

Fall 2006

Integrated Phenomenological Study of Teachers'
Perceptions of a Professional Learning Community
Utilizing Senge'S Five Disciplines of a Learning
Organization

Margaret Zena Stockard

Follow this and additional works at: <https://digitalcommons.georgiasouthern.edu/etd>

Recommended Citation

Stockard, Margaret Zena, "Integrated Phenomenological Study of Teachers' Perceptions of a Professional Learning Community Utilizing Senge'S Five Disciplines of a Learning Organization" (2006). *Electronic Theses and Dissertations*. 219.
<https://digitalcommons.georgiasouthern.edu/etd/219>

This dissertation (open access) is brought to you for free and open access by the Graduate Studies, Jack N. Averitt College of at Digital Commons@Georgia Southern. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.

AN INTEGRATED PHENOMENOLOGICAL STUDY OF TEACHERS'
PERCEPTIONS OF A PROFESSIONAL LEARNING COMMUNITY UTILIZING
SENGE'S FIVE DISCIPLINES OF A LEARNING ORGANIZATION

by

MARGARET ZENA STOCKARD

(Under the Direction of Barbara Mallory)

ABSTRACT

The purpose of this study was to examine a high school's attempt at reform through implementing a component of a professional learning community to determine if Senge's five disciplines of a learning organization were present. The school was in the second year of implementing common planning time, one of the practices related to organizational learning.

This study used qualitative methodology and employed an integrated phenomenological design to investigate the perceptions and lived experiences of the core-subject teachers and department heads involved in common planning time at one high school. Participant observation, document and artifact collection, semi structured interviews, photographs and a survey were used to collect data. A data table was designed from all five data sources and blended to report the findings.

This study helped to illuminate teachers' stories of their lived experiences when trying to implement a professional learning community through common planning time. The findings suggest that this school showed evidence of improvement following their participation in common planning time. These improvements were noticeable in the areas of peer relationships, peer collaboration, and a focus on student improvement. Findings

also indicate that Senge's five disciplines were applied in the school on an individual basis, but not on an organizational level. Therefore, the researcher did not find evidence of a professional learning community. Themes within the dimensions, however, were identified, including administrative support, self-reflection, common planning, collaboration, curriculum/student achievement, and barriers. The findings suggest the importance of the role of leadership, and that a structured school wide interdepartmental common planning time will create a structure that supports the whole organization. Findings also revealed barriers to the initiative that included teacher resistance, time, and changing demographics.

Results of this study point to the need for teachers, administrators, and districts to receive training in the five disciplines of personal mastery, mental models, team learning, shared vision, and systems thinking before implementing a professional learning community. As a result of this study, recommendations are offered for restructuring the framework and beliefs to better meet the needs of high schools in the process of implementing professional learning communities.

INDEX WORDS: School reform, Learning organizations, Professional learning Communities, Suburban high schools, Changing demographics, Common planning time

AN INTEGRATED PHENOMENOLOGICAL STUDY OF TEACHERS'
PERCEPTIONS OF A PROFESSIONAL LEARNING COMMUNITY UTILIZING
SENGE'S FIVE DISCIPLINES OF A LEARNING ORGANIZATION

by

MARGARET ZENA STOCKARD

B.S., BLUEFIELD STATE COLLEGE, 1964

M. ED., MARYGROVE COLLEGE, 1972

ED. S., EASTERN MICHIGAN UNIVERSITY, 1994

A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in

Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

STATESBORO, GEORGIA

2006

© 2006

Margaret Zena Stockard

All Rights Reserved

AN INTEGRATED PHENOMENOLOGICAL STUDY OF TEACHERS'
PERCEPTIONS OF A PROFESSIONAL LEARNING COMMUNITY UTILIZING
SENGE'S FIVE DISCIPLINES OF A LEARNING ORGANIZATION

by

MARGARET ZENA STOCKARD

Major Professor: Barbara Mallory

Committee: Michael D.
Richardson
Fred Page

Electronic Version Approved:
December 2006

DEDICATION

This dissertation is dedicated with a deep sense of gratitude and appreciation to those who taught me many lessons about life, love, success, honesty, and truth; my late grand-parents, James and Callie Hodge, my parents, Eva and Harold Walton, my uncle and aunt, Everett and Elsie Hodge, and my cousins, Freddie and Brenda. Thank you for teaching me those lessons that have encapsulated and guided me through life's journey.

ACKNOWLEDGMENTS

It is with a deep sense of gratitude and appreciation that I acknowledge all those who assisted and supported me throughout my studies. Heartfelt and special thanks are given to Dr. Barbara Mallory, chair of my committee, who provided guidance, insight, and counsel for this project. I am deeply grateful to Dr. Michael D. Richardson, friend, methodologist, and mentor, for his guidance, support, and insight. I am also grateful to Dr. Fred Page and Dr. James Burnham for their suggestions and assistance as members of my committee.

Warmest love and affection go to my family for their confidence, and for the support and love they have shown throughout the process; my husband Phillip, my daughters, Victoria and Lezlie; and my son Daniel. I love you all. I also acknowledge my friends and cohort group; Harvey Franklin, Victoria Sanders, Sandra Jones, and Lena Travis. Thank you for your motivation and support when it would have been easier to give up.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	7
LIST OF TABLES	11
LIST OF FIGURES	12
CHAPTER	
1 INTRODUCTION	13
Introduction	13
Statement of the Problem	21
Research Questions	21
Conceptual Framework	22
Significance of the Study	23
Procedures	24
Limitations.....	27
Definition of Terms	27
Summary	29
2 REVIEW OF RESEARCH AND RELATED LITERATURE	31
School Reform.....	31
The Learning Organization	55
Professional Learning Communities	68
Summary	75
3 METHODOLOGY	79
Introduction	79

	Research Questions	80
	Methods	80
	Data Collection.....	88
	Data Table	102
	Research Bias	102
	Summary	102
4	REPORT OF DATA AND DATA ANALYSIS	104
	Introduction	104
	Findings	105
	Summary of Findings	111
	Responses to Research Questions	111
	Research Questions 1 and 2.....	112
	Research Question 3.....	163
	Overarching Research Question.....	185
	Summary	186
5	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....	187
	Introduction	187
	Discussion of Findings	189
	Research Question 1	191
	Research Question 2.....	204
	Research Question 3.....	206
	Barriers	208
	Conclusions	209

Implications	214
Recommendations	215
Summary	216
Concluding Thoughts	217
REFERENCES	220
APPENDICES	235
A PROTOCOL FOR INTERVIEWS	236
B IRB APPROVAL LETTER.....	239
C COVER LETTER TO PARTICIPANTS.....	241

LIST OF TABLES

	Page
Table 1: A Qualitative Item Analysis – An Integrated Phenomenological Study of Teachers’ Perceptions of a Professional Learning Community Utilizing Peter Senge’s Five Disciplines of a Learning Organization	94
Table 2: Wyckoff’s Discipline Matrix	96
Table 3: A Quantitative Item Analysis - An Integrated Phenomenological Study of Teachers’ Perceptions of a Professional Learning Community Utilizing Peter Senge’s Five Disciplines of a Learning Organization	97
Table 4: Student Demographics 2004-2005	108
Table 5: Student Demographics 2005-2006	108
Table 6: Percent of economically disadvantaged students from 2000-2005	109
Table 7: Correlation of Learning Organization Inventory Items to the Five Disciplines of a Learning Organization	112
Table 8: Senge’s Five Disciplines – Personal Mastery	119
Table 9: Senge’s Five Disciplines – Mental Models	130
Table 10: Senge’s Five Disciplines – Team Learning	143
Table 11: Senge’s Five Disciplines – Shared Vision.....	155
Table 12: Senge’s Five Disciplines – Systems Thinking.....	161
Table 13: Barriers	171
Table 14: Data Table – Professional Learning Communities.....	177

LIST OF FIGURES

	Page
Figure 1: Conception of the factors contributing to the development of professional learning communities	22
Figure 2: SENGE’S FIVE DISCIPLINES – TEACHER SURVEY RESULTS: Personal Mastery	118
Figure 3: SENGE’S FIVE DISCIPLINES – TEACHER SURVEY RESULTS: Mental Models	129
Figure 4: SENGE’S FIVE DISCIPLINES – TEACHER SURVEY RESULTS: Team Learning.....	142
Figure 5: SENGE’S FIVE DISCIPLINES – TEACHER SURVEY RESULTS: Shared Vision	154
Figure 6: SENGE’S FIVE DISCIPLINES – TEACHER SURVEY RESULTS: Systems Thinking	160

CHAPTER 1

INTRODUCTION

Introduction

Since the introduction of A Nation at Risk in 1983, educators and government leaders have encountered a great number of reports considering the status of America's public schools. A Nation at Risk sparked an educational reform movement toward high standards and accountability (Slavin, 2001). In the early 1980s, as a solution, systemic reform theory was introduced and was based on the belief that all levels of the educational system must be aligned (Berends, 2004). This restructuring effort, according to Berends, was unlike other attempts at reform because the focus was on making system-level changes rather than changing only a part of the educational process. Quick fixes as solutions to the dilemmas in education seem to have been the norm associated with past failures (Hord, 1997).

In the late 1980s and 1990s, this systematic reform resulted in the standards movement. The aim of the standards movement was to improve instruction by changing the entire educational system (Berends, 2004). More required testing in these emerging accountability systems at the state and district levels put pressure on school personnel to understand and respond to data on student performance (Mason, 2003). According to Mason, school administrators looked for ways to increase the capacity of their staffs to use this data to improve instruction and learning. Because of challenges and failures of past school reform initiatives, researchers began to pay attention to the cultural and human side of change (Cibulka & Nakayama, 2000).

