data base. This was a brand-new concept to our recent graduate with a media degree. This was not going to be a sterile library with an entire book coding system based only on Dewey Decimal categories and methodically developed card catalogues. Nor was it the quiet, organized, clean and air-conditioned House of Study that was her university experience.

This was the real world of adaptation and flexibility. We were in a warehouse in Orlando, Florida, in the middle of summer, with 95% temperatures, and no air conditioning, categorizing books by themes. I stood with the county core curriculum
guides, identified potential themes, and organized the materials and books that would occupy thematic-labeled “boxes.” We were there for several days, doing what we could to get things together. The Technology Specialist was developing a data base system on the spot, using her background of experiences in a constructivist mode to create the known from the unknown. The Media Specialist was unprepared for such an experience. Chaos and creativity were not part of the curriculum. I could see she was overwhelmed, but she kept trying to understand how to adapt to this unfamiliar terrain.

Then, one day a lovely lady stopped by my cubicle and introduced herself. She was my new Assistant Principal. I was delighted. An experienced member of the Special Services Department, she was knowledgeable and organized. She would set about the task of identifying the students who would attend the school and sort out the special needs and gifted students who were arriving from other schools and rezoned to our school. She and the intern would identify class placements for the students.

Then, one week before we met with teachers, one kindergarten teacher casually announced she’d decided not to take the position. Last minute hires are always so risky. The choices were minimal. I could hire a substitute to begin the year, however, with kindergarten children that is not an option. I could increase the class sizes and spread the children out among the other teachers. No, that would mean too many children in each class. I guess that means that I have to hire someone I am very uncertain about. But, with one day left until preplanning and school two weeks away, I felt I had no choice.

Almost every time that I hire someone at the last minute or sometime during the year, there is a potential problem. Good teachers were hired quickly, but poor teachers are not. This kindergarten teacher was horrid. Yet, she was a veteran of 29 years’
experiences. After an entire year, and hours of documentation, she was hired by another school the following year. (The receiving principal, also desperate, didn’t take time to call and ask about my recommendation–She, too, began the documentation process for her dismissal. I was not surprised).

Time was growing closer and the contractors and Central Office staff became more and more frustrated over the construction delays. Once again we had to adapt. Instead of our teachers meeting at the school for the traditional preplanning days before school started, we would meet at the Central Office for our preplanning days. The Management Team and I were happy that we could meet somewhere.

Year one

We were actually quite optimistic. We thought that our time together would be much more productive away from the school since teachers would not be worrying about getting into their classrooms. We had a captive audience and provided hours of carefully and methodically planned educational experiences. We worked for days getting the preparations together for the opportunity to share the wonderful experiences they were about to receive at Southwood. We knew we would prepare them well in the next five days.

There was only one small flaw in our design. We didn’t factor in our target audience of new teachers, 35 out of 42. Most of them made multiple major changes in
their lives very quickly. Most just graduated, found a job, many of them were recently 
moved to a new town, found an apartment, their 
spouse was dealing with new job anxiety, and teachers were handling mountains of paper 
work to become qualified to teach.

The best training in the world that we provided fell on deaf ears when each of 
them was dealing at the lowest level of Mallow hierarchy. They were on survival mode. 
We then bombard them with all of our fabulous educational expertise, in areas that many 
of them had never experienced before, either in college or during their internship. We 
were talking integration of curriculum and classroom-based models for serving gifted 
students. At the same time they were thinking, “When will they turn on my telephone? 
When will we get paid? How much will my first paycheck be? They don’t start my 
insurance until when?”

The more experienced teachers knew enough about what we were talking about to 
absorb most of what were saying, but smart enough to know that school wasn’t ready yet 
and we were in a very difficult situation. They were thinking, not so much about the 
information, but about logistics. “When will I get in my room? What will my bulletin 
board look like? How many desks or tables will I have, and how will I arrange them? 
How many students will I have?” The point is, at that time I should have recognized that 
when everyone is on the lowest level on the hierarchy of needs it’s almost impossible to 
make leaps forward. We revisited each idea and best practice strategy later when 
everyone was in a more receptive frame of mind.

The moment of reckoning was near. Would we or would we not be able to start 
school on the first day? Finally, one week before school began, during preplanning, the
answer was, “Yes and No.” I could allow the teachers to come to school on Sunday, no earlier than 10:00 a.m. and stay no later than 6:00 p.m. They could bring only what they could take into their classrooms in one load, because there would be pallets of boxes being hauled around and construction crews working outside. We ordered that the teachers could bring only four things: (1) a significant other person or persons to help them, (2) an allen wrench, (3) a hammer, (4) only the number of boxes they could carry in one trip. They would be putting together their own desks, chairs and tables. All staff, except the Management Team had to leave the school by 6:00 p.m. Yes, school would start the next day, on Monday morning, and no, it would not be ready.

I tried to calm down the deer in the headlights looks of the teachers by saying, “Children will come to this beautiful new school to see their brand-new teacher. They will be so excited. What do we need more than anything? We need a teacher who will smile and make the children feel wanted. Do they really need a desk? Do they really have to have a book in their hands on the first day of school? Hopefully. But what if they don’t? We have paper. We have pencils. We have chart paper. Will they still go home the first day believing that they love their new school and that they have a teacher who loves them? Of course! You can accomplish that without a desk or a book on the first day of school.”

Teachers didn’t whine, although first year teachers maintained their frantic look when it was first mentioned. Then I knew I selected good people when I watched them begin thinking. Quickly, brainstorming happened. “Well, we can sit on the floor and figure out with the students what they want the room to look like.” “Yes!” What a wonderful way to build a constructivist environment. The students could all create their
classroom from scratch. Then it is theirs. It isn’t the teacher’s version of what they want. It is really theirs. Instead of elaborate bulletin boards that new teachers had so proudly displayed in their interview portfolios, a sign reads: “Student work will be displayed here.” How perfect this is. This wasn’t the teacher’s version of what a great bulletin board would look like with the perfectly painted commercially designed decorations, perfectly lettered and perfectly mounted. Instead, it will be real children’s authentic work, straight from their hands and displayed for all to see. Children will decide what they want on their bulletin boards. It will become theirs. This was the way to begin building a constructivist school.

As Principal, I continued to go to the construction site every day, following the progress and making hundreds of mental notes about how to orchestrate the confusion that I knew was coming. Meanwhile, the Management Team of two, the Assistant and Intern were working fast and furiously to keep things organized in spite of the situation. Letters were sent home telling parents of the starting time for school, nothing more. Maps were placed on each room’s door listing the room number and exactly how many desks, chairs, teacher’s desks, teacher’s chairs, filing cabinets, and tables should go into the room.

Beginning on the Friday before school started, the warehouse employees and I, under the watchful eye and serious command of a take charge ex-military chief, who is the director of the warehouse staff, gave me my marching orders. Arrive at 0400, floodlights will shine, put your hard hat on, wear working shoes and gloves, semi trailer will be parked, ready to unload. Coffee at 0410. Start time 0420.

From that moment, working 18 hour days, hauling and unloading pallets of
furniture first, materials later, the task of putting a school together began. The priorities were clear. Put students in desks first. Everything else will come as fast as possible. Seven hundred forty-five desks and chairs, then cafeteria tables were situated first. Filing cabinets, refrigerators and tables came next. We would leave around midnight and return again at the scheduled 0400 hours, Friday, Saturday, then Sunday. Electricians were running wires, the sod was going in, the last of the parking lot was being finished. We knew the building that housed our kindergarten and first grade classrooms would not be ready. The ceilings still needed installation. Cardboard was taken from the furnishings immediately, flattened and hauled to the dumpster. A cardboard cutter became my best friend. There was more cardboard than we had dumpsters to hold them. So, as soon as we unloaded the semi-trailers of furniture, we loaded them back up again with cardboard. I looked like *Rosie the Riveter*, from World War II fame.

On Sunday, at the magical hour of 10:00 a.m. the floodgates opened and the pace picked up to even faster as the teachers and their helpers arrived. The school looked like an unearthed giant ant hill where human scurrying was raised to new and renewed heights. Jogging became the movement of choice as materials began arriving. Vendors began hauling in supplies and materials.

We took advantage of any human who stepped on the grounds. Corporate people who were use to walking around looking ever so official, with blueprints in their hands, supervising the construction, were recruited to become part of the elementary school world. They soon learned what math manipulatives looked like. They began counting them out into respective containers for each classroom, commenting to each other as they went. “Aren’t these cute? Don’t you wish they had these when we were in school? What
do you think they call these?” I can only imagine the stories they told at corporate headquarters. That job was just the beginning for them. If they only knew what still awaited them. Maintenance volunteers arrived and began assembling kindergarten furniture, play kitchens, sand and water tables, easels, and tables. Friends, parent volunteers, husbands, anyone we could recruit, turned a potential Media Center into one large warehouse.

Teachers arrived and followed their marching orders. Everyone stayed in the classroom. There were boyfriends, girlfriends, husbands, grandparents, moms and dads, teenagers, and volunteer parents, working furiously to put as much together as possible for the teachers. Teachers quickly learned the art of manipulating an Allen wrench. The Management Team worked in every area. The office staff’s primary focus was to organize lists of children, so the parents and students would know their assigned teacher and classroom.

Phones weren’t working, so that helped. I continued to cut, haul, organize and pray. As pallets of materials were hauled into the Media Center, I would examine the contents and direct the handler to a corner of the room where the boxes were taken by a designated person that would unpack, count if necessary, and assemble when needed. I would then check off the items from the packing list, and assign each item to the designated room. The Drill Sergeant-Warehouse-Director created a monster in me, except instead of barking orders, I pointed a lot, and wrote room numbers on items whizzing by me on the way out the door.

The Superintendent came by and was generally ignored because we were all racing around. He would make sure that we would have students in the door. I noticed
several whispered sessions between the Superintendent and the leaders of the project going on in the courtyard. This led me to know that the school would open as scheduled, ready or not.

By 4:00 p.m. Sunday, Corporate staff members, business coats flung over chairs, ties unknotted and sleeves rolled up, began hauling chairs from the trailers to classrooms. Eleven hundred chairs were carried to their new homes over the heads of the Corporate men who had to *get into the trenches*.

The school was definitely not ready. The books would not be shelved in the media center for the first day. The computers would stay in the warehouse until later. Parents were told that traffic patterns would be temporary. We knew that on the first day it would be bedlam because there was no time to hold the traditional “Meet your teacher.” Some things would not become available on day one. Computers and computer tables, media center books, some office furniture, boxes of materials and supplies, would remain stored in the warehouse until later. Cooking utensils, pots, pans or cooking supplies of any kind were ordered too late to start school. They were not here.

I kept praying, “Please God, don’t let anyone find out what I have forgotten to do.” As in the movie *The Field of Dreams*, “We built it, and they came.” All 731 students and their parents in pre kindergarten through grade five arrived at the scheduled time.

Just as predicted our students and parents would never know all that went on to get to this point. Parents did not see us working 20 hours on Sunday, nor the last of the sod being laid 30 minutes before the students came Monday morning. They didn’t even acknowledge my droopy eyes from eight hours sleep in four days. It’s amazing what
layers of make-up and hair spray will camouflage. The Management Team and office staff didn’t blink. They were at school before the crack of dawn ready to go back to work.

One hint to parents that we weren’t quite ready came in the form of semi-truck trailers that were still parked at the front and sides of the building where parents and buses would eventually drop off and pick up their children. That first day we let people park any place they wanted. We had no time to develop a traffic plan. Parking became very creative.

The Assistant Principal, CRT, Guidance Counselor, Technology Specialist, and office staff joined me before the crack of dawn. We all stood at the front of the school greeting everyone answering questions and directing children and parents to the new classroom. We stood outside greeted everyone with smiles, answered questions and directed children and parents.

Imagine how a beginning teacher would feel under these unusual circumstances. They were overwhelmed. Regardless how well trained a teacher is, they would have a hard time adjusting to this situation. They had been so busy taking care of their personal and basic needs, they didn’t have time to think about such things as--school would actually start, and children would actually arrive. Suddenly I was hearing, “What do I do on the first day of school?” “I won’t have a textbook for every subject?” “What, no workbooks?” “What will I do?” I kept thinking, “Let me see, didn’t we cover all that during preplanning? Oh, You weren’t listening. Amazing!” The Curriculum Resource Teacher and I had our work cut out for us. In spite of all, the first day came.

Teachers looked professional, dressed perfectly, and acted as if this was a natural
first day of school for them. All of them deserved awards for *Best Actors Under Pressure*. They did not let anyone know that their hands were stiff from assembling furniture and their backs ached from lifting desks 12 hours earlier. In addition, they had to pull from every fabric of their creative being to figure out what to do on that first day. As expected the children left knowing they were in the best possible care, with the best teacher in the world. Parents didn’t fuss about the congested traffic. We met our goal: Each child had a classroom and a teacher. The same number of children who arrived in the morning ended up with someone at the end of the day. I knew that if stray children ended up in the wrong place, eventually, everyone would get sorted out. (Just kidding!) Of course, our greatest fear is that on the first day of school we’ll lose a child. We didn’t, what a miracle!

Our first staff meeting, at the end of the first day, was held with people sitting on the floor. They were even laughing at how they “rose to the occasion” and pulled off a great day for the children. They all had that “we made it” look. As I stood before the group, I could not have been more proud. We celebrated the day and agreed upon adjustments for the next day. Groups planned their instruction and provided quality curriculum, without a basal text. This was an opportunity to show staff what constructivist thinking looked like. The teachers agreed that everything they thought they had to get ready for the students were best when the students created their own classroom. This was a great demonstration of a child-centered constructivist environment. I wished we could keep that belief in place. We had a long journey ahead of us.

Workmen continued scrambling around us before and after school. They were
not allowed to continue with any disruptions to the school until the school let out for the
day. They would continue to work around the clock for the next several weeks. As a
result the fire alarms that would “wake the dead” with a high pitched, screeching,
pulsating, loud noise would go off continuously for weeks. There was no doubt that we
met the required number of fire drills that first year. Consistently during the first few
years, both my secretary and I were called out in the middle of the night to respond to a
false alarm. We would be wakened, usually around two or three a.m. with the infamous,
“We have an alarm going off at Southwood and we need someone to respond.” On
several occasions I stayed at the school after responding to the alarm and my day would
begin at 3:00 a.m.

Materials and supplies eventually found their way to our school and into the
classrooms. Most nights and every weekend I would work at school. I held the
wonderful books that were purchased, in order for teachers to have the rich literature that
would surround the thematic units of instruction, that teachers and I would later design. I
would methodically count and inventory the books, matching them carefully to the core
curriculum from the county and thematic units. The wonderful books and stories in
science and social studies were meticulously labeled and placed in plastic containers. I
wanted to help teachers have greater accessibility to the idea of thematic units as soon as
possible.

I loved opening boxes; box opening and feeling books became my passion. The
slick surface and beautiful pictures on children’s books are inspiring. Seven years later, I
still cannot pass a box, without seeing what is in it. When boxes arrive, I still look for
books. It’s a known fact that no box passes by the office until I open it. Then, I start
digging, followed by the usual, “Look at these books, aren’t they beautiful? Won’t the children and teachers just love them?”

Through the challenges we developed a well-oiled machine. Our Management Team comprising the secretary, guidance counselor, curriculum resource teacher, technology specialist and I managed to get things done. We accomplished what seemed at times, the impossible. No one person could possibly have done what we were able to do collectively. We drew on each other’s strengths, we saw each other through frustrations, we solved problems, thought “outside-the-box,” and created school policy based upon common sense. My 60 hour weeks would become 80-90 hour weeks in the months to follow. We only created a building. We were just beginning the real job.

As the challenge of the first weeks settled into a routine, our Curriculum Resource Teacher began gathering together additional curriculum needs for the teachers. Now our real job hit us in the face. It appeared that the amount of time and information given to the staff during those ten days of pre-planning, had evaporated. After all, we had “given them” information, they had not processed it, and they certainly could not transfer what they heard to their instruction.

Just think of the assumptions I made. (1) If, during an interview a teacher articulately expresses a philosophy that I wanted to hear, they could put that philosophy into practice. (2) When a potential teacher receives a perceived “quality education” from a progressive and reputable university, received good grades, and participated in a meaningful internship, they have the foundational skills to hit the ground running. (3) If a teacher displays enthusiasm, articulates well, projects intelligence, looks professional, and appears personable, that image will continue regardless of their developmental level.
(4) If a teacher displays confidence in approaching curriculum, instruction, and assessment in a progressive, non-traditional environment, great teaching will happen. What a myth!

Only a few of the entire staff of 52, could adapt to a different culture quickly. All too soon, the vision of problem solving, higher order, critical and constructivist thinking was fading and I saw numerous examples of teachers reverting back to a traditional instructional style. More black line copies were made. It seemed that in the hectic pace of getting settled, teachers began reverting to what and how they were the most comfortable teaching, had been taught, or would keep the students under most control. Remember, we did not have one book for each subject, complete with a detailed teacher’s manual on what to do and when to do it. Each person responded to the challenge in different ways.

For example, I had three key positions with people totally unprepared for the unusual situation that came before them. The Media Specialist was now walking around with no purpose. She did not know how to remain flexible. She was trained to organize books according to the Dewey Decimal System. Our Media Center was still the school warehouse. She spent most of this hectic time in her office arranging file folders and staring at her computer.

The Food Service Manager went into her mode of operation under pressure. We found out that the equipment she needed to cook with would not arrive for three more weeks. She started raising her voice and making decisions about how she would feed the children that made no sense. I reverted to calling the County Office and getting the Director of Food Service to come out and calm our person down, and arrive at some
logical options. Naturally, the solution was to order only finger food, and plan on sack lunches for the children whose parents could not provide lunches for the first few weeks for their children. Eventually, the equipment arrived. We assumed we could get back on the food track. However, our school Food Manager could not organize under pressure. I keep thinking, “What questions should I have asked during the interview that would provide me with better insight before I accepted the recommendation of her supervisor?”

During the year, many of us from the Management Team handed out food as the lines backed up. The Manager would bring in her disabled mother to help out. At the time it was very serious, but looking back, it was a hysterically funny sight. Although our Technology Specialist still won’t forget, her clothes covered with spaghetti sauce during more than one such occasion. I will take the liberty of inserting a story at this point to demonstrate the importance of organization, common sense, and problem solving skills needed in order to work through unusual challenges.