One researcher, Michael Fullan (2002), studied the cultural and human aspects of change. According to Fullan (2002), the key to successful change is the improvement in relationships between all involved in the school reform process and not simply the imposition of top down reform. Fullan posits that educational change is based on creating conditions to develop the capacity of both organizations and individuals to learn. Therefore, one approach to school improvement was that schools were being encouraged to become learning organizations by using collaboration, inquiry and continuous improvement. (Mason, 2003). Specifically, schools were being encouraged to focus on the organizational culture that characterizes the way people deal with each other (Owens, 2004).

Culture was a key factor in determining whether school improvement was possible (Deal & Peterson, 1999). Deal and Peterson believed that improvement would not occur if the culture did not support and encourage reform. Cummings and Worley (2005) list four major elements of organization culture that exist at different levels of awareness: artifacts; norms; values; and basic assumptions. Cummings and Worley describe culture as a process of social learning, an outcome of prior choices and experiences, and a foundation for change. Culture is deeply rooted in the organization's history, and is thought of as the glue that holds things together; or as the glue between people that lets a group know how things are done in that school (Goldring, 2002). Additionally, Senge (2000) says that in successful schools "a nurturing professional community seems to be the container that holds the culture" (p. 326).

The culture of organizations develops over time on the basis of institutionalized norms and assumptions acquiring deep and significant meaning (Owens, 2004). Every

school has a distinct culture that is a critical element of school improvement and has a tremendous influence on life and learning (Barth, 2002; Patterson, 2000). A school's culture must be a healthy one because one of the challenges of instructional leadership is to change a toxic school culture into a healthy school culture with more desirable qualities (Barth). School reform initiatives intrude upon the existing norms and assumptions of schools, students, and staff by disrupting the culture with programs that reflect new assumptions, beliefs, norms and values about teaching and learning (Cibulka, & Nakayama, 2000). Therefore, schools may not improve because educators will embrace a new program or strategy without laying the groundwork for successful implementation, and then jump from one idea to the next without linking this program to the school's unique culture (Tobergte & Curtis, 2002). The culture of a school is affected, according to Fullan (2002), when new programs or strategies create changes in policies, procedures and rules. These changes are called first-order change (Fullan).

First-order change is incremental. Incremental change "fine-tunes the system through a series of small steps that do not depart radically from the past" (Marzano, Waters, & McNulty, 2005, p. 66). First-order change is also an extension of the past; within existing paradigms; consistent with prevailing values and norms; focused; bounded; linear; marginal; implemented with existing knowledge and skills; problem and solution oriented; and implemented by experts (Fullan, 2002; Marzano, et al.). An almost exclusive focus on first-order change is part of the reason for the failure of most change initiatives (Fullan).

In contrast, second-order change is anything but incremental. Second-order change is complex, according to Marzano, Waters, and McNulty (2005). Second-order

change involves a dramatic departure from what is expected. It is a break with the past; outside of existing paradigms; conflicted with prevailing values and norms; emergent; unbounded; nonlinear; a disturbance to every element of a system; requires new knowledge and skills to implement; neither problem- nor solution-oriented; and it is implemented by stakeholders (Fullan, 2002; Marzano et al.). Clearly, second-order change is deep change that alters the system in fundamental ways that require new ways of thinking (Marzano et al.). Yet, schools tend to approach persistent problems in the same manner year after year. For example, the problem of the achievement gap has persisted for over a decade (Marzano et al.). This has been a focus of educational reform since the mid-1960s. Still, the problem persists. This may explain that educators must conceptualize problems differently, conceive new strategies and develop new ways of thinking about reform (Marzano et al.).

Any type of reform will fail unless it is meaningfully linked to a school's culture which is critical to understanding the dynamics behind any organization (Deal & Peterson, 1999). According to Goldring (2002), culture is not a constant; values and norms change as events affect the population involved. And until they are involved in the process of reform, Michael Fullan (2002) believes that people do not develop new understanding. According to Fullan, collegiality provides the best starting point in the process of school reform, and teaching needs to be seen as a collective rather than an individual enterprise.

Typically, teachers have worked in environments of isolation. Those environments are broken down when professional learning communities use collaborative teams as a tool to break down those barriers of isolation (DuFour & Eaker, 1998).

DuFour and Eaker believe that collaborative teacher teams are one of the key building blocks of learning communities. The professional learning community is an approach to school reform that focuses on the need to address second-order changes that speak to ways to transform the value and belief systems that add to a school's culture (Olivier, Cowman, & Pankake, 2000). The professional learning community concept is based on shared leadership and a focus on common values. Louis, Kruse and Marks (1996) describe a school learning community as "a more inclusive support of a whole school: an entire faculty comes together around meaningful, shared issues" (p. 180). A professional learning community is a community for learning where there is a culture of collaboration that engages the entire group of professionals within a supportive community (DuFour, 2004). The professional learning community provides a setting that is rich and stimulating, where participants can interact, test their ideas, challenge their inferences and interpretations, and process new information with each other (Berlinger-Gustafson, 2004; Huffman & Jacobsen, 2003). Lasting school improvement cannot occur if the system is not helping all people, at all levels to work on building learning organizations (Fullan, 2002).

The root of the learning organization concept can be traced back to the human relations movement in business, which led to dramatic ways of relating in the work place, and to James MacGregor Burn's transformational leadership (Owens, 2004), which influenced Peter Senge's "learning organization" in his book The Fifth Discipline (Thompson, Gregg & Niska (2004). Many articles and books have been published that show a parallel between business and education in the United States. The education system has been compared to various business systems (Arif, Smiley, & Kulonda, 2005).

Senge first applied the definition of the “learning organization” to business and defined it as, “an organization that is continually expanding its capacity to create its future” (Senge, 1990, p. 14). According to Senge’s five disciplines, the keys to achieve a learning organization are systems thinking, personal mastery, mental models, shared vision, and team learning. “Systems thinking is the conceptual cornerstone that underlies all five of the learning disciplines” (p. 69).

Senge defines the five learning disciplines as:

- Systems thinking – a theoretical structure and a body of knowledge
- Personal mastery – a special level of proficiency whereby an individual becomes committed to his/her own life-long learning
- Mental models – acutely embedded assumptions, generalizations or images that influence how one understands the world and how one takes action
- Shared vision – the capacity to hold a shared picture of a future that seeks to bind people together sharing a common identity
- Team learning – begins with dialogue and enters into a free flow of thinking together that allow the group to discover insights that would not be attained individually

Members of the education community became intrigued with the idea that schools should be about adult learning as well as school learning (Thompson, Gregg, & Niska, 2004). In response to educators’ interest in his work, Senge wrote Schools that Learn in 2000, addressing issues specifically related to schools (Newcomb, 2003). As part of school improvement, schools became engaged in building collaborative work

cultures, and consequently, the term “learning organization” came to be referred to as professional learning communities (DuFour, 2004).

From A Nation at Risk to the No Child Left Behind Act, America’s schools have been faced with the challenge of being more accountable for student achievement. The accountability movement led to the reauthorization of the Elementary and Secondary Education Act (ESEA), which is known as the No Child Left Behind Act of 2001. This event called for the design and implementation of various large-scale changes (Cibulka & Nakayama, 2000). Although researchers indicated that few have sustained support in the implementation phase, some schools are steadily changing to meet the demands of their learners (Cibulka & Nakayama). One strategy that has gained momentum is the creation of professional learning communities: “There is growing evidence that the best hope for significant school improvement is transforming schools into professional learning communities” (DuFour & Eaker, 1998, p. 17). Thus, the challenge for educators is to create a community of collaboration and commitment – a professional learning community.

It is true that most educators have not been trained to initiate, implement, and sustain change, due to the fact that conflict has been seen as something to avoid rather than something that is a necessary part of the change process (Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000; & DuFour & Eaker, 1998). Senge et al. (2000) add to the idea that professional learning communities are action oriented and value opportunities to learn from their mistakes. Senge refers to one hallmark of the learning community as one of openness and improvement. In the learning community, all are encouraged to take risks and try out new ideas. The real issue then is to identify the

model for change that offers the best hope for significant school improvement (Senge et al., 2000, p.10).

“Buckminster Fuller used to say,” writes Senge, “that if you want to teach people a new way of thinking, don’t bother trying to lecture or instruct them. Instead, give them a tool, the use of which will lead to new ways of thinking” (Senge et al. 2000, p. 331). The tools of which Senge speaks are the five disciplines described in his book The Fifth Discipline. Senge defines a discipline as “a body of theory and technique that must be studied and mastered to be put into practice. A discipline is a developmental path for acquiring certain skills or competencies” (Senge, 1990, p. 10). These disciplines break down the walls of teacher isolation and encourage collaboration and team learning.

When a group of people are focused on aspiration, they will generate change because they desire to do so, not just because it is mandated (Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000, p. 332). In order to create this change, educators need to look at Senge’s model of a learning organization, especially the fifth discipline, systems thinking. According to Senge (1990), systems thinking is a conceptual framework for an organization; a body of knowledge and tools that have been developed over the years to make patterns clearer and to help organizations see how to change them effectively.

A system is composed of many separate and individual systems. A high school is composed of many separate and individual departments. Systems thinking looks at the organization as a whole, the way we look at a flower. Each petal is beautiful, but the real beauty is in looking at the entire flower. The whole of the flower exceeds the sum of its parts (Senge, 1990). Systems thinking involves the notion that change and organizational

learning can take place only when skills in each of the other four disciplines are applied by every member of the organization. Systems thinking fuses the other four disciplines into a coherent whole (Senge, 1990).

Statement of the Problem

With the publication of A Nation at Risk in 1983, the American public was warned that the educational system in the United States was inferior to education in other nations. Since that time, there has been a constant call to restructure schools. Over twenty years of effective schools research concluded that effective schools have a school culture of shared values and norms that guided the staff and students in the direction of successful teaching and learning. A concept of five disciplines based on shared leadership and common values was one method of school reform described by Peter Senge in The Fifth Discipline (1990).

A review of the literature indicated that very few research studies have been conducted on existing professional learning communities. Some of the literature described professional learning communities as they could exist. If professional learning communities were being used in an effort to improve schools, then a closer examination of existing professional learning communities was warranted. The researcher sought to identify how Senge's five disciplines were applied in one high school to illustrate a professional learning community.

Research Questions

The primary research question guiding this study was: How are Senge's five disciplines of a learning organization applied in one selected Georgia high school to

illustrate a professional learning community? The following secondary questions guided the study:

1. What are teachers' perceptions that Senge's five disciplines exist within the school?
2. What evidence of Senge's five disciplines demonstrate that these disciplines are used in this school?
3. What is the evidence that a professional learning community exists at this school?

Conceptual Framework

This study is grounded in the concept of Senge's five disciplines of a learning organization (Senge, 1990). As a method of reform, Senge's five disciplines may provide the structure necessary to build a professional learning community within a school.

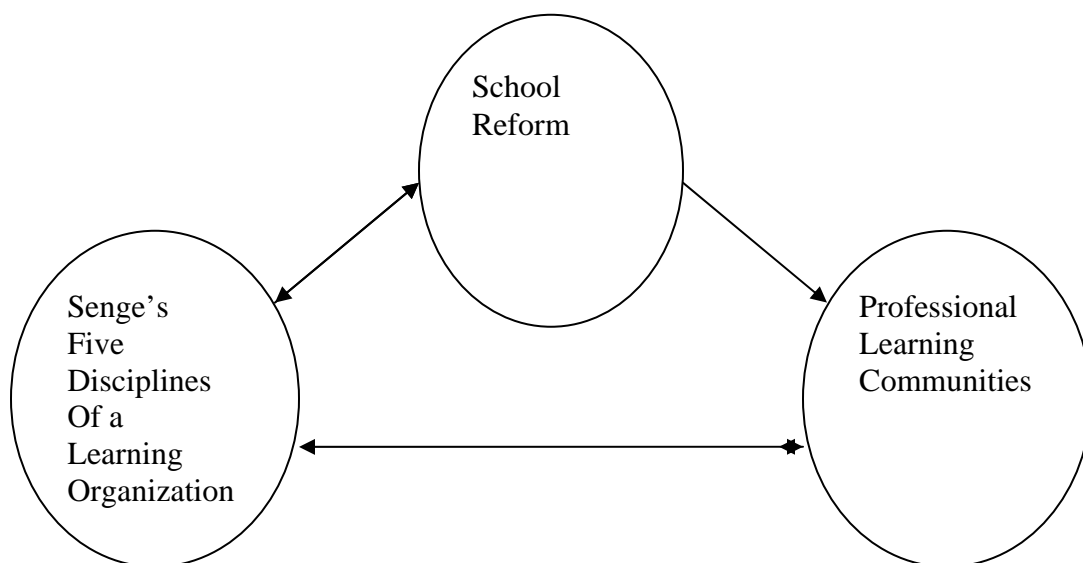


Figure 1. *Conception of the factors contributing to the development of professional learning communities*

Significance of the Study

Federal and state policy makers, educators, parents and the community consider collaborative efforts between family, school and community important for the improvement of schools and critical to higher student achievement. This study was important because it yielded results that have value for both educational practitioners and educational researchers who are interested in advancing processes related to second order changes, as described by Michael Fullan (2002) and Olivier, Cowman, and Pankake (2002), that affect the culture, structure, roles and responsibilities within the schools. Additionally, the findings added knowledge that may be beneficial to other school districts and schools in the process of developing professional learning communities.

There have been studies that indicated the value of professional learning communities to both students and staff (Stein, 1998; Hord, et al. 1999; Huffman & Jacobson, 2003; Strahan, 2003; Hipp, 2003; Meehan & Merrill, 2002; & Mason, 2003); however, there is little research on the processes, outcomes and effects of learning organizations in schools. Research suggests that applying and understanding Peter Senge's five disciplines of a learning organization to a professional learning community could be a positive benefit for both staff and students (McIlvain, 1999; Kohn, 2000; Seaford, 2003; Taylor, 1999; Kelly, 2000; & Greene, 2000). Therefore, this study addressed how Senge's five disciplines of a learning organization were applied to illustrate a professional learning community in one selected high school in Georgia.

This research of a school's development into a professional learning community may contribute to the knowledge base, offer insights for others involved with schools, and assist other schools to become professional learning communities. The information

may strengthen the school district itself by providing information to others in the district. The findings may add knowledge about professional learning communities that may be beneficial to districts, researchers, and educators in advancing processes related to changes that affect the culture, structure, roles and responsibilities within high schools.

The researcher's findings had significance in many areas. First, the findings may be significant for both participants and educational researchers. Second, the findings may allow educators to learn how the culture of a high school and the interactions within this culture can affect the professional learning community. Third, the findings may assist educators and researchers in understanding the extent to which Senge's five disciplines of a learning organization exist within professional learning communities. Last, students in principal preparation programs may gain insight into implementing professional learning communities.

Procedures

Research Design

This study was designed as a qualitative research investigation in the phenomenological tradition. The qualitative approach was selected because it was the best method that would allow the researcher to answer the questions about the nature of the phenomenon and to describe the phenomenon from the participant's point of view (Leedy & Ormrod, 2005). According to Denzin and Lincoln (2003), qualitative research means different things in different moments in the history of qualitative research; however, "it is a situated activity that locates the observer in the world" (p.4).

The researcher chose the qualitative approach for many reasons. First of all, it serves to describe by revealing the nature of certain situations, settings, processes,

relationships, systems or people. Secondly, the qualitative approach serves to interpret by enabling the researcher to gain new insights about this particular phenomenon, develop new concepts or theoretical perspectives about the phenomenon, and/or discover the problems that exist within the phenomenon. It also serves to verify by allowing the researcher to test the validity of certain assumptions, claims, theories, or generalizations within real-world contexts. Finally, the qualitative research approach serves to evaluate by providing a means through which the researcher can judge the effectiveness of particular policies, practices and innovations (Leedy & Ormrod).

This study utilized phenomenological methodology because the term phenomenology refers to a person's perception of the meaning of an event, as opposed to the event as it exists external to the person (Leedy & Ormrod, 2005). The researcher recorded details about the context surrounding the professional learning community, including information about the physical environment and any historical, economic, and social factors that had a bearing on the situation (Leedy & Ormrod, 2005). The teachers' perceptions of the implementation of the professional learning community were important to understanding the application of Senge's five disciplines.

The researcher's purpose revolved around providing in-depth insight into the application of Senge's five disciplines in one selected school in Georgia. By examining the school from a holistic approach, the researcher obtained a clearer picture of what was occurring in a school with a professional learning community as part of the school's reform.

Population

Morris High School (a pseudonym) was chosen because it is a high school in a school district that is implementing a professional learning community by following one of the five disciplines-team learning in the process of common planning time. The participants in this study were fifty-four core subject teachers who were invited to participate in a survey and five department heads, who agreed to sit down with the researcher for an interview.

Data Collection

The main means of data collection consisted of a combination of observations, surveys, interviews, photographs, and documents and artifacts (Leedy & Ormrod, 2005; Stake, 1992). The researcher used semi-structured interviews (Leedy & Ormrod). In addition, the researcher also gathered a variety of important documents, such as, written reports and minutes of school board meetings (Leedy & Ormrod).

Data Analysis

According to Denzin and Lincoln (2003), the researcher must develop a system for coding and categorizing the data. They believe that there is no one best system for analysis. The researcher combined analysis while collecting data, and did a more formal analysis after the data collection was complete.

Leedy and Ormrod (2005) suggest the following steps:

- Organize the data, perhaps using index cards, folders or computer database
- Peruse the entire data set several times to get a sense of what it contains as a whole
- Identify general themes or categories and classify each piece of data accordingly
- Integrate and summarize the data

To minimize the extent to which the researcher's prior experiences, expectations and assumptions would enter into the analysis, the researcher made an effort to collect different kinds of data related to this particular phenomenon (e.g., observations, interviews, photographs, and documents as examples of personal mastery in the classroom).

Limitations

This study was confined to one school in one school district. The number of participants interviewed limited the findings. Interviewing only department heads provided a unique perspective. Responses from the personnel were voluntary.

Definition of Terms

Artifacts – Data collected, such as, school memos, school records, newspaper articles, minutes from faculty and committee meetings, photographs, and other works of art (Leedy & Ormrod, 2005).

Bracketing (epoche) – According to Moustakas (1994), bracketing, or identifying and setting aside one's own assumptions, biases, presuppositions and values, is a way to suspend judgment about what is real in order to allow unbiased interpretation of data and to clear the way for new insights into the human experience.

Learning organization – “organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (Senge, 1990, p.3).