Our Food Service Manager was notorious for her inability to calculate the proper amount of food that would be needed. She was always running out of food, and the last teacher on the lunch schedule and her class was consistently underfed. The Manager could not figure out how to fix the problem. One day, once again running out of food, (hotdogs to be precise) one of the teachers walked by with her lunch. Realizing she miscalculated again, for the same group of students, the Food Manager ran up to the teacher, grabbed the hotdog off her plate, with her bare hands and handed it to one of the children. The teacher stood wide-eyed while the Manager said, “Well, I have to feed the children.” Naturally, the teacher was given no alternative menu and had no lunch that day. Of course, the Food Manager was dismissed as soon as it was possible, but it took
the entire year to compile enough acceptable documentation to transfer her to a less skilled position somewhere else.

Teachers met the challenge in a variety of ways. More experienced teachers were confused that our content materials and supplies didn’t give them the scripted teacher’s manuals they were so used to. Truly, during the interview process the teachers told me all the answers I would want to hear. Yes, they agreed that every child should be treated as gifted. Yes, they taught using higher order and critical thinking. They always worked with small groups of students and instructed according to each child’s needs. But when reality hit, they wanted the security of single books for each student and workbooks or worksheets to keep students working, with pencil and paper for assessments so they could work with the required small groups. In the teacher’s defense, they were extremely conscientious and were fearful that if they did not have a book in each child’s hands for each subject and a scripted teacher’s manual they would not teach something important. They too continued to operate under the old assumptions that if the information was contained between the pages of a content area book that was what the students needed and that was all they needed to learn. If they did not have a workbook or worksheet, they would not assess students correctly worse yet, they could not keep them quiet. There were no County Level curriculum guidelines detailed enough to do more than create a starting point for instruction. The more difficult parents expected instruction and homework to look like their own experiences.

The Curriculum Resource Teacher and I knew we could not lose sight of our vision, in spite of the extreme learning curve we experienced from the teachers and some parents. We felt we had no choice but to admit that we should hit every curriculum area
head on, yet that was unrealistic given the experience level of the staff. The alternative was to spread out curriculum, assessment, and instruction in each of the content areas over the next few years. Then, another reality hit. Teachers would teach the way they assess. If we were to revert to the traditional reporting system, teachers would revert to the traditional teaching procedures of instruction that were fact-based and assessed through worksheets and letter grades.

Teachers soon realized that a traditional letter grade for every subject was not realistic. They were quick to point out that when integrating the curriculum, it is very difficult to separate one subject area assessment from the other. For example, reading, writing, math, art, and social studies are combined when teaching the concept of Change when teaching about Egypt, during the study of Ancient Civilizations. How would a teacher divide the assessments? It was much more clear to the parents if we identified the skills necessary in every subject area and determine if the child reached mastery, developed the skill, or is just learning.

We knew that whatever we did, whatever traditions we wanted to establish, would set precedence. It was then that the CRT and I agreed that we could not use a traditional letter grade report card. We were willing to go way out on a limb. The County does not require the same report card for every school. However, the accountability must be there. The CRT did a very courageous thing. About the first month into the new year, she developed a committee and created the unimaginable. She was able to develop a nongraded report card that through her ability to convince the community of the merits of eliminating letter grades, met the approval of the staff and parents. We agreed that if it was ever going to happen, it would have to be right away, or we would be backtracking
with our parents for years. The report cards were ready for the first marking period.

I had seen the public relations disaster created for some of my colleagues when they tried a non-graded reporting system, but they had a long history within the school, we did not. Once in place our new report card would become standard for the parents. The teachers agreed, received training on parent conferences, and the first report card was given to parents during the first marking period. This amazing fete was accomplished in eight weeks.

There were several advantages of our marking system. Each grade level receives its own report card. In that way the skills, concepts, and topics that teachers instruct, are broken down so that parents see the progress their children are making in specific tasks or concepts. They know their children are either progressing or mastered the skill or concept, in each area of study. An additional area, and I believe most powerful section, refers to a listing of the Characteristics of a Successful Learner. Each parent and child knows exactly the characteristic that either is a strength (mastery) or needs improving. The statement of expectation explains the underlying reason the child is successful as a learner, or it is an area that gets in the way of the student’s progress. It is that part of the reporting system that most clearly identifies specific areas relating to how a child functions within the academic environment. The system is much more specific and detailed.

*Marking System:*

+ = Mastery: Applies knowledge/skill in different ways. Transfers and extends knowledge.
Check + = Achieving: Has made significant progress toward mastery. Attempts to transfer and extend knowledge.

Check = Developing: Has made some progress toward mastery. Applies knowledge/skill in a limited way.

Minus - = Needs improvement: Seldom applies knowledge/skills. Seldom works independently and requires additional support.

Characteristics of a Successful Learner:

Hardworking = A hard worker, sticks with a job until it’s done.

Organized = Can plan and manage time and resources to accomplish tasks.

Cooperative = Able to work successfully with others.

Resourceful = Can sort out problems alone; works independently.

Thinks Critically = Uses logical judgment, makes thoughtful decisions, solves problems.

Empathetic = Aware of and concerned about the feeling of others; gets along with and supports other children.

Creative = Thinks of unique ways to express ideas.

Responsible = Follows established expectations.

Listening/Speaking = is attentive and receptive to directions and discussions; talks to promote a successful learning environment.

Assignments = complete work and turns it in on time.

Quality = Produces personal best work.

Every other area on the report card is identified by benchmark requirements and
marked according to the system noted above. Parents know more than they would if the child received a “C” in math. What would that mean? The teachers were amazing. During our first parent conference they explained the rationale, described the components of the reporting system, placed it in the context of each child, and most parents accepted and understood the purpose.

I believe that another reason for the success of the non-graded reporting, using marks, not grades, and a comprehensive list of skills and performance objectives that teachers marked, is based also on the culture of our community. Heavily Hispanic, the parents as a whole, are not as concerned about letter grades as some other cultures. Over time, and with the support of parents and teachers, we have maintained that system of reporting. We refined the reports for each grade level every year. The reporting system set the tone. Teachers realized that the philosophy of the school was not a traditional one. Our students would learn to think and understand, not just do and tell.

We did several other things that considering we were in the first year, demonstrate the acceptance of risk-taking as a standard operating procedure at Southwood Elementary School. We determined that students would develop internal motivation. We spent several sessions with the teachers discussing the need to do away with the many traditional reward systems that have emerged over the years. We did not want this school to be bumper-sticker driven so that parents could publicly proclaim, “My child is better than your child.” Discipline, in most other schools, was based on systems that reward the best behaved students and publicly announce those who weren’t. In a traditional setting one would see a student’s names on the board, a sure sign the name was up there because they broke some rule such as apples, clearly identified with each child’s name, falling
from trees, proclaiming some young person just “fell from grace.” (Upon inquiring about her day, I once heard a child say, “It wasn’t a good day, Mom. My apple fell from the tree.” (I wasn’t going to live with that memory at Southwood).

Instead, we established a system of rewards based upon each child determining an achievable goal. The goal is written, usually displayed as a reminder for the child, that identifies the plan to improve in some area of study. One teacher for example, has each student’s quarterly goal placed on the child’s self portrait, and displayed on a wall. We would see such things as “My Goal: Read two chapter books a month,” “Learn my six times tables,” “Stop talking when the teacher asks me to stop.” Each quarter the CRT and I go to each classroom and present a certificate to each child who achieves their goal and receives a Notable Achievement Award. Goal setting is part of learning for the real world that we believe should be developed at the youngest age possible.

We also developed a classroom-based model for serving our gifted students. In addition, the art, music, and physical education department created a Renaissance Program for talented students. The children, identified by the teachers as talented, received special training in either keyboard, chorus, art, or physical education. Programs developed by the team of highly talented teachers were presented twice a year to the parents. Further demonstrating our commitment to the performing arts, we developed the largest elementary stringed instrument program in the county, and also provided an additional music experience with the electronic keyboard laboratory.

It seemed as if we had barely opened the doors when we knew that the expectation of our County was clear. Present a Dedication Ceremony. We had to drop everything for the few weeks to create a ceremony that we could be proud of. We
agreed that we would use our students as the focal point of our dedication. Teachers in the art, music and physical education, and a second-language department, were willing to take on the task of orchestrating this event. Behind the scenes there had been a flurry of activity. The p.e. teacher (now our Assistant Principal) was instrumental in organizing others. What appeared as smooth sailing, by those of us on the Management Team, on the surface resembled the paddling duck, calm on the surface but paddling like crazy underneath. Four a.m. became the starting time for some of us that morning. By 6:00 a.m. parents were at school getting a balloon arch ready.

All of the heads of the construction project, all school board members, dignitaries from the community, Sprint executives, and heads of departments from the County Level were present. We featured our beautiful children. Our cultural diversity was celebrated by showcasing many of our children, in their native dress, speaking the language of their country, welcoming everyone. A fourth grade student, with a magnificent voice, sang the National Anthem, the color guard from the ROTC program at the adjoining high school helped us celebrate. The Superintendent spoke, the County Commissioner provided us with a proclamation. The celebration went off without a hitch, thanks to the incredible work of everyone. At the end of the ceremony the adults were exhausted, but we smiled as we visited with the dignitaries that stayed to mingle at a reception in the media center. Through bloodshot eyes we were so proud. It seemed like this was the first time that we felt like, “We made it!” Now we could really get into the business of helping teachers and students.

Our Technology Specialist developed a Web site that was unique to the county and to the parents. The monthly newsletter designed by our Specialist was the beginning
of our communication system to parents. Our families loved to brag that we were selected by Sprint as one of eleven schools in the nation that became a Technology Showcase School. The teachers would demonstrate ways they could access technology even though in our first year, everything was not up and running. However, the experiences we were all having with technology were still several years ahead of other elementary schools. We still had a long way to go.

On the instructional level we had our work cut out for us. First, we needed to begin impressing upon the teachers our need to understand the difference between the child of the emerging new millennium, who is of a different time, and their own background of experiences. Both bring to the learning environment their beliefs, values, cultures, past experiences, understanding, motivation, parental influence, and family experiences. Children add on their experiences with the internet, and technology, including the influence of television. We are preparing students for jobs that do not exist. We are no longer in an agricultural or industrial age when schools prepared students for a very different future. This is the information age. We must prepare our students to work with, understand, and process information. Intellectually, we all accepted this premise.

As I look back to this time, I realize that this was the beginning of creating a constructivist environment. Translating that into the real world of a new school and new teachers became another issue.

Not only did we have to do some major interventions regarding instruction and assessment with the staff, but we had some serious public relations issues to hit head on with a small group of vocal parents. The “honeymoon period” with our parents was quickly coming to an end. Teachers were having a hard time responding to the questions
parents asked. “Why isn’t there homework every night? Why don’t I see a math book coming home? Where are their science or social studies books? Where are the worksheets that are assessed, so that I know what my child is learning at school? I need spelling lists.”

To help teachers respond to parents we held several meetings to discuss effective communication methods, including bimonthly newsletters sent by each teacher to each family in their classroom. The Communication would include _what the children learned and what they would learn next_. For those anxious parents who were not seeing “enough homework” we encouraged parents to engage their children in activities that fit into the existing family activities that could focus on building background experiences for upcoming content. Teachers also suggested ideas to help parents assist their child with skill building. Newsletters are kept on file for me to review. I used this as a way to keep up with all the activities in the classroom.

The most challenging of the curricular areas to explain to parents, and for teachers to teach, was in the area of math. Traditional math is very clear. Memorize math facts, do lots of algorithms on a worksheet, receive a mark on the paper for every error (made with a hemorrhaging red pen), and receive a large letter grade at the top (also in red). Do more algorithms on worksheets for homework, and the cycle continues. Parents are comfortable with that because they learned that way. We know there is no understanding connected with memorizing and doing. We needed to provide parents a way to learn more about what we were doing in math instruction, why we were doing it, and what it looks like in the classroom.

Our curriculum in math was newly published by the Association for the Teachers
of Mathematics. A highly innovative program at the time, *Investigations* (TERC), is an interactive, hands-on program. Students do not have individual books, and do not have workbooks. Teachers have several volumes on individual topics from which to draw their lessons. It is a spiraling curriculum that allows students to build each year on previously understood mathematical concepts. Dewey and Piaget would love it. The first year of the program is so different for the teachers to teach, and they often became frustrated. Generally, the teachers who had the most difficulty were the ones who didn’t understand mathematical concepts either. It was very hard for them to even understand what the teacher’s manual was trying to convey. This was not a surprise. The manual was written by teachers who understood math. They assumed that every other teacher would too. Teachers did not automatically “get it.” Suddenly, teachers had to understand what they were doing.

Our veteran teachers believed however, that something was missing in the math curriculum. They worried that standardized testing and students going on into Middle School would be expected to know how to do algorithms in the traditional sense. Our students needed to memorize math facts. They needed worksheets to learn traditional methods of calculation. We agreed that students needed exposure to some types of traditional math instruction. Worksheets were used sparingly and when appropriate to the concept being taught. However, abstract methods of writing math algorithms must be matched with the understanding piece. Students move from the concrete to the abstract, just as Piaget recommended. Overall, the math process is highly constructivist and sets the example for what constructivist learning looks like; highly exploratory, rich in problem solving, and built on students’ verbal and written descriptions of their
understanding. Students learn to think mathematically.

It was a difficult decision to decide on which content area to focus with our parents. Unfortunately, we had to wait to explain in detail to all of our parents about our philosophy of math. The teachers did the best they could, but they had a hard time explaining something they didn’t really understand either. Honestly, we limped along in math the first year. Teachers were great with each other. As one teacher would finally understand and have success with a lesson she would help another teacher with the same lesson. The first year, a lot of traditional math was taught as teachers simply didn’t know what else to do. It is extremely difficult for teachers to learn a new curriculum, especially when it is so foreign to the way they learned. Reading a teacher’s manual is one thing, understanding how to teach lessons to students, and get the idea across, is very labor intensive work. They all tried very hard to make it work.

A teacher’s first year with a non-traditional way of teaching math is an excellent example of how learning something and doing something, such as learning math, does not develop an understanding of math. On the entire staff we had three people who had worked with hands-on math before. They willingly shared what they knew with their colleagues. Slowly, the process of math understanding began to take hold.

We had to make the decision to focus on the most important thing children must learn and understand. We began intensive work on the teaching of reading. We had to begin at the beginning. Building a strong philosophical base became critical. Gathering teachers together we determined what a sound research-based reading program would look like. It was critical that we agreed on exactly what we should expect of our students at the end of the school year. In this way we didn’t have teachers complaining that the
previous teacher “did not teach these kids anything about how to read.” A practical and sound reference was needed for teachers to determine specific reading strategies, organization, and assessment. The next step would include time to discuss what good reading instruction involved.

After working with the teachers regarding the use of *Guided Reading* we realized that we were going to need to expand, and in some cases create, more extensive classroom libraries. Children and teachers needed more books available within the classroom since we were expecting small group instruction, based upon individual student needs. (A single basal anthology would never do the job).

Now, we had to get creative in the use of money. We did not have enough money in the budget to provide the number of books we felt could adequately stock each classroom. I am grateful for my Scottish background and the ability to stretch the dollar. Our school secretary is masterful at thinking of ways to make my brainstorms work.

I took over the tasks normally assigned to the Media Specialist for the purpose of ordering more literature. Our current Media Specialist was so overwhelmed with the enormity of her task, and her inability to solve problems in a non-traditional situation, she became more reclusive. Mr. Dewey Decimal System could not dominate her life at this time. In a Gregore Style she was an extreme concrete sequential personality. She quit after less than one semester. After that time, our Media Clerk would run the Media Center.

We still needed more literature and we found a funding source. Individuals and schools can purchase paperback and hardback books from a publishing company warehouse depository in the city. They have a summer sale. Armed with a purchase
order, generated from very creative bargaining with the company, and bits and pieces of money that we could paste together from our budget, I embarked on another adventure. I entered the domain of the book warehouse. I must explain that going into a book warehouse, in the dead of summer, in Central Florida, with the temperature of around 95 degrees, with no air conditioning, made me feel as if I was in the book jungle of the rain forest. Bottled water became my best friend.

I enjoyed the opportunity to look and examine books: narrative; picture; and expository. I was taken into another world where authors expand their imaginations and bring to life the world around us, while exposing us to worlds we will never know. Hour after hour I became enthralled with the titles, covers, and content of books, books, and more books. It was hard to choose. My calculator worked overtime as I stretched each dollar and thought through every grade level and content area to make sure that each piece of literature had a purpose and each teacher would have more classroom library experiences for the students. Ten hours later I hauled the final pallet of books to the desk of the warehouse bookkeeper who had that, “you’ve got to be kidding” look. She quickly shouted for help and eventually processed each title. I stayed within budget, purchased hundreds of books, while looking like a drowned rat. I was so proud of my accomplishment. But, it was short lived. We added to the classroom libraries for leisure and independent reading. But, what about guided reading that would support each child’s reading level?

True, we were able to find a basic assortment books that could accommodate various reading levels, but what was the teacher to use for guidance when they met with small guided reading groups? We did not have teachers’ guides for the teachers for each
book they were using. After all, the basal that teachers were trained to use, contained the scripted text that provided every word they were to say to the students, generally in large groups. We did not believe that one size fits all. We certainly did not believe that traditional basal text manuals provided enough high level thinking experiences.

In the primary grades, quantities of rich literature provide teachers with the vehicle by which to instruct students in the complex tasks of beginning to understand how reading works. Once a student reaches a third grade reading level and moves into chapter books the challenge for the teacher is equally complex. They must know the content of each of the books that they use to instruct the students, or so they thought. We made an assumption that teachers knew how to develop appropriate questions, assess the child’s needs, and provide skill building lessons. We found that was not necessarily the case. This was a problem that we must fix.

Then, out of the blue, the budget department announced that we did not have the 790 students required to justify an Assistant Principal, we only had 730. My wonderful assistant was reassigned. Within six weeks after school began I was left with a Management Team of one other person, the Curriculum Resource Teacher. Between the two of us and my secretary we would have to fill in the gap. We had to prioritize our tasks quickly. We still needed to move as efficiently as possible to get teachers on the same chapter of the book. The same page would come later.

I couldn’t slow down. It was a hiccup I had to get over. We had to move on. The CRT was a real task master. She knew we had to proceed with the task of teacher training, and we could not wait, just because there were few of us to get the job done.

Teachers generally do not have the opportunity to meet as a full team for an entire
day to discuss concerns and issues. It is important that we provide that time for teachers. We cannot expect teachers who are tired from the end of a hard day with the children to be at their top thinking form at the end of a school day. We listened to teachers’ concerns to determine specific areas in which to concentrate, in the area of reading.

The Curriculum Resource Teacher and I planned a full day for a grade level that would start the dialogue, discussion, interaction, and opportunities to work as a team. We gathered resources that we knew would be a launching place for problem solving. Teachers received their books and reading assignments ahead of time. The agenda would include reviewing the various approaches used in the teaching of reading that were topic specific. In the first two years, the majority of our teachers did not teach reading in small groups to the extent that I hoped. Most of them were trained to teach with whole group instruction. (Most of the young teachers came from internships with teachers who were trained in the Whole Language approach, where large group instruction and a holistic approach to the teaching of reading dominated their instruction). Changing that behavior was going to be a challenge.

School Improvement money, allocated by the state, provided the funds so that we could provide substitute teachers for a full day, and release teachers a grade level at a time, to meet. We arranged for each team to meet for one day at a time with the CRT and me.

*Guided Reading* by Pinell and Fontas provided the foundational information for the teachers in grades K-3. Nancy Atwell’s book, *In the Middle*, provided the foundational information for the teachers in grades 4-5. The first pull out day would address the information found in *Guided Reading*. The Curriculum Resource Teacher
spent hours of time meticulously reviewing the book, reviewing her own experiences in several countries, teaching reading. The teachers were assigned specific portions of the text so that the discussion would be productive in the time we had together.

Imagine our disappointment when only a few of the teachers actually read the text before they came to the pull out day. This further entrenched our belief that teachers will not internalize new strategies for teaching unless they are guided by a knowledgeable coach. Our Curriculum Resource Teacher engaged the team members in significant discussions, using practical guides as a point of reference. The teachers began to understand the rationale for teaching reading according to small groups who read at a similar level. We discussed ways they would provide meaningful learning experiences for those students who would work independently or in cooperative groups, while they worked with small groups in a guided reading area.

I was always present at each of the pull out days. Although I add comments, I generally co-facilitate with the Curriculum Resource Teacher. I am continuously grateful for my 16 years experience as a classroom, and exceptional education teacher, in pre kindergarten levels through grade eight. That combined with a lifetime of studying about how children learn, and additional years working with teachers in curriculum design, has served me well.

Given the lack of experience on the part of the teachers, as indicated earlier, we decided that we could not instruct teachers in the teaching of reading using a Democratic Process. We needed to begin the training with the fundamentals. It was clear during the interview process that each teacher knew the technical aspects of the teaching of reading. But, when placed in the environment they now found themselves, it became obvious they
had not internalized what they thought they learned. Or, in the case of more experienced teachers, a non-basal approach was unfamiliar ground. Teachers, just like their students, did not have the metacognitive piece in place. They didn’t know what they didn’t know, and therefore, did not automatically know how to fix it.

We began in the area that appeared to give beginning teachers the most trouble, time management. This area continues to create a serious concern for teachers. It is especially difficult for beginning teachers who also struggle with classroom management. The inability to effectively manage time affects the consistent need to individually assess student progress. The question was asked, “When and how can I assess individual students? What are the others doing while I’m working with one child? I don’t have the time. I only know how to give pencil and paper tests to the whole group, grade them, and hand them back. Continuous one to one assessment is way out of my comfort level.”

Further discussion included management strategies. We recognized that in kindergarten and first grade, when the children are less independent, we would have to provide additional help in the form of paraprofessionals and parents while a teacher assessed each child for basic skill development. In the other grade levels the teachers could assess one child, at the conclusion of a guided reading session. That is, when a guided reading session is over, the teacher holds one child from the group and completes a running record on that child. By completing one student assessment from each group, the guided reading assessment for all students, could be finished in about seven days.

This strategy makes perfect sense and works well for the highly organized and methodical teacher, who has excellent classroom management tools. Unfortunately, not all teacher’s style lends itself to strong organization and management skills. So in truth,
the majority of teachers did not assess one student at the end of each reading group, regardless of how efficient the process sounded. The reality was that teachers usually scrambled to complete quarterly assessments.

The opportunity for teachers to discuss their problems and concerns becomes a vital part of spending time together. The problem solving portion of the day provides teachers with the nuts and bolts ways to implement the constructivist philosophy. They created ideas on effective use of other student’s time during the brief one to one session a teacher has with a child.

Each time we bring a grade level of teachers together to discuss and problem solve a better way to teach children, the teachers leave with substantive tools to use. They left the day with a specific plan on how to manage their time, the assessments to use, and under what conditions. The key however, is in the time that the Principal, Curriculum Resource Teacher, or any other support person to the teacher, revisits the strategy, and provides further feedback to the teacher, until that strategy becomes a familiar part of the teacher’s repertoire of instructional tools.

Quality time with a team would focus on a specific grade level issue. However, the principal, curriculum resource teacher, or other teachers often identify needs that generalize to the entire staff. Twice a month, entire staff meetings focus on whole school issues for in-service training. In this way we can bring teachers together and discuss best practices and their implementation. The consistency of strategies and reinforcement of beliefs remain a crucial part for the students and teachers to ensure that a school stays on track. When there is a spiraling curriculum, consistency of beliefs and instructional strategies becomes critical for students in order to make continuous connections between
what they learned and what they are learning.

An additional key to the success of the school--we took advantage of the skills the staff brings. Our Curriculum Resource Teacher drew from her vast experiences teaching in the United States and in several foreign countries and provided the staff with the best practices from several countries. She presented literacy strategies from England and New Zealand. Student books were created and bound with handmade book covers that teachers learned to create in an after school workshop. She demonstrated writing across the curriculum as teachers learned how to help students explain their thinking through personal journaling, explanations about math understanding, and writing both expository and narrative stories.

Handwriting was addressed at yet another in-service meeting. This too had its emphasis from the beginning. Unlike the traditional ball and stick method of printing and a typical manuscript writing style, we used the D’Nealian method. We wanted to go to the often utilized method in the schools of the Northwest. A highly effective method of printing called Italic handwriting. Well researched, Italic was found to be the easier method to transition into writing, however, we felt that moving into such a different method was pushing the envelope a little too much, and the compromise was D’Nealian.

Over the last few years, the emphasis on handwriting had faded. I doubt that there is even a reference to the teaching of handwriting in any university teacher training. Therefore, teachers rarely instruct students in correct letter formations. The result, students’ handwriting was often barely legible. However, by shifting the emphasis to a new handwriting style, teachers became more conscientious about teaching it. They learned to write in D’Nealian, and expected correct letter formations from the children.
Effective spelling instruction, another area that consistently baffles teachers, was based upon the work of Marlene and Robert McCracken. This method was used effectively in England, Canada, and New Zealand. We wanted teachers to break out of the traditional word list method from the “old school.” We knew from research that the most effective method of instructing students in learning how to spell words correctly is taken from students’ authentic writing. This meant that each child would need an individualized set of words taken from those consistently missed in the child’s writing.

Individualizing anything requires an enormous amount of organization on the part of the teacher, even though there are several strategies that do not put the total responsibility on the teacher. Once again, well organized, methodical, risk-taking teachers tried this system, but the majority of teachers just couldn’t make it work. It was unmanageable. Most of the teachers developed a compromising system that combined both traditional and commonly missed words in combination with thematic words to form a spelling list. An additional issue regarding spelling surfaced with the insistence of a few vocal parents that their children bring home spelling words so they could help them at home.

I believe that we were doing so many things that were unusual for the parents that they needed the security that their children were learning something tangible and comfortable for them. If they could see word lists for spelling and algorithms to learn in math their comfort level rose. The instruction of formal spelling remained a challenge for the next three years. During the fourth year, a different system was introduced that has merit and will be discussed later.

Science and Social Studies were also challenges for the teachers, for several
reasons. I did not purchase a specific basal textbook in either of those subjects. As indicated earlier, I worked continuously building literature sets that matched thematic units. I was determined that teachers would learn the value and strategies for thematic, integrated teaching. More important, teachers would receive training in the use of a concept-based integrated curriculum. I was convinced that if I provided a single book from which to teach the content areas, I would undermine the integrity of the thematic integrated concept. Plastic containers, infamously known as “The Tubs,” were designed to provide teachers what they needed for instruction and activities. The intent was that when the fourth grade studied the Revolutionary War for example, all the teachers had to do was go to the plastic tub labeled Concept: Conflict--Revolutionary War--there would be reference books, topic area books, literature books on several levels on the topic, posters, and anything else I could find that would enrich the investigation into the content.

However, the major flaw in that theory was that I assumed teachers would have the natural inclination about how to go about teaching thematically. After all, they had all shown me an example of a thematic unit that they had completed during their internships.

The problem was, we were light years apart on what teaching thematically meant. I was shown topics, which lend themselves to very low level questioning and activities, not concepts, during teacher interviews. The CRT and I knew we had more work to do. The process of creating units of study that took students beyond the facts and into higher levels of thinking must be accomplished through concept-based thematic instruction. The method of creating such units of study was extremely time consuming. Whole school
districts devote money and staff to create such units of study. Our district was not there yet. I knew we would have to do it by ourselves. I used H. Lynn Erickson’s curriculum design that is written in her book, *Stirring the Head, Heart, and Soul, Redefining Curriculum and Instruction, Second Edition*, for the concept-based interdisciplinary structure. I continue to use her design to this day.

In the meantime the poor teachers were ready to tear their hair out. Many of the books that I thought were perfect did not accommodate the multiple reading levels that existed within each grade. Adequate thematic texts, written for low performing readers, were not available in the content areas at that time. All that the lower readers had were elaborate reference books that they could look at, rich in illustrations, but too advanced in text. More work was needed. Those students who read on grade level and the advanced readers managed well. I would have to find ways and means for teams to receive more diverse literature to accommodate the various reading levels. In addition, teachers needed more tools so they could learn to teach and think at higher levels.

In 1997, publishing companies had not adapted to the need for developing multiple reading levels for a single theme. We created this concept with individual distributors, one book at a time. Publishing companies responded to the ever increasing demand for this market and the literature is much easier to find six years later.

Materials and supplies continued arriving throughout the year. More holes were filled in the curriculum. Teachers would recognize that they were getting everything they needed to move the children forward. We eventually were able to set up our computers and computer stations. TV sets were mounted in each teacher’s classroom. The technology piece began falling into place as teachers gradually learned how to access
internet information and some software. This was a slow process.

We recognized an additional commitment. We would serve gifted students within the classroom setting, even though all the rest of the schools in the county had pull out programs. That meant that students in each of the other elementary schools who were identified as gifted left their classroom for one full day, while attending a class specifically for gifted students. Some were served within their home school building. Others were bussed to adjoining schools.

In order to fulfill the obligation to develop a classroom based model for the gifted students, teachers serving the identified “gifted” students needed to become certified as gifted teachers, or at the least were in the process of receiving their certification. We were fortunate that the County Level Coordinator for gifted programs agreed with our requested model, since this model is most preferred in other states. She was willing to come to the school where we could receive the classes needed. As Principal I felt it important for me to join the teachers over the next six semesters. Even though it was a big commitment, and added one more thing to my plate, it was worth the effort. The after-school and Saturdays that we spent in class provided 13 of us the opportunity to get to know each other better. There was a great deal of comradery that existed during that time. The classes also provided us with the opportunity to talk, discuss, and evaluate higher levels of instruction for all our students.

I also wanted to promote the fine arts. An Electronic Keyboard Lab for a piano experience for the students was created and developed by a magnificent music teacher, who provided a wonderful image for the school. Her concerts were amazing, considering that she had the students only one year. One of her earlier tasks, write a school song.
Long before we recognized that we were moving toward constructivism, the theme: Young Architects: Building for the Future, set the tone for the school. It remains today. The words of the song spoke to the vision and helped provide the message to the children and parents. It wasn’t until much later that I realized how apropos the words became in our quest for constructivist learning and thinking.

YOUNG ARCHITECTS FOR TOMORROW

I can see the future and all I’d like to be.

I can reach for the gold, there is purpose inside of me.

I know that I can focus, make decisions and problem solve.

I am in the right place: Southwood is the best school of all!

Chorus:

We are young architects for tomorrow,
Building for the future piece by piece.

We are young architects for tomorrow,
Building for the future piece by piece.

I can envision a perfect place,

Where “real world” events I will be able to face.

Teach me strategies and help me grow.

Give me foundational skills:

All of these things I must know.

Chorus in Spanish:

Somos los arquitectos del manana
Armando el futuro un paso a la vez
Somos los arquitectos del manana
Arrmano el futuro un paso a la vez

Raise the bar for me!
I’ll strive to reach it.
Give me the tools and I’ll Fly!

Chorus in English

We also knew the importance of getting parents involved and understanding what we were accomplishing. We chose to showcase students and their writing. At this time, in 1997, there was not the dramatic emphasis on student writing that later developed with the advent of the “Florida Writes” assessment in 1999. Our Curriculum Resource Teacher organized an event involving a year-long writing project that culminated in a Young Author’s Conference. At that time parents were invited to attend. We hired a guest story teller. Students published their work in a form that they shared with others in a series of three coordinated sessions: Inspirational, Sharing, and Special. This was the biggest curriculum related event of the year. It emphasized the importance of writing and became the foundational skills for students who later put their talents to work when the Florida Writes exams emerged. It accomplished what it set out to achieve–creating a love of writing and providing an opportunity to share their enjoyment with each other as well as their parents.

Our Technology Specialist created a data base that was teacher friendly, and
provided a vehicle for teachers to enter each child’s performance level in reading, writing, math, and spelling. In this way, the Curriculum Resource Teacher and I could look at student progress, without always asking the teacher. Were it not for the requirement to enter the scores into the data base, I’m not sure that the assessments would have been done as expected. This pointed out the need to continuously create a monitoring process of some kind. I needed to know how each of our students were progressing so I could ensure appropriate support for the teacher.

The first year ended with a mixed feeling of relief and joy. The good news: We could see how our vision would work and reach fruition. We knew we had a long way to go. We knew the journey was just beginning. But, we could see the trip would be an adventure we looked forward to. That is, most of us felt this way.

Several teachers felt that the journey was too long, the road too rocky, and the trip too uncertain. Many liked the old road they traveled before, with the same map they used many times, with roads that are never under construction, and a predictable destination. They got off the Southwood path and went where the journey was more predictable. The rest of us stayed to take Scott Peck’s, “The Road Less Traveled.” The risk-taking adventure on unfamiliar terrain would not be for the weak of heart. Those that stayed with us were committed, risk-taking, and dedicated teachers. It did mean that we would be starting over with one-half of our teachers for the next year. This made the creation of more comprehensive integrated units of study, and clearly understood curriculum, instruction, and assessment, even more critical.

The first summer, each team of teachers spent one week creating integrated units of study. The process was much slower than I anticipated. Since I worked with the same
philosophy during the previous 10 years, and two other schools, I knew what needed to be done. So, the first day of the Writing Team, I taught teachers what a concept-based integrated study looked like, and how to write the teacher guides for those units. I used the work of Dr. Lynn Erickson, and Dr. Arthur Shapiro for the design work.

Each summer for the next four years, similar teams would bring their expertise and experience together to further refine the integration of each unit. Each summer the work became better and better. The ownership was there, and we kept refining the higher level questions, the multileveled resources, and the integration to include teachers of art, music, and physical education.

We ironed out many of our kinks and were ready to move into year two with determination to continue reaching for our goal: teaching students and teachers how to think. I knew how often teachers reverted to traditional teaching: more whole group instruction and teacher talk than I wished; more worksheets than I hoped; activities and projects that did not appear to have a solid purpose. I accepted the need for teachers to work at their comfort level on a continuum.

What I Learned:

Creating a Constructivist School

The philosophy that we would “treat each child as if they were gifted” set the tone for curriculum and instruction. It was clear that we would not become a traditional school with basic texts for each student, use pencil and paper tests as a primary assessment tool, and assume that “one size fits all” for instruction. Individualized instruction will occur. Curriculum would be integrated as much as possible. Math would
be focused on understanding. Higher order thinking, problem solving, and working in cooperative groups will dominate instructional strategies. That was the theory. It was foundational for teaching children to learn and think from a constructivist position, that at this time was assumed, not stated.

I did not realize that in year one I was creating a Constructivist School. I knew I wanted all the components that identify a constructivist school, by reinforcing the concept every chance I could. I laid foundational statements such as, “Building on prior knowledge, asking the difficult questions of the teachers,” and they in turn the students, “How do you know that? What is the point, and why should I care? Explain your reasoning? What is your proof? What else should you find out? Why?”

**Change**

Change comes slowly. Conceptually, teachers stated that they knew and appeared to agree with the intent and focus of the philosophy. In practice, implementation became a different issue. When the tasks of instruction became too foreign to teachers’ backgrounds of previous experiences, they reverted back to their old, or former methods. Metaphorically, they were trying to pound their old round peg into the square hole of Southwood; a one size fits all into an individualized process of student learning. The first year it became obvious which teachers began to make the transfer of learning to this new culture, and those who could not. We still found those who could adapt and change and those who could not.

**Leadership**

My leadership skills were put to the test because I heard teachers complain about
how difficult it was to have to create instruction based upon the needs of the students. I knew that teachers were conscientious and wanted to do their best work, but they wanted me to support their need to revert to old ways because it would be easier for instruction and assessment.

If I hadn’t been so convinced that what we were doing were the best and the most effective way to teach, it would have been easy to back down. I just couldn’t do that. The Curriculum Resource Teacher and I held our ground. I needed to surround myself with a Management Team that shared my vision, because they would support the vision. I needed to ensure that we were on the same page with each other.

We knew that an autocratic approach is necessary for the short term, just to get the bus out of the ditch. The crunch of time in opening a new school, especially under such difficult circumstances, did not give us the luxury of establishing a highly Democratic environment. There would be time for that later. Teachers also told me that at that time they didn’t want to make any management decisions. They were too busy thinking about their lessons, and they did not want to be bothered with anything else. The research on leadership identifies the need to bring aboard all of the stakeholders to make decisions. It wasn’t possible at that moment in time.