Mental models – “Deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action” (Senge, 1990, p.8).

Personal mastery – “Personal mastery is the discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively” (Senge, 1990, p.7).

Phenomenological research – “Describes the meaning of the lived experiences for several individuals about a concept or the phenomenon” (Creswell, 1998, p. 50).

Professional learning community – A group of teaching professionals at a school who manifest characteristics of shared mission, vision and values; collective inquiry; collaborative teams; action orientation and experimentation; continuous improvement; and results orientation (Dufour & Eaker, 1998).

Qualitative research – A qualitative study is used to answer questions about the complex nature of phenomena with the purpose of describing and understanding the phenomena from the participant’s point of view. Qualitative research seeks a better understanding of complex situations (Leedy & Ormrod, 2005).

School culture – The sum of the values, cultures, safety practices, and organizational structures within a school that cause it to function and react in particular ways. It refers to the way teachers and other staff members work together (McBrien & Brandt, 1997).

Semi-Structured interview – This type of interview uses a schedule of questions that are usually open, and it is permissible to stray from the subject and ask supplemental questions. This method offers the researcher flexibility in gathering information from the participants (Leedy & Ormrod, 2005).

Shared vision – “The practice of shared vision involves the skills of unearthing shared ‘pictures of the future’ that foster genuine commitment and enrollment rather than compliance. In mastering this discipline, leaders learn the counterproductiveness of trying to dictate a vision, no matter how heartfelt (Senge, 1990, p.9).

Systems thinking – “A conceptual framework, a body of knowledge and tools that has been developed over the past fifty years, to make the full patterns clearer, and to help us see how to change them effectively” (Senge, 1990, p. 7).

Teacher nostalgia – “The major form of memory among a demographically dominant cohort of experienced older teachers. Unwanted change evokes senses of nostalgia” (Goodson, Moore & Hargreaves, 2006, p.42)

Team learning – “The capacity of members of a team to suspend assumptions and enter into a genuine ‘thinking together’” (Senge. 1990, p.10). “Team learning is the process of aligning and developing the capacity of a team to create the results its members truly desire” (p.236).

Summary

This chapter described the background and purpose of the study. Senge’s five disciplines of a learning organization, the professional learning community concepts, and a brief overview of reform efforts were presented to lay the groundwork for factors contributing to the development of professional learning communities. The accountability that educators face today due to the No Child Left Behind Act has put pressure on school personnel to respond to the data on student performance. The frequent failures of school reform initiatives have caused educators to pay attention to relationship building, and recognize that the perceptions and values of teachers is critical to student achievement.

Many reform efforts in the past failed because educators would embrace a new program without laying the groundwork. Researchers report that any type of reform will fail unless it is linked to a school's culture which requires second-order change. That is why schools are encouraged to become professional learning communities by using collaboration, inquiry and continuous improvement.

Researchers found that school personnel must understand and practice Senge's five disciplines of a learning organization in order to become a true professional learning community. The literature on professional learning communities to this point is insufficient to determine the extent to which Senge's five disciplines exist in selected high schools.

CHAPTER 2

REVIEW OF RESEARCH AND RELATED LITERATURE

A review of school reform, learning organizations, and professional learning communities provided a basis for this study. Research related to business and the corporate world, and learning organizations, lay the foundation for how professional learning communities evolved. The purpose of this literature review was to explore the history of school reform in the United States from the early twentieth century to present day; to explore a history of learning organizations; and to explore how the learning organization evolved into the professional learning community as a model of school reform.

School Reform

The Progressive Period 1890-1950

School reform in the United States has a long, complex history. In fact, school reform has been ongoing since the mid 1890s where creating new methods and structures that depart from the traditional public school occurred with regularity (Ravitch, 2000). In the 1900s, scientific management theories and patterns of hierarchical authority were established in business as well as in the schools (Arif, Smiley, & Kulonda, 2005). This first period of school reform, from the 1890s until the 1950s is known as the Progressive Period (Tyack & Cuban, 1997). The Progressive Period is the only reform period in which schools changed in response to students according to Deschenes, Cuban and Tyack (2001).

When the United States moved from an agricultural society to an industrial revolution, the schools were used to prepare students for factory work, and public school

management was influenced by the scientific method (Owens, 2004). In the 1900s, Frederick Taylor's philosophies, and Henry Ford's assembly line applications, led schools into a "doing to" method of education (Langford, 1995). The management and production methods that were successful during this time in the workplace seemed to also work well in the public schools (Langford).

Classical organization theory evolved during the first half of the twentieth century and represents the merger of scientific management, bureaucratic theory, and administrative theory (Jones & George, 2006). Frederick W. Taylor, one of the first people to study the behavior and performance of people at work, is best known for defining the techniques of scientific management (Jones & George, 2006). As a manager, Taylor (Jones & George, 2006) defined four principles he believed would increase efficiency in the workplace. (1) Study the way workers perform their tasks, gather all the informal job knowledge that workers possess, and experiment with ways of improving how tasks are performed. (2) Codify the new methods of performing tasks into written rules and standard operating procedures. (3) Carefully select workers who possess skills and abilities that match the needs of the task, and train them to perform the task according to the established rules and procedures. (4) Establish a fair or acceptable level of performance for a task, and then develop a pay system that provides a reward for performance above the acceptable level.

Although these four principles were not scientific, they brought order to the workplace at a time when manufacturers wanted to make the business more profitable by improving the way work was organized (Holt, 2001). According to Owens (2004), Taylor was the first to think of motivation in the workplace as being important. Taylor believed

that managers were responsible for the organization of jobs and argued that instead of leaving this responsibility to the judgment of the workers, the workers should be told what to do and how to do it (Holt). Thus, those who organized the work became separate from those who did the work. The world of management had begun (Holt, 2001).

“Scientific management taught that it was important to hire the right people, train them well to work with the machine, and keep the job requirements within the physical limits of the individual” (Owens, 2004, p. 88).

Taylor’s principles brought results; productivity of American business increased dramatically, and educator’s felt that applying Taylor’s principles to America’s schools would also be rewarding (Holt, 2001). At first, “the emphasis was on cost efficiency-on conserving physical resources through management of inventory” (Holt, p. 146). But Franklin Bobbitt, a professor of educational administration at the University of Chicago from 1909-1941, felt that the entire public school curriculum needed Taylor’s precepts (Holt). Bobbitt was the first American educator to: advance the case for the identification of objectives as the starting point for curriculum making; spell out the procedures for designing the course of study; and make the case that the curriculum should be differentiated into numerous programs, some academic and preparatory and others vocational and terminal, and that students should be channeled to these tracks on the basis of their abilities (Holt).

In the summer of 1946, Kurt Lewin, a social psychologist at the Research Center for Group Dynamics at the Massachusetts Institute of Technology (MIT), and his staff were asked to help in the research on training community leaders (Cummings & Worley, 2005). A workshop developed, and community leaders were brought together. Thus the

first T-group was formed in which people reacted to data about their own behavior. The researchers conclusions were that feedback was a rich learning experience and that the process of group building has a potential for learning that could be transferred to situations back home (Cummings & Worley). As a result of this experience, the program was so successful that it became a permanent program for the National Training Laboratory within the National Education Association (Cummings & Worley). As time passed the T-groups declined but the techniques gradually became known as team building-a process for helping work groups become more effective (Cummings & Worley).

In education, like business, control was slipping father away from the people and professional educators who were supporting decisions being made at higher levels (Bjork, 1997). According to Bjork, reformers favored the state school board because of its ability to help gather statistics, recommend legislation, and implement state school laws. To reformers, the appointment of state school officers meant progress, efficiency and improved quality, all characteristics of scientific management (Bjork). Owens states that “scientific management had a profound and long-lasting impact upon the ways in which schools were organized and administered” (p. 86).

School superintendents in the United States began to adopt the values and practices of business and industrial managers of that time; “they emphasized efficiency, and rigid application of detailed, uniform work procedures” where they asked for minute-by-minute standard operating procedures for teachers to use throughout the day and throughout the school system, and detailed accounting procedures (Owens, p. 86). According to Owens, in 1916, one of the leading scholars in United States education,

Ellwood Cubberley, wrote that schools were factories where the raw materials should be shaped into products to meet life's demands.

The classical movement was also emerging. Classical organizational theory "came to view the total organization, rather than the individual worker as the focus of attention" (Owens, 2004, p.88). Two of the most influential men who wrote about the creation of efficient systems of organizational management were from Europe; Max Weber and Henri Fayol, a classical manager who believed in stability, unity of direction, and unity of command. Weber believed in the subordination of the individual's needs to the needs of the organization (Sergiovanni, 1992), which often resulted in the dehumanization of the individual (Morgan, 1986).

In the years before World War I, Weber was the first to provide a comprehensive definition of the term "bureaucracy" (Owens, 2004). Although Weber was not known in the English-speaking world until the 1940s, he was producing his work about the same time as Taylor and Fayol – 1910 to 1920 – that is why Weber's work on bureaucracy did not receive world-wide attention in educational administration until after World War II (Owens). However, Weber's and Fayol's concerns for equity and for establishing appropriate links between performance and reward are central themes in contemporary theories of motivation and leadership (Jones & George, 2006). Max Weber expanded on Taylor's theories, and stressed the need to reduce diversity and ambiguity in organizations (Jones & George). Weber's focus was on establishing clear lines of authority and control: His bureaucratic theory emphasized the need for a hierarchical structure of power (Owens).