As we neared the end of the year it was time to start letting teachers become part of the decision making process as individual issues surfaced that required their ideas. The timing and players are critical to the success of the process. When to bring people into the decision making process and how soon they desire to become involved is not a recipe. It must happen as soon as possible, without pushing people beyond their level of endurance and understanding. It is a very fine line to walk. I must stay continuously
involved with the teachers and remain sensitive to each one’s position on the tight rope

I knew the importance of training and working with the summer writing team. I had to become part of the process with them. As I talked, questioned, discussed, and prodded the teachers, they began to think about what we wanted the students to know, and be able to do. However, they had to understand the broader context. I asked the hard questions such as,” Why should a student care? Why should the child know this? How do we know they should know this? What purpose will this activity serve? Is the project just an ‘I did it,’ or was the project a way for a student to draw conclusions, ask themselves the hard questions, develop a deeper understanding? Was the project done under your watchful guidance or was it a take home project that provides the parent an opportunity to demonstrate what they know?”

These questions developed into in-depth discussions about the purpose of the content and the value the teacher placed on the child’s understanding.

During the first summer that I trained writing teams in curriculum design, we worked through each of the specific steps in the Concept-based Integrated Curriculum Model design. We refined the concept based thematic units. We developed higher order questions to help the teacher, refined the culminating activity to ensure that it demonstrated significant learning, created assessments for the skills and concepts and developed rubrics for the assessments for the projects and writing component.

The more I worked with the teachers during the summer the more I realized that I needed to stay with them continuously throughout the writing process, primarily to keep them on a task. If I left the teachers writing and thinking on their own for more than an hour, when I came back they would be off topic and visiting. The task of writing
curriculum is tedious.

*Teachers as Leaders*

Teachers as Leaders did not occur during that first year. There were too few experienced teachers that could assume leadership roles. I was grateful to the teachers who did step forward with ideas, suggestions, and personal motivation. The importance of a solid plan on how to proceed did involve the teachers who had come forth and demonstrated their leadership potential. They volunteered to help establish a plan for the coming year.

Teachers became leaders who worked on the summer writing teams. Each week another grade level of teachers embarked on the tedious and important task of examining materials, content, assessment, activities, and culminating projects. As they discussed each of the steps in the process, they began making connections. I didn’t call it constructivist thinking at the time, but that is what it was.

Since I was part of the writing process I could establish and model questioning strategies for the teachers, they soon began to understand how we move children from fact based to high level thinking within the context of curriculum content. Constructivist learning began to occur with the teachers in an indirect way.

**Year 2**

Among those teachers who found the curriculum too difficult, the typical marriages and babies, and the addition of more staff to accommodate our population growth, I needed to hire 29 new teachers, more than one half of the staff. We would
grow from 44 classroom teachers to 50. Most of them would be new to teaching. Five of them were hired later on in the year. That explanation follows.

We knew that the large number of first time teachers would require a more specific approach for teacher support so we established formal assignments that paired more experienced teachers with new teachers to the school. The CRT and I also planned ways for additional mentoring from both of us, such as frequent 1:1 conferencing, and classroom visits to provide helpful feedback. This helped new teachers as they began, and returning teachers in the transition into year two.

Teachers who were taking classes to teach the gifted began recognizing that the integrated curriculum was necessary in order to handle both the ever expanding content and the necessity of reaching students at higher levels. I also watched higher levels of thinking that was occurring among the teachers when they asked the students, “Why, how come, prove your answer, think of this is a different way, explain your answer,” began to spread.” They began to internalize what I meant when I said that all students should experience the same strategies and activities as the gifted.

Although I was able to instruct teachers in the design for a concept-based integrated curriculum during the summer writing teams, all members of the teams were not part of the writing. We also had so many new teachers that we needed members of the writing teams to reinforce the concept with their grade level members. They were charged with the assignment to bring the new teachers on board.

The author of one design being used, a national consultant, Dr. Lynn Erickson of Seattle, Washington, is a personal friend, I was able to get her to come to our school for a day. She worked with each of the teams, reinforcing the rationale, design format,
strategies, and implementation. The teachers began putting their experiences with the content and their knowledge of what they wanted to do with instruction together with a solid planning device. It was obvious by the discussions and interaction with Dr. Erickson, that they saw the benefit of continuing her ideas for a model for instruction, curriculum, and assessment. She helped teachers more clearly identify enduring understandings for the concepts. Dr. Erickson evaluated the work already completed, offered suggestions, edited the work, and encouraged the teachers. Subsequently, some of our teams wrote thematic units that she included in her latest book, *Stirring the Head, Heart, and Soul*, Second Edition.

All of us were excited over the opportunity to continue writing curriculum that was meaningful, integrated, and would provide teachers with specific approaches to use during content and process instruction. I could see the connection between this method of curriculum and design and what I later learned was a constructivist approach.

Adding to the professional growth, our Technology Specialist created a computer lab in the media center. Brand-new computers housed in beautiful student work stations made the Media Center look like the state-of-the-art school it was designed to be. Teachers would become more familiar with the advantages that our technology system provided. This would continue to be a work in progress. Each step in the process moved us closer to our goals of learning the most effective use of technology.

Another challenging part of my job as principal was learning how to adapt to the unexpected, and shifting gears quickly. In the case of year two, I was unprepared for the effect of 150 new students for a total of 878. When the school was built, large portions of the subdivision where the school is located were not yet complete. During the second
year, as more homes were completed, more students came. By January, it was obvious that our classrooms were too overcrowded.

There was a difficult decision to make. Maintaining overcrowded classrooms increases the problems with discipline and the quality of attention each child would receive. The other choice: divide classrooms; move children; handle upset parents and students who may not want to move; hire quality teachers this late in the year. As one would expect, teachers available midyear are generally those who are recent graduates. In spite of the problems associated with adding classrooms midyear, I was concerned about the current teachers, they were overloaded.

In January we hired five new teachers and divided five classrooms of students. Worse yet, we had to bring in portable classrooms to house them. This, in a school only a year and a half old. This was not a good time. In retrospect, I’m still not sure it was not a good decision. Disruption in that many classrooms make teachers, students, and parents off balance.

The CRT and I had to readjust quickly again, to make the new teachers feel at home, and the newly displaced students feel successful. It was very hard on the new teachers. When teachers arrive after the school year begins, and especially when they are away from the main building, new issues develop. We had to help teams accept the “new people” and assist the new staff members. The problem is obvious. Those who are new to the staff do not get the same in-depth coverage of protocol, expectations, nuts and bolts procedures, or the same sense of belonging that others get from the first day of preplanning.

An additional component came in our need to order more books, materials,
supplies, and resources, including classroom libraries. Of course, those items never come in fast enough for the new teacher to have everything needed right away. They have to “make do” for longer periods of time. Those new teachers who are now located away from everyone else have to put forth additional effort to become part of the team. This is not as easy as teachers would like to believe. We spent a great deal of time helping bridge that gap among team members who occupied space in the main building, and those on the same team located in portable classrooms.

In October, I was asked to mentor another Assistant Principal. The Assistant was charming, personable, and personally, I thought he was delightful. It became obvious that his training at every level of his learning experiences was based on textbook-driven, fill-in-the-blank programs. He was never provided an opportunity to extend beyond the restricted boundaries of his past experiences. He would do what he was told. Conceptually, he could not understand what we were trying to accomplish. I couldn’t mentor him, the way I thought I could. I was very disappointed to learn that some mind sets are irreversible. He was later reassigned to another school.

Our Young Author’s Conference brought together the community, teachers, and students. The daylong conference continued to emphasize and recognize the importance of writing. The Renaissance program for our identified talented students involved the physical education department as they orchestrated dance, and the music department as they showcased our talented students. Choir performances, and PTA functions occurred again the second year and provided many opportunities for parents to come to school.

There was a school community to build. Teachers began to show their leadership skills, as well as their dedication and commitment to the school, when they were willing
to step forward and lead parent workshops. This year we added a family Math Night. Parents and teachers became more comfortable when they realized that math is a combination of understanding and doing. A committee of teachers determined the most interesting concepts that families would enjoy with their children. Teachers developed hands-on activities to demonstrate mathematical concepts. In this way parents became more aware of the purpose of our method of instruction. Once they realized how hands-on experiences could translate into an abstract algorithm, they were excited. It was amazing how many parents sat playing the game or working the mathematical puzzle who said, “Oh, now I understand how that works, I never knew before, but I always got A’s in math.”

It was a good year, but an unsettled one. Our student numbers continued to grow, the teachers who began the year, especially those who were in their second year in the school, continued to bond with the Management Team and with each other. The Curriculum Resource Teacher and I spent hours planning, reflecting, discussing ways to make the following year more stable and focused. This may not appear to be very democratic; however, the two of us needed a very clear picture of the direction we wanted to go before we could involve others. When teachers discussed the direction, they wanted for the school, it was easier to understand, and support their decisions.

We continued the pattern that was established the year before. (1) Involve teachers in decision making regarding curriculum, instruction, and assessment. (2) Provide time for teams to continue working on concept-based integrated teachers’ guides. (3) Facilitate meetings where grade level teams spent full days together critically examining the current curriculum practices. (4) We continued to work on literacy skills.
(5) Emphasize team building.

What I Learned

Creating a Constructivist School:

Although constructivism was not a term being used at this time, in retrospect I can see that we began introducing the philosophy in year two. It was during this year that I was able to begin conceptualizing the term and what it meant. The literature identified constructivism more frequently and I was making the connection. Teachers were making more decisions. They figured out how best to generate higher level thinking from the students. Teachers were stepping out of their traditional experiences and moving more and more into constructivist thinking.

Change

Changing from a traditional approach to a constructivist approach in instruction, curriculum, and assessment, began to separate those who would stay with us and those who would not. There are several changes from traditional instruction of single texts, fact-based learning, and large group instruction.

Instructional strategies occurred in a variety of ways, such as: concept-based integrated instruction; individual and small group instruction and assessment; utilizing math manipulatives to develop in-depth understanding before moving to abstractions; providing engaging and meaningful activities; project based learning; and adapting to individual learning styles.

When we began discussing an integrated curriculum, it was clear who made the
connection automatically and those who struggled trying to figure out how content areas fit together. They still continued to fall back on covering the content rather than learning and understanding the bigger ideas and concepts. The notion of going a mile deep and an inch wide was difficult for many to conceptualize. It was interesting to see the personalities of those who could adapt to the changing practices.

When we had to move some of the children into new classes in the middle of the year, that change was very hard on teachers as well, even though the students seemed to adjust more quickly. Change continued, and adjusting to that change remained a constant for all of us.

Leadership

There is no question that when there is a major disruption to the school climate, it is very difficult to stay the course. Remaining committed to the mission, vision, and commitment to the philosophy became the key to the stability that we needed. It was important to encourage those who struggled with the direction we were going to find a more traditional school. I suggested they do that. I was anxious for stability of staff, but I had to be willing to keep looking until there was a good fit with where we were trying to go.

Watching and interacting with teachers and students within the class must be followed by face to face feedback and discussions. It is important to think and problem solve with the teachers. As a principal I knew I had to model the teaching I expected of teachers. The teachers were my students.

We also could not ignore the needs of parents. Some of our new parents were
comfortable with traditional instructional strategies and continued to question why there were not word lists for spelling. Letter grades for traditional report cards, and pages of math algorithms from a math book coming home for homework. It was necessary for both the CRT and me to take the needed time to talk to parents, discuss with them the rationale for such a model, and help them understand why we were doing what we were doing. Continuous communication, a clear sense of our goals, objectives, and vision, was necessary when conveying those beliefs to parents.

Teachers as Leaders

A few more teachers began coming forth with suggestions on how to help students in a more effective way. We were anxious to implement any ideas that seemed consistent with our philosophy. The 13 teachers who continued with the classes for gifted endorsement were also becoming leaders. They experienced better ways to instruct students and they spread the word to others. A professional network was beginning among the staff.

Teachers who were more comfortable with hands-on math were willing to conduct in-service training for the teachers. They were instrumental in providing workshops for teachers and parents. When teachers came forward to help train others, we made sure they were recognized for their expertise and leadership. We would use their skills to help others during the upcoming year.

Year 3

We were relieved to have two years adjusting to our new school behind us, and
we could move forward even more quickly. We hoped for greater stability, but it was not to happen. Once again we needed to add more staff. Our enrollment increased again by 80 students and reached 940 students. Thirty-seven staff members would remain from the second year, five were added later because of increased enrollment, 18 new staff members would join us for year three. How could we maintain the momentum in spite of increased numbers of new teachers?

The Curriculum Resource Teacher and I worked with a team of volunteer teachers to develop a solid plan for curriculum, instruction, and assessment. The first two years we concentrated on reading, spelling, and writing for in-service training, the teachers wanted to focus on math this year. We accommodated their needs by bringing in an outside consultant from the county level, and used our own staff members who provided additional workshops.

Of all of the content that demonstrates how constructivist learning occurs with teachers and students, it occurs in the instruction of math. By the third year teachers became more comfortable with ways the children learn math understanding, and they too, would become more proficient at providing the experiences through *Investigations*. The proof of their own learning transferred to the students, many of whom were provided the spiraling concepts from their two previous years. Students were getting it. Their success was amazing and mathematical thinking began to prevail. The pacing of lessons became easier for the teachers. The spiral nature of student understanding became more evident.

Students who were now in third grade, and were at the school for three years, had only a math understanding background. They did not see math as algorithm-based but as thinking-based. Each student who had experienced *Investigations* for the past two years
could tell you infinite ways to get to 100, for example. Their written explanations, diagrams, and ability to express their understanding of mathematical concepts demonstrate once again, the constructivist experience.

Because our staff had still not stabilized, we needed our existing teachers to take a stronger role in assisting others, not only in providing in-service training. We assigned peer mentors with the expectation that they would also help our new teachers feel that our school was a welcome place. The teachers who had been together for the two previous years were beginning to develop strong bonds. They were the experts in residence with more experience than our newly hired teachers, and were instrumental in developing the culture of the school. They were empowered to make curricular suggestions and assist in developing assessment strategies.

Our Curriculum Resource Teacher also developed a strong bond with each of the staff members. She was very committed to building relationships and did so with a commitment to help build a strong learning community. She was a very strong and capable educator who effectively held the hands of our young teachers as they began perfecting their craft. This was important at this time when the majority of the staff was young and relatively inexperienced. We faced continuous challenges in providing them with the support they needed.

We continued to assist teachers in several ways. We made sure that we were meeting each of their needs through continuous in-service. Every Wednesday we provided teachers in-depth study of an area they agreed they needed. Everyone participated to ensure that we were always talking the same language. For example, every time we discussed Guided Reading strategies we made sure we qualified what we
meant. This simple strategy saved us later on when new teachers to the school used the same term but applied it differently.

Another example of identifying terms in a specific way is evident in the term *looping*. This is a concept used in other districts and states. This term means that a teacher stays with her class for more than one year. The more the CRT talked about the concept the more appealing it became to those teachers who developed a special bond with their students.

The culture of the school began to formulate. Not only did we know how we “did business around here,” but we knew why we did it. We still needed to maintain a strong plan for the development of all instructional staff. Teachers in the first three years of the school used similar strategies for the teaching of reading, writing and spelling. They wrote concept-based integrated units of study during intensive writing for the last two summers. They were on the track toward further understanding higher levels of instruction. The new teachers were adjusting. We had history together. But something happened that caused us to get out of balance again.

Our Curriculum Resource Teacher announced that she would be moving after the first of the year. However, things changed in her time schedule and she didn’t leave until late spring. Teachers began grieving at the point of her announcement, and continued through the rest of the year. From the minute the Curriculum Resource Teacher (CRT) announced she was leaving, it seemed that staff members began reacting to issues that they would have ignored the previous two years. Her departure date kept moving further along in the year. The cloud of her leaving loomed over the heads of everyone. On one hand I was so glad she did not leave when she thought she would, she was such a strong
support. But, we had to begin anticipating the adjustments that would be necessary. It was unsettling.

When the CRT moved during spring break, I hired a teacher from another county. Whenever a popular faculty member is replaced by a new person, it becomes difficult for the replacement. It takes time to build trust. Our new CRT had less than two months to analyze and adapt to the new culture, and begin building relationships with the staff members.

The new Curriculum Resource Teacher came to the school at the busiest time of the year, when end-of-the-year events are constant. Her responsibilities were enormous and the learning curve was steep, because it was a new position for her and a new environment. She didn’t have time to understand the culture in such a short period of time. In addition, she came from a unique school culture. The educational environment from which she came had acquired a reputation as a world class school, a very elite one.

In an effort to let the teachers know how lucky we were to get such a highly qualified person, from a well-known school, I told the staff about our CRT’s background: (1) her training was of the highest possible quality; (2) curriculum and instruction were based on the best World Class experiences; (3) a teacher hired at that school was considered the best of the best. I was so grateful to have her join us.

Our new CRT was an excellent choice. She was competent, sensitive, professional, and had an excellent background as a classroom teacher. I knew she supported our vision, and that was the reason she joined the staff. Because she had excellent connections with other teachers, who were now willing and anxious to leave the same well-known school I asked our new CRT to watch for teachers who would also
want to come to our school. We needed additional high quality staff for the coming year. I knew about the teaching experiences that existed in the well-known school and I was confident they were exactly what we needed for several reasons: (1) the teachers were trained by the best consultants; (2) the teachers were dedicated to the belief that children learn best in a challenging environment that concentrates on a balance of skill and higher order thinking experiences. (3) the teachers continuously thought outside the box. (4) they were highly creative.

In addition, the well-known school was facing challenges of its own. A variety of world-renowned consultants came to that faculty, expounded their theories, and left the teachers on their own to figure out the implementation part. No follow up, and their only support came from each other. In addition, the intense political pressure caused administrators to leave, five in five years. There were so many changes in administration and philosophy that the original intent of the school was vanishing. Intended as a world class school, it was diminishing to a traditional model, the antithesis of the original philosophy. It was driving outstanding teachers out of the school. I was happy that our new CRT had connections to help recruit. I announced the excitement I felt with our teachers coming for the following year.

I was unprepared for the staff’s reaction based on their assumptions and perceptions. Even though the newly hired teachers were not yet at the school, the naysayer members of the faculty spread the word.

First, they said, “New people would change everything because as principal I wouldn’t have hired someone from the well-known school if I didn’t have such a plan. Then, they would take over, and everything we knew how to do was not valued.” Very
few of the current teachers knew, or realized, the true reason that we could provide the
teachers from the well-known school with a compatible philosophy. Nor did some of our
teachers ask why we could recruit them. Many, who were more resilient, didn’t ask,
didn’t care, and were willing to accept anyone. (I am always so grateful for this
personality).

We were so busy getting the new CRT up to speed, and all the activities
completed so that we could finish the year, that whatever under current was going on, I
was unaware of it at the time. I knew there were issues that remained unresolved and I
there was no time to get to the core of the problem.

At an end of the year reflections several female teachers wrote about their
experiences during the year. It was at that time that I realized the gossip and rumors that
existed, and how that could undermine what we were trying to accomplish. In situations
like this it is often difficult to know how many are involved and to what degree.

I tried to figure out the most logical reason for their perceptions. I remembered
how young most of them were. Was this behavior their immaturity showing? Teachers
had all the resources, materials, and supplies they could possibly want, we were in a
multimillion dollar environment, we have wonderful children. Why did teachers appear
to be off balance? Was it the challenging curriculum? Were there too many changes in
the three years, and they knew that changes would continue? Were they threatened by
equally capable teachers joining the existing group? These questions loomed on my mind
constantly. This was a problem for which I must get to the heart.

It took a long time before I began to realize that two additional things were in
juxtaposition. A support person the teachers leaned on to hold their hands left. I also
learned that there were two teachers on the staff who had the ability to stir the pot. I later found out that they were highly critical of everything that went on in the school. They were both excellent teachers and appeared credible with the rest of the staff. Their negative comments were not enough to turn teachers away from the vision, but it was enough to keep some people off balance. There did not seem to be any big looming issue, but a lot of little petty things—none of which came to my attention until much later.

The summer writing team continued to work on thematic units, refining, and adding materials. Each team seemed to add an additional level of understanding. I continued to work with each team, asking the hard questions, involving teachers in high level thinking, about what we wanted children to know and be able to do, developing engaging and meaningful activities.

What did I learn?

*Creating a Constructivist School:*

Maintaining the vision and holding on to the philosophical foundations of a school becomes critical, regardless of sometimes negative influences. Although the word constructivist was still not stated directly, I embedded the philosophy into most everything I talked about relating to student and teacher learning. As new people come to the organization, there must be extra time spent with them to help them understand the language of instruction and the culture being developed. The important focus must remain on how best to create an environment where constructivist learning is encouraged, nurtured, modeled, and supported.
Change:

Sustaining a positive and growing organization, during times of change, occurs at the school level for a variety of reasons. This past year change came in several ways. (1) More experienced teachers were added to the group, some saw that as a threat to their territory. (2) More students and their families became part of the school. (3) Teachers were making connections and bonding with their colleagues. (4) The loss of a key support person caused a few vocal teachers to react negatively.

Each person responds to change in different and often unpredictable ways. It is impossible to predict how members of the organization will adapt to change. This is an issue that cannot be overlooked.

Leadership:

As the school leader I must be prepared to respond to every issue. The human element is as important as the management issue. Remaining sensitive and responsive to members of the organization, when there are concerns, became critical to the successful progress of the school.

I learned from this experience that once a seated faculty begins bonding and developing their roots within a school, any perception of intrusion can cause unrest. This unrest should be anticipated and a strategy planned. Issues regarding change must be openly recognized with the staff. When that occurs then solutions can be found. The existing faculty must be validated frequently. The recognition should be in the way in which everyone on the team will focus on approaching potential issues in a proactive,
rather than reactive, position.

The size of the school, numbers of people involved, and my inherent responsibilities are likened to being a parent who keeps adopting more children. I recognize how teachers vie for positions, seek more attention, or retreat. Everyone needs attention and a continuous refocusing on the goals.

Many could see that I valued risk-taking and willingly supported innovative ideas, as long as there was a plan. Teachers knew this because I rarely turned down an idea that was well thought through. When risk-taking was supported, more teachers were willing to try strategies and suggestions. The question I always ask, “Will the students learn more or better because of what you will do? How will you know?”

*Teachers as Leaders*

Teachers often become leaders by self-proclamation. Sometimes it was the ability to convince others that they had expertise no one else had. In many cases, that was true. High verbal skills make a leader only when there were compatible beliefs with the direction of the school. Some teachers kept positioning themselves to be perceived as the leader. I could anticipate the difference in those teachers who were innovative and those who by nature were very competitive.

When nay sayers appeared to have leadership potential, they needed to be part of the decision making process. Often they became negative leaders because they didn’t have enough information, and were unwilling to find out the issues. It is difficult for teachers who work primarily within a small group of their peers to understand why decisions are made the way they are when they do not have the big picture. Once they
knew the rationale and reasons for big picture decision making, their attitudes changed. They needed to learn to go to the source of the problem or concern to get to the heart of the issue. Teachers must be careful to understand why a leader is perceived as a leader. Is a leader the one with the best gossip, first?

Effective teacher leaders did emerge during the third year. They volunteered more ideas, explained how new strategies worked and the successes they were feeling. More teachers were willing to step forward and demonstrate their instructional findings. They were positive about all that the school was accomplishing. They were verbally supportive of the philosophy and spread the word among their peers. This attitude creates teachers as leaders. When teachers hear positive comments about the school, their team, or the principal, from a colleague they respect, the positive influence of that teacher is felt throughout the school.

Teacher leaders enjoy the challenge of trying new and different things. Some of them were the ones who looped with their students. They enjoyed the bonding and learning gains that were associated with staying with their students for more than one year. This experience generated enthusiasm among other teachers to do the same thing. Looping is now a practice among many of our teachers.

Year 4

Although I remembered the unrest of last year, and the issues that a few nay sayers were complaining about, I assumed that typically the summer is the best time for people to regroup and problems of the year before are usually forgotten.

We approached the year with great optimism. Our planning days prior to the
students’ arrival focused heavily on the concept of creating a community of learners. Our Media Center was decorated with a large rainbow. The theme: *It Takes a Rainbow of People to Build a Community of Learners.* The items that each teacher received during the week carried the theme of community building in a learning environment. Rainbows were everywhere. We pulled from the work of others who suggested ideas on team building and engaged everyone in cooperative activities. I openly rejoiced at our ability to entice such quality, trained teachers to join our staff.

I gave the following introduction into the year:

“Earlier the brave, loyal teachers who were here from the beginning were given the golden hammer award in recognition of that first year when they put together their own desks to prepare for school to begin 12 hours later. I hired 29 out of 44 beginning teachers, all new, fresh, frightened, and overwhelmed became part of the staff. Most of them had so many changes at one time. They had just graduated from college, many were newly married, they had just moved into their homes, and began a new job in a prototype, progressive school that wasn’t even completed. To those of you who experienced multiple changes in your life any other change is a walk in the park by comparison. You learned, you grew, with repeating cycles. The more experienced teachers took you under their wings. They shared, and we all worked together to create the school that had a very strong vision. It has not changed.

Students will learn in an environment rich with every opportunity to gain foundational skills and understandings and build as quickly as possible to develop deeper understandings. Teachers will model the continuous learning that we want
for our students. Teachers will take their students a mile deep and an inch wide, not the other way around. There is too much content required in grades 3-4-5 to cover each topic well. We cannot develop children’s ability to think about their own thinking, developing the metacognition that creates a truly successful thinker, if all we do is tiptoe over topics. Although we have spent three years working to develop concept-based integrated units of study, we still have more content to cover than we have time to do it.

The District has created a document, created by teams of people for whom I have the highest regard. They have identified grade level benchmarks that clarify each concept we want all children to understand. Practitioners have developed additional tools for us to use. We will evaluate the curriculum alignment for the grade levels and reexamine our units of study. The process of looking one more time at what we do, and how we do it, is a demonstration of how a big idea crosses over many disciplines and applies to a variety of learning experiences. It is about thinking and drawing conclusions.

We want our students to utilize their prior experiences, combine that with new understandings, and apply that learning to other situations as they develop their own reality. Once students demonstrate what they think they know, you will guide them to continue thinking, clarifying their ideas and formulating new thoughts in a continuous cycle. Students will write about what they do, assess what they know, and develop a love of learning. They will develop a constructivist approach to learning.

My commitment to you as teachers, support people and paraprofessionals
is clear. We will work and play in a warm, enriching environment where we become as a family in our dedication to the children in our care. We will continuously learn together, always finding a better way to help the students stretch mentally and grow emotionally. We will model for our children as we teach them to get along with others, remain empathetic, and thrive within our wonderful diverse cultures.

I will see to it that you are provided whatever tools, materials, and resources that you need in order to make your difficult job a little easier. I will always be here for you, for any reason, personally and professionally. I will study, question, reflect, and seek answers with you. I will change, as you change, adapting to your needs, supporting you any way I can. I will always value your contribution to our school community and your commitment to the students. I want to earn and maintain your trust, as I hope you will earn and maintain the trust of each other.

Teaching students to think, solve problems, transfer their learning, produce a quality product or demonstration that shows high level thinking, can only be accomplished by the most talented of teachers. Our school is a progressive school. It is not a traditional one. You are here because you are the brightest of the brightest, the most dedicated, and the continuous learners any principal would envy. Our area superintendent and our county superintendent know that Southwood cannot be touched for the innovative and state-of-the-art curriculum and instruction you provide the students. Your reputation did not come without an enormous commitment on your part.
We have struggled, as all changing organizations do under similar circumstances. It is a part of the change process and it is expected. But let me attempt to put things in perspective. As new staff members were hired or teachers who are new to a grade level joined our teams, a new set of dynamics occurred. A once clearly defined culture was changing. We grew. The good news about growth—we can bring into the school new people who add to our existing wealth of incredible teachers. We have evolved into the Southwood Team; capable of joining our collective minds to develop into constructivist teachers, who problem solve, collaborate, and draw conclusions.

One example of a problem to solve that needs your collective wisdom and your past experiences. The big question--Where do we find enough time to do all we have to do?

Time is such a precious commodity. Every one of us complains that we do not have enough of it. I talked to you and spent more time with some than others, because some of you will stop by my office to say, “Hi,” before school starts in the morning. I love the time I can spend with you, solving problems together, or discussing a child.

We must value our limited time with the students and carefully analyze how students are engaged in learning. We cannot afford the luxury of providing activities that are cute, but serve only the purpose of keeping students busy. Just because a student is working on a piece of paper and is quiet, does not mean that learning is happening. We are in a school that expects that we as teachers utilize a constructivist approach to develop our students into the natural thinkers that will
make them successful learners. This requires dialogue, discussions, cooperative
grouping, and teachers questioning students with higher order probing. This takes
efficient use of time.

As a Management Team we have to become much more conscious of
time, procedures, policies, and communication to work more efficiently. As you
will see during various parts of preplanning, we have thrown most of our past
procedures and policies away. We started over to accommodate a variety of
concerns that developed over the last four years. Hopefully, in our tightening of
policies, we will all be able to spend more time talking about ways to help our
children and less time with procedural things that interrupt the smooth flow of the
school. No one will need to think up the best way to do something. Nor will you
need to ask someone how to do something, and follow what they say, because it is
the way we do things. Instead, we will have every policy accessible by computer.
You’ll have time during your session on technology to get into the site where
policies are written. If you have any question about procedures, and it is not in
writing on the website, then do not ask your neighbor, because policies are not the
same as they were last year.

We are seeing the results of your outstanding instruction, curriculum and
assessment as our students are now entering fourth grade. They are the first group
to go through all four years in our school. Moving from a C grade to a B grade, in
spite of how much we dislike standardized tests, are reflective of the fine quality
instruction our students receive from you. The South Learning Community’s
Curriculum specialist, and our Senior Director, literally screeched with joy when
they saw the incredible job our fifth graders did on the performance section of the FCAT math. Outstanding—with several students receiving the highest scores possible.

This will be a great year, filled with exciting opportunities to continue to grow and change.”

In this way, we assumed that we could get the year off to a positive start and everyone would begin the year through fresh eyes. On the surface the year appeared to get off with excitement and motivation. We grew again from 55 to 61 teachers, and 21 of the 61 were new to the school.

It seemed logical that by the fourth year of our school we no longer needed to hire primarily new teachers. As much as I enjoy “raising” our young teachers, we needed a balance. I would continue to hire teachers who could fit into the more experienced group. We were growing up. Our new teachers were happy to be part of the school. They couldn’t wait to share their new ideas and approaches. But there was a problem. The newly hired, but experienced teachers came with their own background of experiences. However, their philosophies were the same. But, they entered a culture where a specific set of strategies and instructional beliefs were now secured. The recently hired teachers had their own ideas about how to implement the school’s philosophy.

Suddenly, those who grew up from the beginning culture saw the different ideas brought into the school by newly-hired experienced teachers, with different strategies and instruction, as that is not how we do things around here. This attitude of the teachers, who were at the school for three years, was consistent with the literature that reveals that
when outsiders enter an existing culture conflict occurs.

I try to assess every staff member on their ability to work with their peers. When people don’t get along, I try to figure out why. The conflict that I finally heard about had a much more damaging piece—unkind gossip. The written reflections of the previous year remained. Whenever I hear that time spent gossiping and speculation replaces time spent talking about better ways to serve our students, I try to find the pot-stirrers and their partner’s. I found them, confronted each of them, but they didn’t get it. Great teachers; they just loved to keep things stirred up. It only takes one teacher, perceived as having credible information, to say or imply something negative, or downright mean spirited, about someone else, and in a blink of an eye, that statement spreads and becomes a fact to the eager listeners. Many teachers would simply not let go of the “us vs. them” frustration. I could not believe that grown up people who have a concern about someone would rather tell 10 of their colleagues than confront the one person with whom they have a problem. On the whole, teachers, especially female teachers, dislike and avoid, confrontation. They simply won’t confront the person and accompanying issues to bring resolution.

In past schools, unless the situation appeared to be completely out of hand, I would overlook this gossip thing as a fact of life. But, I had too much passion about the success of this school to let this go on. After almost four years, I now believed I could not see the forest for the trees. I was so frustrated that staff members were squabbling. I had about 10 out of 52 teachers involved in some form of mean-spirited gossip. This had all the possibilities of destroying our culture except for a major intervention that occurred. What’s a principal to do? I needed objective help.
It was no coincidence that at that time I met Dr. Arthur Shapiro of the University of South Florida, a consultant, author, and professor. As I sat in his office, I noticed his latest book at that time, *Leadership for Constructivist Schools*. As we sat talking, I told him how much we were trying to develop a Constructivist School.

I was quick to point out that we had undergone many changes in the three years we were in operation and all of a sudden I felt I was in a stuck place. I described the accomplishments and progress we achieved. But, I felt I could not see the forest for the trees. He had extensive experience in working with schools as they build a school culture that focuses on student learning and teacher success. The more we talked the more I realized we needed his expertise to sort out the problems from the solutions. Dr. Shapiro’s, *Analysis of Change* strategies was needed.

He came to the school and sat with me, the CRT, Technology specialist, and Guidance Counselor. We discussed the issues as we saw them and reconfirmed the direction we wanted to go. He quickly assessed the problem.

1) An elementary school of 960 students and one principal is too large. Groups of eight teachers on a team, with the expectation that everyone will get along and stay happy with each other, all the time, is unrealistic.

2) Teachers don’t really know or understand each other’s personalities so that they can work effectively with their colleagues.

3) There needs to be a plan on how to proceed.

4) We needed to establish a planning committee so that we can determine the real issues and how to resolve them.

He helped us develop a plan that could assess the situation and help us get beyond
this stumbling blocks. He returned a few weeks later. During that time we revisited 
some of the issues with staff members. Teachers selected representatives from each  
grade level, and I specifically asked our *nay sayers* to become part of the solution.

Each team sent a representative to a planning meeting with Dr. Shapiro. We were  
able to find school funds to provide substitutes for the teachers as we met for a full day.  
We created a professional environment in which to work.

Dr. Shapiro identified our task and we began brainstorming issues that we felt 
were important. During the meeting all the issues that the teachers could determine were  
listed in chart form. From the initial concerns and issues our consultant began narrowing  
the issues from broad statements to more concise topics. Each funneling of items lead to  
manageable plans of action. There were charts all over the conference room as Dr.  
Shapiro wrote our thoughts. He remained poised on a ladder to capture all the  
information that the team brain stormed. The ideas covered floor to ceiling chart paper.  
After the final wall chart was completed, our Technology Specialist created a final hard  
copy. The chart was displayed for everyone to see.

Dr. Shapiro separated the issues into six areas:

1) Issues and Concerns

2) A summary of those issues and concerns

3) Themes

4) Potential Lines of Action

5) Underlying rationale

6) Outcomes

A detailed chart is found in Appendix 2 p. 430.
Each issue that I explained earlier became part of the statements. For me it was an Ah-ha--so that is what the issues were all about! Each concern I felt was now verbalized and in writing. I was getting the picture.

We learned many things from this experience. First, we had many issues that we could not ignore. The tasks before us were clearly defined. It was now up to us to carry out the mission of accomplishing what we said we would.

During each of the subsequent planning team meetings, detailed minutes were recorded. Following each meeting minutes were provided to every member of the staff. This strategy, emphasized by Dr. Shapiro, set the stage for all team and group meetings. It avoided the problem that exists when a committee member is pounced upon by others who were not in attendance to explain, “What happened? Who said what?”

The communication among every member of the staff was critical. Providing everyone in the organization with the same information, at the same time, with details of meetings allows for clarification of the issues by those who did not attend. Without a common framework of reference, reinterpretation, or attempts at recalling the specifics of a meeting are often misquoted or misunderstood.

After reviewing the issues, we determined the need to discuss each item. We started with the most emotional one. We needed to develop more effective ways to recognize each staff member.

We met with one team at a time and reviewed the Issue and Concern statements from the Analysis chart. People’s feelings had been hurt, some felt more valued than others, there was bickering and lack of communication among and between teams.

We then asked the teachers to tell their stories. Staff members’ emotions were let
loose. One box of tissue for each grade level became the standard, as teachers revealed their experiences during the school year. We laughed, we cried, we reflected. Some of the issues that teachers experienced and their interpretation of why and how things happened the way they did, that caused them such anguish, was hard for me to hear. Whether or not there was another side of the story, their frustrations were real and from their perspective, very difficult. Some of their experiences were painful, but they were open and honest.