On the other hand, a different perspective of public education was presented in the early 1900s by John Dewey in his book, Democracy and Education, showing that in spite of its lofty goal, the needs of all of America's children were not being met (Arif, Smiley & Kulonda, 2005). Dewey "felt the experiences of young people brought to academe would complement the experiences they took away from their formal schooling" (Arif, et al., p.608). Thus, Dewey pushed to guide education to a child-centered, interactive, optimum growth environment - "Dewey advocated the use of the scientific method as the primary tool for discovering new knowledge" (Richardson, Flanigan & Lane, 1997, p. 100).

John Dewey indicated that experience is acquired by doing and that education cannot occur by any direct transfer of an idea from teacher to student (Richardson, Flanigan & Lane, 1997). At the basis of Dewey's beliefs is that education is a social process, experience is acquired by doing, and knowledge is born out of experience (Richardson et al., 1997). According to Ediger (2000), democracy as a way of life was to be at the center of learning. "A democracy" according to Ediger, "emphasizes that individuals be involved in making rules by which they are affected (p. 3). Dewey would do away with drill as a method of instruction, and use a "hands on" approach as learning opportunities" (Ediger, p. 3). Dewey's non-authoritarian teaching philosophy, Progressivism, came out of Pragmatism, the only classical philosophy that was conceived and constructed in the United States (Arif, Smiley & Kulonda, 2005). Progressivism was the product of John Dewey (Arif et al).

Dewey's nurturing perspective of education relates to Ferdinand Tonnies' concept, *gemeinschaft* (Sergiovanni, 1994). *Gemeinschaft*, loosely translated, means

community, and has three forms: (1) kinship - which comes from the unity of being; (2) place- which comes from the sharing of common membership and where this sense of belonging changes from the concept of “I” to the concept of “we”; (3) mind – relates to building community within schools and “refers to the bonding together of people that results from their mutual binding to a common goal, shared set of values, and shared conception of being” (Sergiovanni, p. 42). It is clear that successful schools have teachers and administrators who form professional learning communities that focus on student work; that contend with and turn the parents and the community to their advantage ... (Fullan, 2000).

In 1924, Mary Parker Follett, a psychologist, wrote about the need for attention to be placed upon the human perspective in the workplace (Owens, 2004). Follett’s ideas “were also rooted in the classical traditions of organizational theory” (p. 90). However, they were” instrumental in changing the rigidly structuralist views in classical management theory, and helped to usher in the human relations movement” (p. 90). Follett believed that control should be placed in the hands of those workers in the lower levels in order to open up communication across the organization (Owens).

The human relations movement did not begin to gain in momentum until the Western Electric Studies (often called the Hawthorne Studies) headed by Mayo and Roethlisberger (Owens). At the Western Electric Plant in Hawthorne, New York, while manipulating conditions in the work environment (intensity of lighting) they found that any change had a positive impact on productivity (Owens). In other words, the presence of the researchers was affecting the results because the workers were enjoying the

attention they were getting and were willing to cooperate with the researchers to produce the results the researchers desired (Jones & George, 2006).

During the Hawthorne Studies, in 1927, it was discovered that an increase in production was not due to the fact that physical variables within a work plant were manipulated. “One major finding of these studies was the realization that human variability is an important determinant of productivity” (Owens, p. 91). Now the administrator had new concepts available to use: (1) morale (2) group dynamics (3) democratic supervision (4) personnel relations, and behavioral concepts of motivation (Owens, p. 93).

The writings of Elton Mayo and Mary Parker Follett were essential to the human relations movement (Kreitner & Kinicki, 2006). Mayo, born in Australia, headed the Harvard researchers at Hawthorne, and advised managers to attend to employees’ emotional needs in his 1933 book, The Human Problems of an Industrial Civilization (Kreitner & Kinicki). Kreitner and Kinicki describe Follett as “way ahead of her time in telling managers to motivate job performance instead of merely demanding it” (p. 14). They also say she was a true pioneer in the male-dominated industrial world of the 1920s. This, they say is a “pull” rather than a “push” strategy (p. 14).

Historically, schools in the United States have been set up as push-pull processes that can be traced back to Western Europe (Arif, Smiley, & Kulonda, 2005). Some educators use the push educational philosophies of Perennialism or Essentialism, derived from classical philosophies of Idealism and Realism (Arif et al.) These are authoritarian systems that are teacher and institution-oriented, focused and driven. Also, according to Arif, et al., other educators use the pull system of Progressivism or Social

Reconstructionism, derived from the classical philosophies of Pragmatism and Existentialism. These are non-authoritarian systems that are student and culture-oriented, focused and driven. Both of these systems are diametrically opposed in their educational aim (Arif et al.). Tyack (1990) found that periods of reform in education evolved from concerns related to the state of society or the economy causing demands to be placed on the schools to put things in order. According to Tyack, the period in education from 1900 to 1950 “sought to take the schools out of politics and to reorganize them from the top down to the bottom” (p.174).

Reform in the 1950s

In the business world of the 1940s, Kurt Lewin was involved in a movement that was concerned with the processes of action research and survey feedback. Lewin and others discovered that research needed to be closely linked to action if organization members were going to use it to manage change (Cummings & Worley, 2005). Lewin collaborated with others in action research studies that led to the development of participative management as a means of getting employees involved in planning and managing change (Cummings & Worley). When Lewin died in 1947, his MIT research center moved to Michigan under the leadership of Rensis Likert whose doctoral dissertation at the University of Michigan developed the 5-point Likert Scale, and in 1950, Likert’s 5-point Scale led to extensive applications of survey- feedback on organizational change (Cummings & Worley).

At this same time, the Russians launched Sputnik, and school reform in the United States intensified; the space race between the United States and Russia began (Aldridge & Goldman, 2002). The launching of the Soviet spacecraft created a fear that

American education was inferior, and students were unable to compete in a modern world (Mazurek, Winzer, & Majorek, 2000). Therefore, in 1958, Congress passed the National Defense Education Act which provided for the first time federal funds for education, and every president since Lyndon Johnson in the 1960s has called for a change in America's schools (Mazurek, et al., 2000). Massive reform campaigns have been undertaken in many states and large cities; yet, problems still exist (Mazurek, et al., 2000). "The problem with schools, says John Maguire, a California university president, is to be found in relationships" (Mazurek et al., p. 26). According to Mazurek et al., it is difficult to have good relationships in schools when there is a top-down bureaucracy.

Other problems with relationships in schools became manifest in the 1950s with the challenges of the space age, the cold war, and the beginnings of race relations (Cohen, 1974). Progressivism ended in 1955 when the Progressive Education Association became out of touch with these challenges (Cohen, 1974). Landmark Supreme Court cases, such as *Brown vs. Board of Education* (1954, 1956,) were significant attempts to define and address equity in education that "greatly impacted how schools were run and structured" (Aldridge & Goldman, p. 32). In an article by Caldas and Bankston III (2005), they say that the *Brown vs. Board of Education* (1954, 1956) decisions resulted in negative consequences for America's schools by beginning the trend of removing the control over schools from local officials to the federal government. In 1954 the federal government intervened in the schools with the first *Brown Decision*; in 1955 the government gave the federal courts the right to intervene in racially segregated schools (Caldas, & Bankston III, 2005)

Reform in the 1960s

In the 1960s, the business community in the United States used the term “push/pull” to indicate whether or not industry should use the “one-size-fits all” or whether it should listen to consumers’ needs and feedback as a system of producing and marketing products (Arif, Smiley & Kulonda, 2005). They describe the push approach as the production of goods or services in anticipation of customer orders; “this worked well for production-driven systems in which customers’ needs were not incorporated into product design” (p. 603), and anything manufactured in that era was consumed. The manufacturers had complete control over quantity, quality and cost (Arif et al.)

Also, in 1960, Douglas McGregor wrote a book entitled The Human Side of Enterprise, “which has become an important philosophical base for the modern view of people at work” (Kreitner & Kinicki, p. 14). McGregor formulated two sharply contrasting sets of assumptions about human nature:

Theory X Assumptions about People at Work: (1) Most people dislike work; they avoid it when they can. (2) Most people must be coerced and threatened with punishment before they will work. People require close direction when they are working. (3) Most people actually prefer to be directed. They tend to avoid responsibility and exhibit little ambition. They are interested only in security.

Theory Y Assumptions about People at Work: (1) Work is a natural activity, like play or rest ... (2) People are capable of self-direction and self-control if they are committed to objectives. (3) People generally become committed to organizational objectives if they are rewarded for doing so. (4) The typical employee can learn to accept

and seek responsibility. (5) The typical member of the general population has imagination, ingenuity, and creativity. (Kreitner & Kinicki, p. 14).

Clearly, McGregor's Theory X assumptions were pessimistic and negative; therefore, he helped managers break with this negative tradition by formulating Theory Y, a positive set of assumptions about people which McGregor believed would help managers accomplish more through others by seeing them as self-energized, committed, responsible, and creative beings. (Kreitner & Kinicki, 2006).

McGregor's modern view of people at work carried over into a very different period of educational reform that began to take place in the United States in the 1960s (Owens, 2004). There was another move toward Dewey's principles of listening to young and poor people's needs (Berends, 2004; Owens, 2004; Arif & Smiley, 2003). President Johnson launched his "War on Poverty" with the passage of the Economic Opportunity Act, which included the Job Corps, Community Action, and Head Start (Because of racial and minority disharmony, the Elementary and Secondary Education Act (ESEA) of 1965 was passed (Arif & Smiley). The centerpiece of the ESEA is Title I, "Better Schooling for Educationally Deprived Students". This bill provided extra educational services to low income and low achieving students, designating money for a variety of K-12 students (Owens, 2004). The Civil Rights Act of 1964 and the Great Society legislation of 1965 were catalysts to the expansion of federal involvement in local school districts (Caldas & Bankston III, 2005). The ESEA of 1965 was the most expensive bill in history according to Caldas and Bankston III.