Each grade level had different issues. Some teams had fewer issues than others. However, after we covered the agenda and openly discussed the concerns, we all felt better. Closure was brought to many issues that just needed to get out on the table. For example, one team had a very autocratic team leader. The concrete sequential leader wanted order, organization, business completed, and “to do” lists given to each team member. Each of the other team members were other personality types. They wanted to talk, discuss children, and interact. They felt they were being talked at, not talked with. Yet, none of the team confronted the issues with each other until our meeting. The teams found a solution.

Establish a different system for team meetings.

1) Rotate the meetings from one classroom to the other.

2) No one people would have to assume total responsibility for the entire team, as perceived by the team leader.

3) During each meeting everyone would have a role to perform that would rotate from meeting to meeting.

4) Food responsibility would be rotated as well.
5) Minutes would be distributed to all team members and the Management Team. As other teams met, the opportunity to tell how they were feeling about issues allowed the team to confront concern, solve problems, and figure out solutions. This step required constructivist thinking. After each team met we concluded the day. Every one of the teachers felt that getting together was something that should be done on a continuous basis. The teachers decided that they would include similar discussions as part of their team meetings. At the conclusion of each session, the CRT and I felt drained. It was an outpouring of emotions that we accepted as the individual’s view of their reality. Keep in mind. This is a predominately female staff.

Identified as another Issues or Concern was the distrust between those who had been with the school since the beginning, and those who were recently hired. Dr. Shapiro recognized that with the many changes in staff since the school opened, we didn’t really know each other. We worked together, yes, but we needed to understand and accept each other.

Dr. Shapiro returned to the school several weeks later, to help us with this step in the process--find out who we are and what makes us tick. He suggested we first complete an individual assessment of our strengths as well as areas of less strength using the Gregorc Personality Inventory. Once the form was completed, Dr. Shapiro led us in an exercise to examine what the results meant.

We learned that people exhibiting specific personalities in any one of four areas in this self-analysis instrument will demonstrate some of the following basic characteristics:

<table>
<thead>
<tr>
<th>Dominate Style</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Concrete Sequential</td>
<td>Linear, methodical, ordered, practical</td>
</tr>
</tbody>
</table>
Each of us demonstrates combinations of these characteristics. It provided a vehicle from which we could better understand the behaviors of ourselves and others. We could truly look beyond the surface of some of the frustrations to understand the various ways that people operate. In this way some of the issues with individuals immediately dissolved. Remarks such as, “Oh, that’s why you did it that way.” “No wonder you were irritated with me when I said that to you, that isn’t what I meant, it’s just the way I think!”

The results of the inventory, and the opportunity to dig deeper into how we each think, act, relate to situations, and respond to others would provide valuable information as we moved to the next steps. This also was a chance to laugh at ourselves. We could find humor in our idiosyncrasies. We listed each team member and their Style and distributed the list to everyone. From this point on, everyone hired receives the Style Inventory. During every preplanning session, before school begins, each person has an icon identifying their personality type.

As the year continued we continuously referred back to our experiences with both the plan that required action on several levels, and the understanding of our personalities. Teachers seemed more relaxed, more open. Most staff members were now comfortable discussing concerns and issues with each other, trying to arrive at mutual conclusions. It appeared that teachers became more student-centered at this point. When up until now,
the issues were very personal.

Throughout the year our CRT created a strong support system for those who were encouraged by her to advance through the laborious process of completing the National Board Certification process. The motivation and continuous encouragement she provided, placed an important focus on the most sophisticated methods of curriculum, instruction, and assessment. The more teachers became involved in the process the more they stated that they could not complete the process if they were in any other school. Our expectations of how children are taught, parallels the requirements for the lengthy and comprehensive National Board application. National Board candidates become some of our best cheerleaders.

As teachers began thinking about the upcoming year, they began having serious discussions about different configurations for serving students. Discussions began centering around ways to reconfigure grade levels into vertical rather than horizontal teams. Teachers began brainstorming other ways to arrange classroom locations that would involve more than one grade level. Since the school is designed with clusters of four classrooms, around a central planning area, there were suggestions that perhaps teachers could create a cluster of three or four grade levels in one area. Constructivist thinking occurred. However, teachers were not ready to make a firm decision on vertical teaming just yet.

We realized that there were still issues that needed closure. Even though the year was coming to a close, and teachers’ anxiety level was high again, we didn’t feel we could wait. It appeared as if, for the first time since school opened, we would have fewer new members of the staff for the coming year. What would that mean? Once again, we
used money set aside for planning to bring one grade level at a time together for another full day. I wanted to try to bring closure to the issues we discussed earlier, reflect on what happened, and determine where we wanted to go as a next step.

The agenda:

1) I read a selection from School as a Journey, an eight-year odyssey about Torin Finser’s experiences with his classes at the Waldorf School as he looped with his students every year from kindergarten through grade eight. I read a part of his essay that was appropriate for each grade level. This set the tone for the reflective writing that would come next on the agenda. After reading the story we asked teachers to write their reflections on the year.

2) The teachers wrote for 45 minutes and reflected on the year, using guided questions.

3) Each teacher shared:
   
a. What are the highlights of your year?

b. What makes you “tick?”

c. What makes you “ticked off?”

4) What makes an effective team?

a. How do you determine if you can trust someone?

b. How do you communicate effectively, so that everyone on your team understands you?

5) How do we determine our culture?

a. What do you believe is a way to identify the “culture” of a school?

b. What do you believe is a way to identify what you want the “culture” of
your team to look like?

I served only in the position of facilitator. I also kept the minutes so that I could be as neutral as possible. The examples below show how some teachers felt:

**Teacher: A.**

To my principal:

Thanks!

Thanks for all you’ve shared

Thanks for all you cared.

You’ve made me smile

You’ve made me grow

You’ve been there through it all

You’ve been inspirational

You’ve pushed me to try new things

You’ve given me the strength I needed

To be my best

To strive for excellence now and ever more

To my teammates: Working with such talented and creative people, has given me new insights into the teaching profession. The hope of knowing that we could work as a team, bounce off ideas, shares our stuff, help with our problems by suggesting solutions. S..., from you I learned about the variety of problems children face outside of school, that in turn affects their academic performance.

A. from you I learned to be very flexible. C. From you I learned how to
incorporate the arts into my kids education. Who would have thought?

Shakespeare, at my grade level? You all challenged me to do new things. My children and I have both benefited from you.

From my kids I learned that anything is possible and challenged they and they were empowered, and met the challenge. I laughed and I cried with you.

Thanks.

Teacher B.

My team members and I enjoyed a bond this year which I didn’t have last year in the other grade. I learned so much from each other and it was nice to have the emotional and professional support network right there. The best thing about my relationship with my team this year is that they were always open to innovative ideas.

Teacher S. has been teaching a long time, she was always willing to try something new, even if the wheel had to be reinvented a little. Neither of us ever felt we “knew” the way it had to be done and that was that. It led to a year-long discovery of new things and laying the foundations for new things to be tried in the future. I think it was for the betterment of the kids.

Teacher C:

Well, there is a lot to be said for this year. Some positive things happened as well as some negative.

As far as for me and my children, I feel I did a much better job teaching
them than I did last year when I was new to Southwood. This year I was more familiar with the curriculum which made it much easier and made me more confident when I was teaching. I feel I really “connected” with my students this year. Overall, my experience with my students was a positive one. I am feeling good about my job this year.

I do feel however, that our team could have gotten along a little better this year. We sure hit some rocky roads on this year’s journey. I think if everybody would just treat people with respect and how they would like to be treated, everyone would have gotten along much better. I guess though when you put so many different personalities together you are bound to have some friction. Maybe I need to quit being so sensitive to everything and quit taking everything so personal.

I am looking forward to my class next year. I have really learned a lot from my journey through Southwood. I had a chance to work with some wonderful and truly gifted people. I learned a lot of different methods of teaching and that it is O.K. for things not to work out exactly as you had hoped the first time. The important thing is not to give up and to always try and think of some better ways of doing it next time. I will never forget my experience here at Southwood as I learned a lot.

Teacher D:

The fourth year of the school was like every other year. It has had its victories as well as its defeats. On a professional level I feel very positive. I had
the opportunity to collaborate with a wonderful teacher. Someone I trust as an educator and a friend. Together we have taken our students to places we thought that at this point in time were unattainable. I am grateful for this experience because it has made me a better teacher and me am confident of this based on the performance of my students. Because of the program’s successes I thought about exploring the possibilities of collaborating on a different grade level and possibly with another teacher. But I don’t let my imagination get away from me. I love teaching and I am driven by the needs of my students cultural differences that are not easily transcended.

*Teacher E.*:

Every day I thanked God for my class. They are truly what kept me going. The different academic abilities and personalities have been quite a challenge for me. I have enjoyed them greatly. My class has made a great deal of progress this year. We have been through social issues together. They have been developing a respect for each other which is what we all need regardless of our age.

The comments were sincere, expressing all of the ups and downs of the year. They seem to be reflective of most people’s experiences. A few wounds still needed healing, but I felt we had made an enormous breakthrough and could now move on in a much more positive way.

Once again, we would experience another change, for the upcoming year. We lost several thousand dollars from our budget because our student numbers dropped by 14
students. That particular number reduced our budget considerably. We would lose three teachers. That would mean that three teachers would not have to remain in portable classrooms, but could come into the main buildings. I took advantage of the situation and gave teachers the opportunity to once again experience constructivist thinking. If I was going to continue modeling the decision making and problem solving process, I needed to provide the vehicle by which teachers could own their own decisions.

The teachers were given a blank map of the school in poster form. They were to choose their own room for the upcoming year, and the teachers with whom they wanted to work. As the teachers sat looking at the map, they realized that every decision created a new problem for which they must find a solution. This demonstrated the process of constructivism. Problem solving, utilizing past experiences, and generating a new understanding, were the purposes.

Staff members became frustrated. They wanted me to make the decision. Finally, the teams said that if I would make the decisions, then the staff could just be mad at me. This way they realized that if they didn’t get what they wanted, they might get mad at each other. I left the room, and let each person and team make the decisions. Each person saw the ripple effect of every decision made. Although each staff member found a classroom, many were not happy with their decision, even when they were a part of it.

This was an example of when teachers do not want to make decisions. They would rather someone else made it for them. Democracy, in a case such as this, demonstrates the challenge of an environment where decisions are made by groups and constructivist thinking was an expectation.
What I Learned:

*Creating a Constructivist School:*

Learning how to think, problem solve, work together, and make decisions that affect each other, is a difficult and challenging experience. Only experience and opportunities to engage in constructivist thinking seem to provide staff members with an understanding of what constructivism is, what it looks like, how it works, and how it feels. Then internalization will occur. When the process is repeated, then the philosophy would become automatic. It is a slow, laborious process. It is neither simple nor easy.

*Change:*

The addition of new teachers can cause unrest. The staff did not stabilize yet and those that did not handle change continued to remain off balance. Personal needs often outweighed professional growth.

Identifying change is a natural part of a growing school. Teachers understood the rationale, but a few were not comfortable with the outcome, even if they were a part of the decision making process. Change would become identified as part of the culture of the school. If, and when, instructional strategies change, at that point there must be clearly articulated statements of expectations, restating philosophical positions, and redefining, if necessary, the culture. Everyone must own the change. A reevaluation of our culture and how it changed became necessary. We realized that cultures change naturally as they evolve.

*Leadership:*

Providing the staff with an outside consultant had a positive effect. An expert can
often see issues more objectively. In this case, Dr. Shapiro also had the personality to help us see a way to problem solve in a non-threatening way. The focus became how to solve the problem using a carefully orchestrated plan. As part of the plan, we also focused on sensitive issues, as teachers expressed their feelings about issues and problems.

New teachers need clear structure at the beginning of their careers, but should be encouraged to branch out, looking at other ways to do their job even better than before. They need time to get their feet on the ground and demonstrate their ability to understand what students need in order to become successful learners. We need to talk about new ways of doing things. The, we do it this way, wall that ensures a solid foundation of instruction should recede when we encourage and articulate to teachers the support to try their wings when they feel they are ready. All teachers must feel comfortable in a nurturing risk-free environment. We need methods of communicating new ideas while validating existing ones, so our philosophy and culture will continually grow.

I recognized that teacher’s issues and problems were important to them. Without acknowledging their feelings and frustrations the wounds that were experienced would not heel.

Teachers as Leaders

We needed a forum and environment for all teachers who continued to master their teaching craft, to talk to each other, continuously analyze student work; discuss student behavior; and assist with parent interactions. Not only should new teachers have a mentor or peer coach, all teachers must be there for them, and for each other. We need a
vehicle for discussion between both small group and large group team meetings. Discussions among teams must include everyone. Validation of the worth of each team member also becomes critical for the levels of trust to develop.

When new teachers come into a school, the current teachers must receive extra validation. Once the current teachers feel they are valued, then anyone coming into the school for the first time is entering a school that has a well-developed philosophy and culture in an environment that welcomes new ideas. If any change would occur, it is a result of a joint decision among all staff members.

Teachers who were self-assured, competent, and objective, became the cheerleaders for the school. They were the group that most effectively mentored others, because they modeled appropriate professional and behavioral attitudes. Teachers who created innovative ideas needed support to think through the process and develop a plan for implementation.

Year 5

During the summer, I was able to hire another Assistant Principal. I was desperately in need of help. Our student population exceeded 950 for the last three years, but money was tight and it was more important that I use the money for the Assistant position to reduce class sizes. So, I managed only with the help of the CRT and Secretary. The three of us constituted the management team. The more we tried to accomplish, the busier our schedules became. 12-16 hour days began to take their toll. The CRT and Secretary took on many administrative roles to help me keep my head above water. We were all stretched as far as possible. We now had a Management Team of three, the CRT, Assistant Principal, and me.
The AP was a teacher in our school from the first year we opened. Well regarded, she is highly competent, energetic, and motivated. Her management style is very compatible to both the CRT and me. We have a balance of personalities. She is a very welcome addition to our team. This is the year she began her county-sponsored Preparing New Principal program. I view my job as one to mentor and help prepare her for the time that she will be able to run a school and carry out our constructivist philosophy.

We had three fewer teachers, only eight new teachers, although our student population was still at 958. The staff finally stabilized. I wanted to jump for joy.

One frustration arrived when I was required by the county to hire a teacher who was displaced from his position in another school, at the last minute. Two days before pre planning, I experienced another set back in my belief system that everyone can learn. Some people just choose not to. Such was this teacher, who would not budge from his position of teaching from black-line copies of activities. Although I spent all year documenting the need for his dismissal, he too, was hired by another principal for the following year. (The principal did not call me to check on his instructional skills).

However, at the beginning of year five we were all very excited over being together. During our preplanning days I recognized those teachers who were beginning their fifth year with us. I painted hammers with gold paint, and tied a ribbon around each one. Along with a certificate of accomplishment I presented each of the veteran teachers with the Golden Hammer Award. (Recognizing the time when we were hammering away on the day before school started). In this way I hoped to recognize their hard work and their value to the rest of the staff. I wanted to maintain the consistency of the plan.
developed through the Analysis of Change--recognizing accomplishments and validating
the staff.

We had additional reasons to celebrate. We had four teachers pass the National
Board Certification exam. We now had six Certified teachers on the staff. This is far
more than anyone in our county, including the high schools. In addition, our Teacher of
English for Speakers of Other Languages (ESOL) was the only NBC teacher in her field
in the county. We had a huge celebration, plaques and accolades. The School Board
Chairman, and our Area Superintendent helped us recognize the teacher’s
accomplishments. This was a major turning point.

We focused on the important reasons why our staff demonstrated their
motivation: ability and commitment. NBC teachers also supported each other through
the National Board process and could see the benefit of all their hard work. Our CRT was
instrumental in encouraging and supporting the candidates. The staff recognized her
dedication and commitment to helping the teachers. Not only did the staff recognize their
impressive accomplishment, but the teachers were obviously very proud of their
achievement.

This was the opportune moment to openly state that we were a Constructivist
School. The rigors of the National Board process and the expectations for demonstrating
student and teacher learning require a constructivist belief. Now, teachers understood
what teaching in a constructivist school meant. Once again they professed that without
our school’s philosophy and support, in the way teachers can teach, they could not
become so successful. Of course, the added critical component was the support system
they received from our Curriculum Teacher and the other NBC teachers. National Board
Certification became a goal for many additional teachers each year and became another part of our culture.

Then, when no one was prepared, the tragic events of September 11, dramatically impacted our school. It was a day none of us will forget. The day of the attack, my Assistant was in immediate contact with her uncle, the lead fireman in the Emergency Rescue Unit, near Ground Zero, specializing in extreme rescue efforts. She maintained continuous contact with him throughout the ordeal. This provided us with a connection we made later on that had a long-lasting effect.

Our parents were frantic. Of the 700 families, 500 of them immediately raced to the school to get their children. Many of our families were from New York. Some of our parents of teachers and students were thought to be in the Twin Towers on business. Many were in New York. Others had families living in New York. Several of our parents came from countries where they lived through either the constant threat or the reality of terrorism. They were all so frightened.

Everyone in the main office building immediately went into crisis action mode. With little direction, and no forethought, I assigned jobs for every office staff member. Teachers who saw the emergency and were able to help did. I worked the phones, answered questions, and tried to calm hysterical parents. The Assistant Principal orchestrated crowd control. Eventually, all families who came to school left to take their children home. The rest of the children remained in the classrooms with teachers who tried to carry out the remainder of the day as calmly as possible. Very few children attended school the next day.

Our Assistant Principal learned that the men at the Emergency Fire Station near
Ground Zero needed supplies and clothing. They were unable to get to their homes. They were not leaving their station until they had found all of their *fallen brothers*. We saw this as an opportunity for our school to become involved in helping others. Everyone in the school rose to the occasion. Over the next several weeks we collected items from students, parents, and staff. The Assistant Principal mailed boxes of items to the fire station.

Classrooms of students adopted firemen. Our young children now had first hand experience in understanding the concept of a *hero* that did not come from the sporting or movie image. One specific classroom of children began corresponding with individual firemen, sending them gifts and letters of encouragement. During their down time firemen became pen pals with some of our students, sending them pictures of their families, and writing about how much they appreciated their thoughtfulness. They later said that these sincere messages from children helped keep their determination high.

In the months following the tragedy, those students who later visited New York stopped by the fire station and saw our school’s collection of letters on the walls and lockers, and gifts the children sent on the desks and tables of the men. When firemen and their families came to Orlando, they were invited to the school and were greeted as the heroes they were.

This experience provided all of us with the vehicle to unite and prove that constructivist thinking was a part of our culture. Each child and adult in the school could think, problem solve, draw conclusions and develop projects to provide others with help and support. Within a constructivist environment, character building emerges naturally.

For the first time since the school opened, I could see that we were building a
community of constructivist thinkers. It began to come together.

Dr. Shapiro returned to the school to see how we were doing. We reconvened our committee. It was a time to regroup and determine that we were on the right path. We reevaluated the Analysis of Dynamics of Change, working through each of the steps. We agreed that we were on the right path.

We revisited the Analysis of Dynamics of Change Plan:

Trust Issues:

(1) The primary nay sayers moved to other schools, and other positions.

(2) The trust level between the Management Team and the teachers was evidenced by the number of interruptions we have in the day. We conscientiously respond as soon as possible to teacher requests and needs.

(3) Generally, teachers bonded more this year, especially when they were able to choose their teaching groups. This became apparent when I saw more clusters of teachers getting together to socialize, talk about students, and brainstorm ideas. The focus was more centered on the students.

The lines of communication were greatly enhanced:

(1) We used technology consistently with e-mail messages back and forth to confirm and respond to questions; every member of the staff receives the same information at the same time.

(2) Teams were aware of the need to communicate and resolve issues, although we continued to work on this issue.

Team sizes reduced:

(1) The actual team sizes won’t decrease because of the increased school size.
However, different groupings of teachers put compatible smaller teams, within the larger team.

(2) The idea of vertical teaming throughout the school was modified. Instead, one team comprising more than one grade level in a four-classroom area would become a pilot project. We would evaluate the concept at the end of next year.

Parent Involvement Program:

(1) Programs that we began earlier continued, such as Concerts, and Family Math Nights.

(2) The PTA remained an active organization and promoted two family dances and one all day Family Fun Day. Our PTA has always been very easy to work with and extremely supportive of our school.

Multi-Cultural Planning Committee:

(1) This committee did not form at this time.

(2) The Assistant Principal and ESOL (English for Speakers of Other Languages) teacher, organized the Parent Leadership Council, a group of parents who come from non-English speaking backgrounds. They provided insight and suggestions on ways to improve the communication between families from other cultures and the school.

Need for staff Recognition:

We had many reasons to celebrate.

(1) With each event, we set aside time to recognize and celebrate accomplishments. We created an elaborate celebration, complete with guest presenters, plaques, and accolades. We celebrated engagements. We had showers
for weddings, and babies.

(2) We continued with our Wonderful Wednesday celebrations. Each team was responsible for entertaining the staff with food, activities, and fun. Teams developed ways to have teachers mix with each other.

All staff participation in curriculum planning:

(1) Throughout the year our teachers presented and demonstrated innovative ideas to focus groups.

   (a) The focus group’s topics were determined through a staff survey that asked the areas in which teachers would like more information. Teachers chose the area of study in which they wanted to participate.

   (b) Teachers were responsive to each of the in-services we provided, we could see by the experiences and learning that occurred in the classroom.

   We had 100% participation in each in-service session.

During the course of the year, our CRT made an important connection. We knew that connecting with a university could develop into a successful partnership. In this case we were invited to become part of the FlaRE project. A Family and School Literacy connection provided resources for the support to establish a Literacy Council.

The Council was selected and met with the representatives of the University of Central Florida. We made a school commitment to become part of the program. It gave us the opportunity to recognize leadership among our teachers who could in turn help others by conducting literacy workshops back at the school. We would participate in a week long summer workshop.

It was our best year ever. At the end of the year, we had a Zen experience. I
brought all of the staff to the Media Center. After serving herbal tea, to the restrains of 
earth sounds, surrounded by burning incense, and dimmed lights, I asked teachers to 
reflect on the year.

They were asked to give us their name. Then write their responses to the 
following questions:

(a) How do you feel about this year and why?
(b) What did you learn that made you a better teacher?
(c) What did you learn that made you a better team member?
(d) What are you looking forward to next year?

Their reflections showed how far we had come. Gone were the references to 
squabbling, hurt feelings, and general frustration. This was replaced with positive 
statements about their own learning, their pride in achievement, the rise in test scores 
since we received a letter grade of A, their overall enjoyment with staff members with 
whom they made connections, and their feelings of becoming better teachers.

The rationale for asking teachers to place their names on their reflections made 
sense at the time. My intent was to continue this opportunity for reflection at the end of 
each year. I hoped that I could track the teachers who stayed remained at the school from 
one year to the next to see their growth. During the previous year reflection, during our 
pull out day, I did not have teachers identify themselves. So when I tried to determine 
how best to analyze their responses, I didn’t know which ones left the school, compared 
to those who stayed. This way I can track teachers’ growth.

I ended the year with a sigh of relief that we were finally on our way to becoming 
a constructivist school. It took five years to get here.
What I Learned:

*Creating a Constructivist School:*

Once staff stability became a reality, there were more players that could come to the table with a foundation of the philosophy of a constructivist school. We would articulate the premise for constructivism every chance we got so that teachers would start making the connections between what was happening and the constructivist beliefs. They were already doing so much of what is foundational that it was just a matter of restating and using authentic examples from work being accomplished by the staff. For example, if we were in a discussion with the teachers and trying to find a solution for something, I might respond with, “that’s a great way to problem solve, that was very constructivist, you stated what you already knew, applied it to what you are doing, and drew your own meaning from that connection.”

We laid the foundation, the cement was firm, and now it was a matter of building on that knowledge and understanding.

*Change:*

Change is a matter of perspective. The staff became more settled and focused when there were fewer new additions to the staff. When individual changes are made in such things as changing a room, the decision becomes more tolerable if it happens to everyone. Change for individuals became more frustrating than changes for most everyone. When adding an additional classroom for example, there is a ripple effect on all other rooms in that section of the school. That was more acceptable since everyone
was involved. If the individual or group own the change then any inconveniences that accompany that change were accepted.

In spite of the time involved, whenever a change becomes inevitable, and not negotiable, then it is important to bring every stakeholder to the same meeting, with everyone involved in the upcoming change. A full explanation surrounding the decision is presented. Those who are affected by the change would know well in advance of the meeting, and anyone who was part of the upcoming adjustment had an opportunity to understand the rationale behind the decision. I made phone calls to those who were not present and spent time explaining what happened and why. This provides everyone with the same information, avoids speculation, and allows everyone to move onto the task at hand.

There was a noticeable impact on all of us as a result of the tragic events at the Twin Towers in New York. I believe this gave us a chance to step back and evaluate what was important. It was time for that serious reflection.

*Leadership:*

I too had to step back from my intense focus on the academic tasks before me and recognize the serious emotional needs of everyone during, and following the days of 9-11. I remained sensitive to people’s needs, children, parents, and staff. This was no time to engage in academic discussions.

Time spent in classrooms watching students learn and teachers teach provides the only way to know whether or not teachers are making the transfer from what they think they know, to their ability to transfer that information to the instructional level.
Lesson plans, long reviled by teachers as an exercise in futility because teachers will say, “I never follow them anyway,” still provided valuable insight into what the teacher plans to do. Even if they don’t follow them to the letter, they are very revealing. I started reviewing the plans more in earnest this year, I wanted to look for those who were organized and were making the connections. As long as the plans are reviewed within the classroom, while the teacher is engaging the students, then immediate discussion can occur. I also spent more time looking at student assessments. They, too, tell the story of how much time teachers are spending analyzing student learning. Just because I reviewed the lesson plans and the assessment piece, it was foolish to assume that when teachers understand what they need to do that they actually do it. Examining both sets of information within the context of watching a teacher teach, can provide valuable feedback to the teachers. This also is a time that I can discuss constructivist learning with the teacher and once again reinforce the expectation that learning occurs, using a constructivist philosophy.

*Teachers as Leaders:*

Our increased number of Board Certified Teachers became very motivating for others. Our CRT continued to provide support for the teachers as they spent the year on their quest for NBC status, by demonstrating exceptional instructional skills. Once again, the process and discussion that occurred became infectious. Those who worked on the projects continued to share their discoveries about student learning. We all won throughout each individual’s year-long study.

The formation of the Literacy Council was an opportunity to continue to raise our
skills to a higher level, and associate with other professionals and experts. This was a time that a group could begin taking the lead. It was in its beginning stages and we were optimistic about the possibilities.

During the summer the Assistant Principal, Curriculum Resource Teacher and I joined the teachers as part of the Literacy Council. I found the money to purchase personalized golf shirts with the school emblem. As a group we stood out among the other schools. We felt very proud.

The week-long experience, provided literacy sessions we could attend, and time to meet as a group, to plan the direction we wanted the school to take in its focus on literacy. We also planned ways that we could provide support and service for the school. We agreed that we would continue our work in literacy by using teacher identified focus groups. The Literacy Council would become key presenters at school, although there may be other teachers who have special strategies that they would also present in group sessions, one time a month. This was a powerful group and had enormous potential to take the lead in the pursuit of better instruction in literacy.

Other interest groups began to form that provided opportunities for teachers to become leaders. One teacher willingly became the Science Chair. He had a high interest in science, would chair a committee, and make recommendations about the needs for teachers so that the instruction in science would be more comfortable for the teachers. He took his job seriously. He became a leader.

Another teacher assumed a leadership role in a significant project to promote student writing. She orchestrated a program that provided the opportunity for students to write a published book, as a classroom book, and again as an individual book. There was
an enormous amount of coordination required to provide teachers with the necessary information, responding to questions, meeting publishing deadlines. It was a challenging project for all 950 students.

She organized and coordinated the program without any requirement from me. The results astonished students, parents, and teachers. Every classroom had a hardback book, completely student authored, with copies purchased by families. Our Media Center provides a showcase for each student’s book and provides a check out system for all students to read each other’s books. She became a leader.

Year 6

Year six began with renewed energy and motivation. Following the work of last year we, as the Management Team, decided to use United We Lead as our theme for preplanning. Red, white, and blue decorations surrounded the media center. Once again, we arranged a professional looking environment for the teachers for the time we have together during preplanning. We reflected over the past year with our connections with the Rescue Team in New York. We were off to a great start.

The Management Team is a dream team to me. Each of our personality styles is so well matched that whenever we must plan activities and events, each person’s role and responsibility became almost automatic. We each know how the other thinks. We all agree on the philosophical position and compliment each other in our various approaches. Our preplanning activities were thematic, designed with the teacher in mind, and we carefully planned our time with the teachers with sensitivity to their time.

It was time to celebrate again. Six more teachers passed their National Board
Certification. We now have 12 teachers out of 52 who received this prestigious honor. Once again our numbers are far greater than any other school in the county. We also took additional pride in our Art teacher. She is the only Elementary Board Certified teacher in Art, in the county. Our teacher leaders were growing in numbers and it became a big point of discussion. Being a member of the National Board Certified Teachers is becoming part of the culture. We are so proud.

When school began, we were able to recognize the Literacy Council’s role in the school literacy plan. They were recognized and provided an opportunity to describe their role in teacher and parent support for the upcoming year. It was the Literacy Council who would decide on the assessments that the teachers agreed would be the foundational assessments at each grade level.

From the beginning of this year, our teachers began to take leadership roles. It was evident from the discussions held during our planning days. Throughout the year we continued to pull grade level teams for one day to plan, discuss, and reflect on ways to better serve our children. During each session I continued to transcribe the discussions on the computer so that when teachers left at the end of the day they had the complete dialogue about what everyone said, and most of what they did. The minutes were available for each of the teachers. I enjoyed this role. It placed me in the room, engaged in what is going on, and I often helped to facilitate the discussions with our CRT. Yet I was physically away from the group in order to project the feeling that I was not a dominant part of the group.

Each grade level kindergarten through grade five engaged in discussions that lead to problem solving. Regardless of the topic the emphasis always came back to our
philosophy. Are we teaching children to construct their own understanding?

We asked teachers to identify the areas on which they would like to concentrate for their professional growth during the year. Based upon the survey to teachers, it was obvious that the diversity of our staff would require a variety of opportunities to learn, based upon the individual needs of each teacher. As a result, teachers requested a Focus Group model, where small groups would concentrate on specific topics. This year we identified common areas of interest in grades K-5. Small groups selected areas to study, read, examine, and discuss, on the following topics:

(1) Technical skills associated with Guided Reading, working with students in small groups, according to each child’s ability level.

(2) The associated strategies to help students think and understand content material as well as how to embed skills within contextual understanding.

(3) The variety of experiences we could provide students as they develop skills and understanding when reading independently, for leisure, during a small group guided reading, or a larger group shared reading.

(4) Working with struggling readers.

(5) Teacher measurement of student progress and student self-assessment strategies.

We asked hard questions, such as:

(1) How can we embed skills and strategies for learning to achieve deeper contextual understanding?

   (a) Teachers drew from their experiences and determined they could accomplish this task through integration of the curriculum, well-designed
lessons, carefully developed assessments, and implementation of child-centered content. Students do not learn skills and strategies for understanding in isolation from their areas of study.

(2) How can we undertake individualized assessment within a classroom of children?

(a) Teachers viewed video tapes from New Zealand that demonstrated effective classroom management during instruction, while engaged in literacy activities. Discussion on implementation of the system provided insight into possible adaptations that would work.

(3) What resources are available to accomplish the standards?

(a) Any resource we can afford is provided for you. I’ll find the money somehow.

I must insert at this time, that publishing companies became much more responsive to school’s need to provide multiple levels of literature that was rich in a child-friendly, expository and narrative text. What a difference six years makes.

Each time we met with a grade level, more in-depth understanding occurred for each teacher. As new staff members joined our school, we were able to help them bond with a group. Spending the entire day together is quality time for everyone. It provides an environment that is relaxed and nurturing. This was the time to think about their own thinking. Teachers leave the pull out day with a strong sense of their own metacognition, and transfer that understanding into how children learn to read and think.

In keeping with the Analysis of Change Plan, our Curriculum Teacher developed a program for parent involvement called Partners in Print. This is a program that recruits
volunteers from our parents and the business community who come to the school and spend time reading with individual children. Our CRT provides a training program for them that gives basic skills in the teaching of reading. This opportunity to bring the community into the school is extremely successful for everyone involved, including parents, students, and teachers.

Our Guidance Counselor initiated an opportunity for parents to receive assistance in areas of child rearing. Her Loving Parent workshops were conducted both during the day and some evenings during the year. The topics were those generated by the parents in such areas as discipline, handling attention deficit children, and working with children in divorced families.

Our CRT and volunteer teachers provided a night where parents of students in grades three, four, and five, meet to learn about the Florida Competency Tests (FCAT). Parents find out about the testing format and expectations for the test. They experience responding to a few test items. Some parents refuse to take the test for fear of getting the answer wrong. In this way parents become sensitive to the issues surrounding the high-stakes testing that their children experience.

Math and Science nights are extremely popular with parents. Once again teachers take the leadership role in determining the concepts that will become part of parent and child scientific and mathematical understanding. We also identified key parents in our community who have a science background. They provided enriching opportunities for everyone. They established stations in the cafeteria where adults and children could experience engaging, hands-on science.

This year was also filled with a variety of learning experiences for the students
that brought to their world the need to understand our global cultures. We provided a way to bring many countries into the experiences of students as they continued to construct their own learning and develop their own conscious beliefs about the world around them. The war in Iraq and children’s opportunities to form their own conclusions based upon the information they read, heard, and discussed, created another example of constructivist learning.

More important, we wanted students to understand the global world and celebrate of the richness of our cultural diversity. The end of the year became the culmination of a several year programs. Our school could now boast 54 languages and cultures in our school. Two teachers of our English as Second Other Language Learners demonstrated the extent that leadership roles developed as we continued following our Analysis of Change plan.

The Celebration of Our Nations began when our teachers decided that we should recognize each of our cultures with their national flag. They wanted the flags to hang in the cafeteria where the teachers would create an environment in recognition of our cultural diversity. My support was critical to the success of this venture. This meant providing the funding needed. I found the money.

The next part of their project seemed simple on the surface. Provide each family in the school with an 8" X 11" felt square with the directions for each family to create a representation of the country of their heritage. They expected that out of the 650 families, 100 squares would return. Instead, 450 squares came back to the school. Many were carried carefully by the parent, as they proudly presented their heritage square to the teachers.
There were incredible works of art: handmade replicas of bride and groom ceremonial dress, from India; a montage of items from Cuba, tiny hats, fruit, people; miniature flags from Italy, Spain, and Brazil. Our teachers then planned on how they would be displayed and mounted. Family members were recruited by one of the teachers to accomplish these tasks. Celebrations were held. I described the ceremony:

The Orlando, Florida sun shone down on the children, parents, and staff that morning. With the war in Iraq a reality, 930 elementary students at Southwood Elementary School in grades K-5 celebrated the unity of many nations coming together in peace.

A strikingly beautiful fourth grade young lady, dressed in red, white, and blue stood before the crowd.

“Hello, my name is Jomarys Leon Rivera. I am a first generation American. That means my parents were not born in the United States. Both my parents were born in Puerto Rico.

To me being an American means many things. It means being proud of what you are and where you come from. It means working hard for all the opportunities that we have. It means standing together and supporting one another.

The United States is a special country because we stand for justice, liberty, freedom, and equality. Our country is made up of many different cultures living together in peace. Here we value a person’s character instead of their ethnic background.

When thinking about what being an American means to me, I think about
our heroes. I’d like to tell you about a very special hero. His name is Sergeant Jorge Leon Tobal. He is my dad. (She now places her father’s army cap on her head) smiles, and continues.

Right now he is in the Middle East protecting our freedom and helping others achieve theirs.

I feel very grateful to live in this great country and I am lucky that I can enjoy the rights and privileges that come with being an American.”

To the sound of each country’s national anthem, 49 children, representing most of the nations in the school, marched proudly down an aisle of classmates and parents. Children sat amazed that their friends carried flags of another nation. They waved at their classmates as each exchanged smiles of pride. Whispers of, “That’s the country I came from,” and, “I know him, he’s in my class, what a ‘cool’ flag.” In the sea of students, red, white, and blue clothing, or the traditional dress from native countries, created a kaleidoscope of color.

A guest vocalist sang, Proud to be an American. At that moment two majestic eagles flew overhead as if to acknowledge the freedom that existed below them in the hearts and minds of the children. Just as the refrains from the song began to end, and adding to the breathtaking symbolism, a beautiful white bird circled above the treetops. The picture of freedom and peace was instantly framed and became etched in the minds of all who gazed in wonder at this magnificent sight. Tears from parents, that flowed spontaneously, were tears of amazement, gratitude, pride, and joy.