Reform in the 1970s

In 1979, it became clear to the business community that the low cost and high quality of foreign-made goods was a result of management practices (especially in Japan); therefore, American businesses set out to design workplaces that affected employee productivity and satisfaction and add to organizational efficiency (Cummings & Worley). As far back as the 1950s, based on research, work designs aimed at better integrating technology and people began to develop in Europe (Cummings & Worley, 2005). These programs resulted in the discovery of self-managing work groups composed of workers who were given autonomy an information to design and manage their own task performances (Cummings & Worley). These programs did not migrate to America until the 1960s and tended to focus on personal consequences of the worker and the satisfaction of personal needs (Cummings & Worley). Clearly, in the 1970s, things changed in the corporate world. A new market developed when customers began to demand options. Product development was now based on needs and production became a make-to-order process (Arif, Smiley & Kulonda, 2004). This approach was called the pull approach; customers told the producers what they needed through surveys, focus groups and brainstorming sessions, and the producers made only what was needed (Arif et al.).

Education was also changing in the 1970s. Congress increased federal controls over Title I programs, and provisions were added which mandated that funds should be targeted on schools with high proportions of poor children (Lynch, 1998). Additionally, these funds were to be used only to supplement programs not substitute for them (Lynch).

Reform in the 1980s

A wake up call was being issued in 1980 to all North American companies. The National Broadcasting Company (NBC) aired a television documentary titled “If Japan Can ... Why Can’t We?” (Kreitner and Kinicki, 2006). This call was for companies to dramatically improve the quality of goods and services in the United States. Books about Japanese management made the best-seller lists in the United States in the 1970s. As a result, productivity and quality of work life became so popular that it was called an ideological movement that was evident in the spread of quality circles within many companies (Cummings & Worley, 2005). Cummings and Worley describe quality circles as “groups of employees trained in problem-solving methods that meet regularly to resolve work-environment, productivity, and quality-control concerns and to develop more efficient ways of working” (p. 11). Total Quality Management (TQM) was a movement that ensued during that time. TQM is defined as “an organizational culture dedicated to training, continuous improvement, and customer satisfaction” (Kreitner & Kinicki, 2006, p. 15). Total Quality Management is a way of thinking and working that requires organizational change that starts from within the organization; it is a management philosophy that focuses on quality (Jones & George, 2006).

W. Edward Deming became known at the end of World War II when he accepted an invitation from General Douglas MacArthur to help the Japanese revive their fallen economy (Pool, 1997). Deming is generally considered the founder of total quality management (TQM), because he provided the framework for post-World War II Japan to restore its manufacturing base, and for U.S. firms such as Ford and Xerox to improve the quality of their products and services (Jones & George, 2006). However, according to

Shirley (1997), the main founder of TQM was Walter A. Shewhart and Deming was his student. Shewhart was a statistician from Bell Laboratories where he provided solutions to producing/ distributing telephones and networking phone lines (Jones & George). Shewhart wrote a book that was published in 1931 titled The Economic Quality of Manufactured Products (Jones & George). Shewhart developed the plan-do-study-act (PDSA) cycle with customers as the “single focus” (Jones & George). Shewhart later became known as the father of quality control (Richardson, Flanigan & Lane, 1997).

Deming’s Total Quality Management (TQM) system describes the pull system in the business world (Arif, Smiley, & Kulonda, 2005). “TQM is a pull system because the magnitude of acceptable quality was defined by customers” (Arif et al. p608). Manufacturers used this benchmark in order to regulate production and ensure that quality of the final product was what the customer wanted (Arif et al.). TQM was first implemented in businesses in the 1980s and widely adopted throughout the world as a management theory that offered the best way to manage businesses (Marzano, Waters & McNulty, 2005). According to Kreitner and Kinicki (2006), Deming had a lot to say about the human side of quality improvement; especially, how employees should be treated:

- Formal training in statistical process control techniques and teamwork
- Helpful leadership, rather than order giving and punishment
- Elimination of fear so employees will feel free to ask questions.
- Emphasis on continuous process improvements rather than on numerical quotas.
- Teamwork.
- Elimination of barriers to good workmanship. (Kreitner & Linicki, p. 16)

Kreitner and Kinicki (2006) go on to say that one of Deming's most enduring lessons for managers is his 85-15 rule: "when things go wrong, there is roughly an 85% chance the system is at fault, and only 15% of the time is the individual employee at fault" (p. 16). It is clear from one of the principles of TQM, "Build teamwork, trust, and mutual respect", that it is important "that we see people as the key factor in organizational success" (Kreitner & Kinicki, p. 16).

The call for quality in business in the United States resulted in a call for quality in education (Shirley, 1997). In education, the 1970s and early 1980s ushered in the effective schools movement (Ravitch, 2000). Ron Edmonds was a researcher and senior assistant to the chancellor of the New York City public schools in 1980 (Ravitch, 2000). According to Ravitch, Edmonds maintained that all children could be successfully taught anytime and anywhere if there was a sufficient will to educate them. "Based on Edmonds studies of successful schools in impoverished communities, he proposed that effective schools had a strong leader, high expectations for all students, an orderly environment, a relentless focus on basic academic skills, and regular testing to monitor pupil's progress" (Ravitch, p. 416). Ravitch notes that Edmonds disagreed with those who believed that student achievement was based on family background or that "only racial balance could produce quality education" (p. 416). Edmonds warned that the country should pay attention to instructional reform, not court ordered busing to attain racial balance (Ravitch). Effective schools research during the 1970s and 1980s made it clear that positive outcomes were being made by children from high poverty settings (Berends, 2004). According to Edmonds (1979), "we can successfully teach all children whose schooling is of interest to us; we already know more than we need to do that; and whether

or not we do it must finally depend on how we feel about the fact that we haven't so far" (p. 23).

Studies on effective schools have shown how schools must change to become more effective (Valesly & Markus, 1997). They must: "establish a clear mission; have administration and staff that focus on instruction; continually monitor student progress; have high expectations of student achievement; provide staff development; involve stakeholders in decisions; encourage parental support and involvement; provide a safe and orderly environment; and have a positive school culture in which collaborative planning, collegial relationships, and a sense of community lead to shared goals and a focus on problem solving" (Valesly & Markus, 1997, p. 117).

In the early 1980s, there was a sense that something was wrong with education in the United States, and there was a need to do something to improve educational standards (Ravitch, 2000). The event that stirred the public's interest was the publication of A Nation at Risk in 1983 (Ravitch, 2000). The National Commission on Excellence in Education released A Nation At risk: The Imperative for Educational Reform in April of 1983 (Ravitch, 2000). This report raised the concern that America was losing its lead in science, industry, technology and commerce (Berends, 2004; Ravitch, 2000, DuFour & Eaker, 1998). This report "was a landmark of education reform literature" (Ravitch, 2000, p. 411). Ravitch proclaims that the national press and the general public had ignored other reports, but this report was different because it was written in "stirring language that the general public could understand", and it "warned that the schools had not kept pace with the changes in society and the economy, and that the nation would suffer if education were not dramatically improved for all children" and the report "also asserted

that lax academic standards were correlated with lax behavioral standards and that neither should be ignored” (p. 411). DuFour and Eaker, (1998) proclaim that “A Nation at Risk served as a mechanism for a flood of school improvement initiatives throughout the United States that came to be known collectively as the Excellence Movement” (p. 3).

A Nation at Risk called for “more rigorous and measurable standards for what students studied and how well they learned what they studied” (Berends, 2004, p. 137). In addition, the report recommended that teachers should be “required to meet high standards, demonstrate an aptitude for teaching, and demonstrate competence in an academic discipline” (Berends, 2004, p 137). Therefore, content standards (what students should know), performance standards (how well students should know the contents), assessments for measuring how well students mastered the contents, and professional development for teachers to teach to the standards were developed during the 1980s and 1990s in response to the recommendations from the A Nation at Risk report (Berends, 2004; DuFour & Eaker, 1998).

Two major changes were made in the Title I program in 1980. First, Congress passed the Education Consolidation and Improvement Act (ECIA), to address societal and curricular inequities –job hunting and training skills for at-risk youth (Arif & Smiley, 2003). The ECIA consolidated more than two dozen smaller education programs, but kept Title I except for changing the name to Chapter I and getting rid of the regulations from the former Title I program (Arif & Smiley).Congress made the second change in the Title I program in 1988 by passing the Hawkins-Stafford Elementary and Secondary School Improvement Amendments (P.L. 100-297) (Lynch, 1998). This amendment provided for improving accountability, improving resources, improving the utilization of

higher-order thinking skills, encouraging innovation through incentives and required school districts to identify schools where Title I programs needed improvement (Lynch).

Also, the 1980s saw the emergence of systemic reform, an approach based on the idea that change should be focused on all of the elements of the education system – education policy, teacher preparation, discipline policies, school governance, and resources - and coordinated around a set of clear outcomes for students (Kohn, 2001). Although the Excellence Movement offered a direction for reform, it did not offer anything new (DuFour & Eaker, 1998). Despite the fact that billions of dollars had been spent, the Excellence Movement was a failure (DuFour & Eaker, 1998).

Reform in the 1990s

In the corporate world, many of the quality- of- work- life programs that started in the 1980s were proving to be highly successful in the United States, and as a result, highly visible companies were willing to publish their quality-of-work-life efforts (Cummings & Worley). Unfortunately, these new management ideas of quality circles proved to be just another fad and therefore faded into decline (Senge, 1990). According to Senge, some ideas do not fade even after the “faddishness passes” (p. x). Senge felt that one way to influence the sustainability of the idea of the learning organization was to establish systems thinking.

At the same time, in education, the media, fundamentalist religious leaders, and the general public became very critical of the public schools in the United States in the 1980s (Arif & Smiley, 2003). Therefore, the government began to sponsor councils and commissions to meet and offer recommendations to solve some of these problems in the public schools (Arif & Smiley). These recommendations led to K-12 education programs

legislation known as “Goals 2000” during the Clinton and Bush Presidencies (Arif & Smiley). Goals 2000 identified six national goals for education. Congress amended the original list and added two more goals (DuFour & Eaker). In 1991, the National Center on Education and the Economy and the Learning Research and Development Center at the University of Pittsburgh joined together to design a national exam system (DuFour & Eaker).

Standards-based educational reform gained federal support when the Elementary and Secondary Education (ESEA) Act was reauthorized in 1994 (Ravitch, 2000). One of the key thinkers behind standards based reform was Marshall Smith, a Stanford University professor who was the Undersecretary of Education during the Clinton Administration (Berends, 2004). In 1994, President Clinton’s first major education legislation was called Goals 2000 (Ravitch, 2000). This program provided funds for states to develop standards and assessments, and it authorized a new federal board to certify national and state standards (Ravitch). This new federal board was called the National Education Standards and Improvement Council (DuFour & Eaker, 1998). When these funds were distributed to the states, the states began to develop academic standards; unfortunately, President Clinton failed to appoint anyone to the federal board, and when the Republicans gained control of Congress in 1994, it was abolished (Ravitch). Many critics felt that the standards movement was a takeover of the schools by the federal government to “indoctrinate students to the liberal agenda” (DuFour & Eaker, p. 6).

Restructuring efforts in the 1990s focused mostly on site-based reform (DuFour & Eaker, 1998). The Restructuring Movement gave school leaders hope that they would have greater authority to bring about change in their schools because restructuring was

supposed to be a bottom-up approach to school reform; however, it failed (DuFour & Eaker). Also, in the 1990s, more changes were made to Title I. In 1992, Congress passed the “1992 National Assessment of Chapter I Act” (P.L. 101-305) which mandated reports on the effectiveness of the Title I program with references to the Hawkins-Stafford Amendments of 1988 (Lynch, 1998). In 1994, Congress reauthorized Chapter I and changed the name back to Title I (P.L. 103-382). This new reauthorization was called the Improving America’s Schools Act (IASA), effective July 1, 1995; encourages school-wide projects and school-level professional development and renews the school improvement and accountability provisions of the Hawkins-Stafford Amendment (Lynch).

Reform in the 2000s

In 1987, Senge believed that the learning organization was becoming a new management trend in business; therefore, in 1990 he published his landmark portrayal for creating learning organizations in his book The Fifth Discipline, a guide for creating learning organizations. According to Senge, learning organizations were needed because businesses were competing in an economy that was becoming more complicated, vibrant, and globally oriented. He argued that for organizations to be successful, they needed to make extensive use of a “learning approach”, a practice not typically taken in authoritarian organizations.

By 2000, many articles and books had been published that showed a parallel between business and education in the United States. The education system had been compared to various business systems (Arif, Smiley & Kulonda, 2005). According to Arif et al., product consumers were compared to students, and business producers and

owners were compared to teachers. Some critics suggested that the schools be run as businesses; however, others felt that the schools should be more accountable to their students and the society (Arif et al.).

At the beginning of the twenty-first century, there were three different theories of school reform competing for support from the constituencies concerned with the problem (Owens, 2004). The three approaches were: market-based school reform; standards-based school reform; and whole-school reform (Owens). In January 2002, the Congress of the United States chose one of the three approaches to school reform by passing, and the President signing the No Child Left Behind Act, which was a standards based approach (Owens).

This approach to school reform, standards-based, is a “political strategy: it accepts and seeks to work within the direct democratic political system under which public schooling has been controlled in the United States for some two centuries” (Owens, p. 395). The No Child Left Behind Act reauthorized the Elementary and Secondary Education Act of 1965, and “mandated a broad array of goals, tests, and changes in the schools along with prescribed rewards and punishments” (Owens, p. 221).

“The No Child Left Behind Act of 2001 (NCLB) is a landmark in education reform designed to improve student achievement and change the culture of America’s schools” (U.S.D.O.E., 2003). One of the cornerstones of the law is an increased accountability for student achievement. Each state must develop a plan to assess children’s progress in meeting state standards in all of its public schools. Under the provisions of this law, students must be tested at least once a year for both language arts and mathematics in grades 3-8 and once again in high school. The results of these

assessments must be disaggregated into various subgroups, and schools must make adequate yearly progress (AYP) in meeting established benchmarks in each subgroup for the purpose of achieving 100% proficiency by 2014.

Schools that fail to make AYP face increasing consequences. After receiving a warning in their first year, schools that do not meet all of the AYP benchmarks must offer intra-district school choice after the second year of failure. After three years, Title I schools must use federal funds to provide supplemental services to their most needy students. Schools may face more severe consequences in subsequent years, including restructuring or reconstitution. Each state must also set rewards for schools that regularly make AYP and begin to close the achievement gaps.

The state of Georgia's response to NCLB was the development of the Georgia professional learning standards addressed in the Georgia Professional Learning Standards. The State Board of Education adopted twelve standards to be used as tools for increasing student performance at all levels. These twelve standards were divided into three areas: (1) Context Standards – those conditions that must exist to support and ensure that the remaining standards can be implemented in a school – these include Leadership, Resources and Professional Learning Communities. (2). Process Standards – the “how” of quality professional learning. These emphasize essential processes as being sure that professional learning experiences are research-based. (3). Content Standards – emphasize the importance of professional development on proven teaching and leadership practices, the role of equity in successful schools and the essential roles of the family and the community. It is clear that before any of the other standards can be

implemented, the “Context Standards” of leadership, resources, and professional learning communities, must first exist.

Deschenes, Cuban and Tyack (2001) say that according to the standards movement, “all students can learn and that all students should be held to a high standard of performance” (p. 525). Deschenes et al. hold the belief that never before has an educational movement incorporated these beliefs into its reform strategy. Regardless of what is written in the reform strategies of the standards movement, there will always be a number of children who do not or cannot accomplish what their schools expect them to accomplish (Deschenes et al.).

Sirotnik and Kimball (1999) say that it is important to obtain other information that will confirm or disconfirm the information provided by a single test score because of the importance of the decision and stakes associated with this single test. They say, “Common sense suggests that scores on one test (which itself is only a sample of many possible performances) cannot possibly represent all that is going on in a school, any more than the temperature reading on a thermometer can represent all that is going on in a human body”. Mark Goldberg (2004) concurs by stating, “We would give Roger Clemens a paper and pencil test on pitching and baseball because it would be easier to administer and grade such a test than it would be to evaluate several pitching performances over two or three seasons”. Indeed, the standards movement is no different from other movements in the past one hundred and fifty years; there will still be students who perform poorly, and there will still be students who fail (Deschenes et al., p. 526).

Holt (2001) posits that Taylor’s influence still lingers in education in four respects: (1) it led to a separation in the United States between educational administration

and curriculum planning-reflecting the distinction between manager and worker-so that the high school principal became a desk-bound operative in line management, merely implementing orders from the school district instead of taking a leading part in curriculum thinking; (2) it has fostered a view of teachers as operators rather than creators, mere functionaries on the receiving end of curriculum schemes devised elsewhere; (3) the emphasis is on outcomes rather than inputs-on education seen as performance, not as experience-which distorts the enterprise of schooling and inhibits innovation; (4) the mania of numerical results leads to an overwhelming reliance on tests, assessments, audits, and appraisals-all of which are of doubtful validity and take up time better spent on learning (Holt, p.147).

The Learning Organization

During most of the twentieth century, the industrial or factory model dominated the way Americans thought about the development of organizations (DuFour, Guidice, Magee, Martin & Zivkovic 2002). This model was based on the premise that one best system could be identified to complete any task or solve any organizational problem. According to DuFour et al., the twenty first century concept of the learning organization is a model that will enhance the effectiveness of institutions and the people within them. Additionally, in an article, "Deming's Quality: Our Last But Best Hope", Randy Schenk (1993) stated that "Deming's ideas on quality set in place the conditions for the development of learning organizations that nurture people" (p. 64).

In 1938, Chester Barnard, a vice president of the New Jersey Bell Telephone Company, wrote a book that proposed one of the first modern theories of organization by defining organization as a system of consciously coordinated activities (Owens).

According to Owens, Barnard was in close communication with the scientists who conducted the Western Electric Studies, and “one of his most important contributions ... was to illuminate the crucial importance of better understanding the relationship between the formal organization and the informal organization” (p. 97). Barnard stressed that the role of executive was to create an atmosphere where there is coherence of values and purpose. Additionally, organizational success was linked to the ability of the leader to create a cohesive environment, and proposed that a leader’s authority is derived from subordinates’ acceptance, instead of the hierarchical power structure of the organization.