For in those moments we once again realize the sacrifice that Gamers dad and others are making to ensure our safety and peace. Our children are our world and our
future.

A few weeks later an enormous quilt made its debut onto an entire backdrop of our stage. Each piece was proudly displayed and admired by the parents who came to view the works of art. Everyone was amazed at the variety of cultures and the artistic way that individual heritage was illustrated. It was a dramatic way to demonstrate our pride in our diversity.

In the true spirit of integration, Field Day around the World, followed. Each teacher rallied to help with the events. The physical education teachers carefully orchestrated the all day event for 950 students who participated in a series of stations, each providing a game from another country. To assist with the logistics, students from a prestigious private liberal arts college, and required to serve community service hours, came to our school. Most of them are in their twenties. At the completion of this experience each students wrote a reflection. One of the pieces summarized them all:

I think the experience that will last with me the longest was seeing children from a wide variety of backgrounds interact in a positive manner with each other. In the school district that I grew up in, there was hardly any diversity, which is unfortunate because it does not open students’ eyes to the diverse world in which we live. I really wish that I had gone to a school where everyone was so open and accepting, because I think that the children at Southwood are going to learn so much more from each other and each other’s cultures and background. They have 54 different cultures at this school. It really made me happy to see children of such a young age overlooking their differences and having a great time together. After seeing this I am going to make more of an effort to meet and
get to know people who are different from me because I think that I could learn a lot and form really great friendships.

Constructivist learning is not always about pure academics, as our students discovered in a project the entire school embarked upon. It is also about caring and sharing. Our students do not have the luxury of having everything they want. Yet, they were more than willing to bring to school their gently used books from home to give to another less fortunate school.

Our Curriculum Resource Teacher organized a book drive for an inner city school that had very few classroom library books. More than 4,000 books were collected and delivered to our adopted school by a busload of our students. Our students visited classrooms and celebrated the joy of reading, by reading from books they had published. The experience developed pride in the accomplishment of sharing, both in the form of books, and in the joy of reading.

Our standardized test scores were outstanding. The growth in each of our students was amazing. We earned a grade of A again. This year we went far into the A range. Ninety-two percent of our students write at a level 4 or above. Our math scores are among the highest in the county again.

During the year members of the Literacy Council and several volunteer teachers presented parent workshops in literacy called Partner’s in Print. This evening event pairs students with their parents in a variety of break-out sessions. This very popular experience for parents and students was presented to the Management Team as an idea from one of the teachers. We provided financial support, and encouraged participation by the Council Members. There was overwhelming support, as the children brought their
parents to listen to a brief explanation, by the teacher, of a reading strategy. At that point, the parent and child “practiced” the technique together. During the evening, parents and their children can select from two different sessions. At the completion of the last session, parents and children can go to the cafeteria, and select one book to take home.

Once more we ended the year with our Zen reflection time. Placed in a quiet environment, with time to write, teachers were engaged in their opportunity to describe their year with basically the same questions as last year.

(a) What did you learn this year that made you a better teacher?

(b) What did you learn that made you a better team member?

(c) Overall what were the best parts about this year?

(d) What do you look forward to for next year?

A complete review of the last two years, as teachers responded to the same questions, are analyzed in Chapter 4.

What I Learned:

*Creating a Constructivist School:*

Teachers were consistently placed in a constructivist environment to think, problem solve, and make decisions. Only by embedding a consistent philosophy, over a long period of time, will teachers internalize the culture of a constructivist philosophy. It is a long process that requires teachers to believe that through the process of constructivist learning, both they and their students become more effective libelers. Teachers see the results of high level questioning, probing for deeper understanding, making critical connections, and drawing conclusions for themselves and their students. Teachers learn to reflect, ponder, and analyze better ways to instruct and
assess student learning.

Change:

As our staff stabilized, and fewer teachers were new to the staff, change was not an issue any longer. Although we remained sensitive to new staff members who undergo the same issues of change that our teachers during the first three years experienced, we have more mentors and peer coaches to provide support.

The encouragement of risk-taking provided teachers the comfort level to explore new and interesting ideas. Horizontal teams became a concept that teachers continued to investigate and develop. Two horizontal teams were formed for year seven. The staff no longer sees this type of innovation as a threat or challenge. Each teacher knows they have the same opportunity to investigate new and different ideas, and change becomes part of the culture, when equated with innovation.

I don’t believe we will ever get past the inconvenience that exists when teachers must change their classrooms to a different place. Most teachers become entrenched in their classrooms and resist moving them. Placing teachers in portable classrooms, when they know the advantages of being in the same area as their team mates, will remain an ongoing problem as long as our population remains higher than our building capacity.

Leadership:

As the school leader I must remain true to the vision of developing a constructivist environment because of the overwhelming evidence in both our student performance and international research that supports this sound, viable, and productive philosophy.
In spite of the multitude of opportunities there are to become diverted from the important task of maintaining the vision, the integrity of the mission cannot be lost, or even compromised, for the sake of outside influences.

At this time of enormous pressure for students to perform on standardized tests, it became obvious that the constructivist philosophy served our students well. Teaching children to think constructively is a life long learning skill that transfers automatically to the testing situation that requires analysis. This gives teachers solid evidence, if they need it, to persist. Teachers need validation and recognition for their hard work.

Teaching constructively is a challenging process, and as a school leader it is necessary for teachers to receive the freedom they need to reach their goals. Constructivist environments require enormous latitude in support of how the teachers achieve high levels of accomplishment. The “what” part of student learning is clear, standards are articulated frequently, the “how” becomes very individualized for both students and teachers. Individualized learning must be supported, encouraged, and nurtured for all the members of the learning community.

*Teachers as Leaders:*

When teachers see they have valuable contributions to make to the school, we encourage them to take a leadership role. This serves the school and teachers. The more complex the school becomes, with the multitude of events and activities that we developed over the years, the more help we need to maintain the momentum. Teachers serve a valuable role. In this way we can continue to provide exciting and quality activities, events, and support for parents and other teachers.

Teachers see themselves as the leaders they became. This year our 12 National
Board Certified Teachers mentor others while reinforcing the strategies and concepts that support the constructivist philosophy. The prestige of completing the arduous task of completing the process and the feeling of accomplishment continues to motivate teachers. In year six, one additional teacher completed the process, while there are four more teachers embarking on the journey for year seven. Teachers state continuously that they would not be able to successfully complete the NBC experience if they were in a traditional, single textbook driven environment.

Members of the Literacy Council took on ever increasing leadership roles in supporting teachers and providing some of the newest ideas in instructional strategies. They continued providing focus group sessions for teacher in-service. During the course of the year the Council examined ways to develop another delivery model for teacher’s professional growth. This will take the form of Study Groups. At the beginning of year seven, teachers will identify specific areas where they would like to become more proficient, examine current professional literature such as a book or article, or discuss an instructional or assessment idea. Once again, this is a constructivist approach to learning, and becomes generated by the stakeholders.

As identified earlier, teachers became more involved each year. Groups and individual teachers found areas of interest and expanded their participation.

In conclusion:

I will respond to Dr. Shapiro’s often asked question, “Today I Learned.”

The implementation of the constructivist philosophy within the framework of an entire school will always be a work in progress. As the school leader I will stay the
course because I am passionate about my belief. I see it work for both students and teachers. I continuously ask teachers and students, “What are you learning?” Their answers speak to the understanding that is generated by thinking, problem solving, and making decisions together that produce positive results in a large elementary school. We continue to hone our craft as facilitators of student learning and reflective practice. We prepare our students to produce their highest level to work, understand, and process information. Our students generalize their learning to a variety of situations.

A community of life long learners, nurtured to reach their highest potential, develops in a school where a constructivist philosophy is the driving force. It takes time and patience. Once a constructivist environment is created, and all the stakeholders develop the tools to guide and teach children to construct their own meaning, there is no returning to a traditional, non-constructivist setting. Four teachers returned to Southwood this year, because they “couldn’t work in any other environment.”

The journey does not end here. The road will contain its twists and turns. Roads will always be under construction, and some barricades will spring up when least expected. However, we know the importance of charting the course, preparing a plan, committing to that plan, and being accountable for the outcome. We learned the value of creating a constructivist environment where we all became lifelong students. We learned to think constructively and will never return to our old beliefs about learning.

Don't turn from the delight
that is so close at hand!
Don't find some lame excuse
to leave our gathering.
You were a lonely grape
and now you are sweet wine.
There is no use in trying to
become a grape again.

*Jalaluddin Rumi, 13th century Sufi poet,*
*In The Arms of the Beloved (1997).*
Appendix 3

Informed Consent Description
Reflections of the Year

To the teachers of the Southwood staff:

Another part of the study of Southwood Elementary involves analyzing groups within the school, how they work together, the issues, concerns, and challenges. In addition, it is important to understand, from your perspective, what are your expectations for the rest of this year including better ways that the administration can help you. An opportunity to find out your perspective on the year could provide valuable information to improve our own school and perhaps help other schools who wish to develop a constructivist model.

Participation is voluntary, and individual names will not be included on your reflection papers. You may withdraw your participation at any time. Questions that will be used to focus your responses are found at the end of this letter. In this way you may have time to think about the questions ahead of time.

There will be a quiet atmosphere with quiet music, herbal tea, and dimmed lights. In that way you can relax while you are writing your reflections. I will review the questions again before you begin, but then I will leave and let you write. When you are through, please give the Curriculum Teacher your papers. When all of them are completed she will give them to me.

The reflections will become part of the total documentation for the study. As soon as this information is analyzed, along with the focus group discussion, and the study completed, you will receive a copy of the results.

If you have any questions, don’t hesitate to ask.

The questions you will be asked to reflect and write about are below. If you have additional ideas, that are not included, I value any additional comments you make.

1. How do you feel about this year and why? Describe your successes and challenges?
2. What did you learn that made you a better teacher?
3. What did you learn that made you a better team member?
4. What are you looking forward to next year?
5. In what ways can the administrators provide additional support to you?

Gratefully,
Leanna

Appendix 4

Teachers’ Written Reflections Questions

1. How do you feel about this year and why?
2. What did you learn that made you a better teacher?
3. What did you learn that made you a better team member?
4. What are you looking forward to next year?
5. In what ways can the administrators provide additional support to you?
Appendix 5

Request for Participation for Focus Group Interviews

To the members of the Southwood Staff:

The Principal is working on a six and one-half year study of Southwood Elementary. The purpose of her research is to determine the various aspects of the school that led us to the point where we are today—a constructivist school. As the curriculum Resource Teacher, I will conduct Focus Group discussions.

From this information it should be possible to more accurately evaluate the various aspects of what has occurred in the school, how we can continue to improve, and suggestions you may have about ways to continue providing a learning environment that creates a community of constructivist staff and students. An opportunity to hear from you lends authenticity to her study and could provide valuable information concerning how to create the quality school that you, as teachers, developed over the years. Perhaps other school attempting to create a change, especially to create a constructivist school, can benefit from your expertise.

Participation is voluntary, and individual names will not be included on the responses, nor identified within the study. You may withdraw your participation at any time. It is your insight that matters, not who makes the comments. Questions are provided for you to review on the next page and will guide the focus group discussions. Each group will be formed based upon the number of years employed at Southwood Elementary. For example, all teachers who have worked at the school for six years will be part of one group. Teachers who have worked at the school for three years will become part of another group, etcetera. The premise is that teachers may see issues form different perspectives depending on the number of years at the school. Participation will in no way affect your assessments, evaluations, or job status.

Each group will meet in the conference room on the dates identified. Please review the questions ahead of time as this will help focus the discussions. Each group should take from 30-45 minutes and require only one meeting. The discussions will be recorded on tape, to ensure that I haven’t missed important discussion points. At the end of the focus group I will transcribe the tape and return the transcriptions to you for editing. In this way, I will make sure that I capture your comment accurately. Then, you will be asked to return any changes back to me. At that time I will keep all the documents until the focus groups are complete. I will then turn the tapes and documents over to the Principal, who will review the transcripts and listen to the tapes to verify my transcriptions.

The Principal will combine the focus group information, along with your reflections, and her journals. The intent would be to find common patterns and themes that reoccur in each set of information. As soon as the data is analyzed,
you will receive a copy of the results.

Appendix 6

Focus Group Interview Questions:

1. What professional experiences have provided you with an understanding of constructivist thinking and learning for both you and your students?
2. What are your perceptions regarding the school moving toward constructivist approaches?
3. Based upon your perceptions how did this occur?
4. What roles do you perceive to have developed in this process?
5. What roles if any did you and/or your team perceived they play in this process?
6. What roles did you perceive this administrator play?
7. What organizational and structural changes do you perceive took place?
8. What still needs to be done to keep on moving in the areas of role, process, and structures?
9. How would you improve this process?
10. How would improve the structures?
11. What do you perceive has been the impact on your practice?
12. What do you perceive has been the impact on team collaboration?
13. What do you perceive has been the impact on your students?
14. What experiences do you perceive have provided you with the knowledge and experiences to take on leadership roles?
Appendix 6 Continued

15. What is your perception regarding how much decision making power you have regarding the implementation of the constructivist reform model and a constructivist philosophy?

16. What is the most important role that you perceive that you plan in maintaining a constructivist philosophy?

17. What do you think is the most significant problem in maintaining a constructivist philosophy?

18. Given the opportunity to stay at the school, what reasons keep you at Southwood?

19. (Only used with the returning groups of teachers). What are the reasons you chose to return to the school to teach, after you chose to go to another school?
Appendix 7

Transcriptions from tape recordings of focus group interviews with teachers
Example of one page from the transcriptions

Date: December 19, 2003
Place: Media Center
Time: 3:00-3:45
Group: Those teachers who have been employed at the research site since the 1997-1998 school year.
Interviewer: Curriculum Resource Teacher, identified as: CRT
Teachers identified as T1, T2, T3, T4, T5
Number of teachers in this group: five

CRT: Hi, everyone. Thanks for coming this afternoon. As you know from the letter you received, I am going to ask you some questions. Leanna (the Principal) is trying to find out how we have been able to create a constructivist school. It took all of us to get through some pretty interesting times to get where we are today. She knows that you have the experiences and might remember all the stuff that we have gone through, and all the things that helped create the school we have today. So, just be honest. You were given the questions ahead of time so hopefully, you have had time to think about some of the things that I’ll be asking.

You know that the only reason I am tape recording this is so I can remember everything you said, and not miss important stuff. I’ll give you back the transcript of this meeting so if I miss something or you want to change or edit anything that was said, I will make those changes before I give the final transcript to Leanna, although she will listen to the tape recordings herself. You have worked with her long enough to know that she is only interested in the information, and not who says what.

Are there any questions?

T1: Boy, do I remember some crazy things.

T2: Me, too. Boy, that day before school opened was a mess.

CRT: You’re right. But, let’s get started so I don’t keep you too long.

Here is the first question: What professional experiences have provided you with an understanding of constructivist thinking and learning for both you and your students?

T1: I remember when Leanna came into the pod with a laptop and asked us about our philosophy and our expectations that made me look at who I was and think about where I wanted to go. Then, she gave me a copy of what I said—I still have it. I knew then, that I’d better understand what I was all about with my teaching.
Appendix 7 continued

Transcriptions from tape recordings of focus group interviews with teachers

T2: There is no micro-managing, but, I have to know why I’m doing what I do, which make me think about why and how I do things. I feel pretty empowered.

CRT: Can anyone else think of something?

CRT--T3? I remember when nine of us received our gifted endorsements during the first and second year of the school. That gave us the strategies for helping students think at higher levels. Leanna told us early on that we were to teach each child as if they were gifted, but I didn’t really get it until we took those classes. And then we designed higher level activities. We thought of how better to raise students’ level of thinking. I thought it was giving us all a message when Leanna took the classes with us for those two years—then we got our gifted endorsement. I’m glad we did, so we don’t have to have pull-out programs for the gifted kids. It also gave us all a chance to get to know each other better.

CRT: That was important, I’d forgotten about that. Thanks for remembering that part—that’s interesting.

T1: Boy, did I learn a lot that first year.

T5: I can hardly believe everything we have done since that first year.

T4: You know, I think the summer writing teams we had where we designed our thematic units that were concept-based helped us create a curriculum and ownership of what we teach, and raise the level of thinking for me, then I could use it on my students. They were really a lot of work, but we have kept adding on to those concept-based units every year, and they really have been helpful.

T3: We have added a lot of brand new teachers. I like that we can mold them. Some of them don’t know how to teach any other way, than with a literature-based process. I didn’t even know what constructivist meant until last year. We put a word to describe what we do, now it makes sense.

T2: It’s hard at first to not have just one book to tell you what to do all the time. But, I couldn’t teach any other way now. It still is hard, because you have to think on your feet all the time. But, do you notice how the kids are so used to figuring things out? I just love it when the kids say, “I have another way to figure it out.” Now that some of our students have been with us for several years, it is a natural way that they think.
Appendix 8

Standardized Test Scores

Florida (FCAT)

Southwood Elementary

1999-2003

Scores are based upon the number of students who scored on an average of 3 or above on a scale of 1-5, according to the identified grade level.

Math – Grade 5

40% 1999
57% 2000
43% 2001
51% 2002
61% 2003 In 2003, the state average for math was 56%.

Reading – Grade 3 and 4

47% 1999
43% 2000
44% 2001
52% 2002
64% 2003 In 2003, the state average for reading was 60%.

Writing – Grade 4

70% 1999
77% 2000
78% 2001
91% 2002
92% 2003 In 2003, the state average for writing was 90%.
About the Author

The Principal-researcher is a veteran educator. Her career, subsequent marriage, and family, allowed her to work in a variety of schools and positions in her native Montana. She taught grade levels 1-6, including exceptional education students. During her 11 years as a principal she also held county level positions.

She moved to Orlando, Florida in 1987 where she was a reading resource teacher in middle school, a fifth grade teacher, an assistant principal and a principal. In 1997 she was appointed to open a new prototype elementary school that became the research site she studied for her PhD dissertation.

The author has two grown children, also in Orlando. Greg Isaacson, lawyer and co-chair of the English Department at Olympia High School, and Lara Isaacson McMahon, a travel corporation manager, whose son, the author’s grandson, Destin McMahon, attends fifth grade in the author’s school.