In 1945, Herbert A. Simon made an important contribution to the study of organizations when he proposed a model of “bounded rationality” to explain the Hawthorne experiments: His theory stated that workers could respond unpredictably to managerial attention (Owens, 2004). Also, Simon believed that human decision-making capabilities are bounded by people’s cognitive limitations – their ability to interpret, process, and act on information (Jones & George, 2006). Moreover, Jones and George say that the number of alternatives a manager must identify is so great and the amount of information so vast that it is difficult for the manager to even come close to evaluating it all before making a decision” (p. 230).

The quality of manager’s decision-making “depends on innovative responses to opportunities and threats” (Jones & George, 2006 p. 245). Jones and George proclaim that managers increase their ability to make decisions that allow them to adapt to, modify, and even change their environments, and increase performance, if they encourage organizational learning.

Chris Argyris, a Harvard professor, was one of the earliest scholars engaged in the study of the “learning organization” (Owens, 2004). “Organizational learning is the process through which managers seek to improve employees’ desire and ability to understand and manage the organization and its task environment so that employees can make decisions that continuously raise organizational effectiveness” (Jones & George, p. 245). Jones and George (2006) go on to say that for organizational learning to occur, top managers must use Senge’s five disciplines of a learning organization; change their management assumptions; strive to retain what customers value, and promote individual creativity by giving people the freedom and opportunity to generate new ideas.

Additionally, employees must be able to trust, take risks, experiment, make mistakes and learn from them. According to Argyris (1996), the process of information gathering in an organization is called “organizational inquiry”. And Argyris and Schon (1978) define organizational learning as that learning in an organization that involves the detection and correction of errors. They call this learning “single-loop learning”. Single loop learning occurs when errors are detected and corrected and organizations carry on with their present policies and goals, and strategies are taken for granted (Argyris & Schon). Senge (1990) calls this type of learning “adaptive learning” or “coping”.

Argyris and Schon (1978) also define another type of organizational learning as double-loop learning.

Double-loop learning is in-depth organizational learning that looks at organizational norms and structures that cause the organization to function in the way it does. Double-loop learning, developed by Chris Argyris,

questions the system itself and why error or successes occurred in the first place. (Marquardt, 1996, p. 228)

Double-loop learning occurs when, in addition to detection and correction of errors, the organization questions the role of the learning systems and modifies its existing norms, procedures, policies, and objectives (Argyris & Schon). Senge (1990) calls this type of learning “Generative Learning” or Learning to Expand an Organization’s Capabilities”. Systems theory guards against the “tendency to ascribe phenomena to a single causative factor” (Owens, p. 121).

Systems theory was originally outlined by Hungarian biologist Ludwig von Bertalanffy in 1950; however, it had not been applied to organizations until recently (Owens, 2004). Systems theory is basically concerned with problems of relationships, of structures, and of interdependence; it attempts to describe, explain, and predict organizational behavior (Owens). Bertalanffy proposed that:

An organism is an integrated system of interdependent structures and functions. Organism is constituted of cells and a cell consists of molecules which must work in harmony. Each molecule must know what the others are doing. Each one must be capable of receiving messages and must be sufficiently disciplined to obey. You are familiar with the laws that control regulation. You know how our ideas have developed and how the most harmonious and sound of them have been fused into a conceptual whole which is the very foundation of biology and confers on its unity. (p. 119)

According to Owens (2004), “this statement captures the basic ideas of a way of considering and analyzing complex situations that have come to be preeminent in both the physical and the social sciences” (p. 119). Although Bertalanffy was referring to biology, Owens says that if we substitute the word *organization* for organism, *group* for cell, and *person* for molecule, then the above statement has relevance for thinking about organizations.

Senge (1990) defines systems thinking as, “a conceptual framework, a body of knowledge and tools that has been developed over the past fifty years, to make the full patterns clearer, and to help us see how to change them effectively” (p. 7). Additionally, Senge describes systems thinking as “a discipline for seeing wholes. It is a framework for seeing relationships rather than things, for seeing patterns of change rather than static “snapshots”” (p. 69). Senge’s (1990) observation that the solutions of the present may create the problems of the future is another way of expressing a new view of causality necessary in systemic thinking. Hoy and Miskell (1996) point out that Senge’s systems thinking fits well into the view of the school as a whole system.

Learning organizations are organizations which are capable of thriving in a world of interdependence and change, and require, according to Kofman and Senge (1995), “Galilean” shifts of mind in how we think and interact as members of the organization. They describe a significant adjustment, moving from the primacy of pieces to the primacy of the whole, from self to community, and from problem solving to creating. In order to learn, Kofman and Senge (1994) assert that it is important for people to recognize those things that they do not know, and also recognize those things which they do know.

In his book, titled The Fifth Discipline, Peter Senge (1990) defines the term learning organization as a place “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3). “Senge’s book promoted the idea of a work environment where employees engaged as teams, developing a shared vision to guide their work, operating collaboratively to produce a better product, and evaluating their output” (Hord, Meehan, Orletsky, & Sattes, 1999).

Senge (1990) describes a learning organization as an organization “in which one cannot not learn because learning is so insinuated into the fabric of life” (p. 4). Senge (1990) identified five disciplines which a learning organization practices. These five disciplines differ from familiar management disciplines in that each is a “personal discipline, involved with how we think, what we truly want and how we interact and learn with one another” (Senge, 1990, p. 11). According to Senge’s (1990) five disciplines, the keys to achieve a learning organization are: Systems Thinking, Personal Mastery, Mental Models, Shared Vision, and Team Learning.

Senge (1990) portrays this model of interdependent disciplines as necessary in order for an organization to seriously pursue learning. Systems Thinking is a theoretical structure and a body of knowledge that Senge believes is the foundation of change and the most significant of the disciplines. It is a way of thinking about and a way of understanding the forces and relationships which shape the behavior of systems. Systems Thinking is a conceptual framework which helps learning organizations to discern the

world as a series of patterns of interrelated actions rather than of independent snapshots, and to learn to either reinforce them or change them effectively (Senge, 1990).

Senge (1990) calls Systems Thinking the fifth discipline because it blends the other four disciplines into a whole. The fifth discipline is described as the most important aspect of a learning organization, and Senge lists eleven laws of this fifth discipline:

- (1) Today's problems come from yesterday's "solutions."
- (2) The harder you push, the harder the system pushes back.
- (3) Behavior grows better before it grows worse
- (4) The easy way out usually leads back in.
- (5) The cure can be worse than the disease.
- (6) Faster is slower.
- (7) Cause and effect are not closely related in time and space.
- (8) Small changes can produce big results – but the areas of highest leverage are often least obvious
- (9) You can have your cake and eat it too-but not at once.
- (10) Dividing an elephant in half does not produce two small elephants.
- (11) There is no blame. (Senge, 1990, pp. 57-67).

The five disciplines, according to Senge (1990), are described as being personal in nature. Personal mastery refers to a special level of proficiency. Personal mastery encourages self-examination, defines problems, and identifies innovative solutions to resolve them. Personal mastery continually challenges an individual's way of thinking and makes demands upon one's way of thinking. It involves an evolutionary process and a vehicle that people may use to increase their own capabilities as well as the capabilities

of those around them (Senge, Kleiner, Roberts, Ross & Smith, 1994). Senge, et al. (1994) claim that an organization sets up conditions that encourage and support its people as they develop.

The conditions that foster a climate of personal mastery mean “building an organization where it is safe for people to create visions, where inquiry and commitment to the truth are the norm, and where challenging the status quo is expected...” (Senge, 1990, p. 172). “Personal mastery is the discipline of continually clarifying and deepening personal vision, of focusing energies, of developing patience, and of seeing reality objectively” (Senge, 1990, p. 37). Senge (1990) noted that the roots of this discipline lie in Eastern and Western spiritual and secular societies. Senge said, “I am most interested in the connections between personal learning and organizational learning, in the reciprocal commitments between individual and organization, and in the special spirit of an enterprise made up of learners” (p. 8). Senge notes that personal mastery involves learning to keep both a personal vision and a lucid picture of current reality before us. Doing this will create a force within us called “creative tension” (Senge, Kleiner, Roberts, Ross, & Smith, 1994, p. 195). “Personal mastery teaches us to choose. Choosing is a courageous act” (Senge, et al., 1994, p. 19).

“Mental models is described by Senge (1990) as “deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action” (Senge, p. 8). They are the core beliefs which individuals or organizations hold. They are “deeply held internal images of how the world works, images that limit us to familiar ways of thinking and acting” (Senge, p. 174). Senge suggests that mental models are very powerful in affecting what we do because they

affect what we see. Also, problems arise when people are unaware of their mental models – “they exist below the level of awareness” (p. 176). Senge further noted that frequently, one is not knowingly conscious of these mental models or the effects they have on our behavior. This disciplines core task is to bring mental models to the surface, to discover and speak about them with least amount of defensiveness (Senge, Kleiner, Roberts, Ross, & Smith, 1994). There is a prevalent assumption among educators that “parents don’t really know much about what their children need” (Senge et al., p. 236); in fact, this way of thinking has often resulted in well-intentioned school reform efforts causing estranged parent groups to form (Senge, 1990).

Senge (1990) states that a shared vision is “a force in people’s hearts, a force of impressive power ... that may be inspired by an idea; vital for the learning organization because it provides the focus and energy for learning” (p. 206). And according to Senge (1990), a vision is truly shared when everyone has a similar picture of where the organization is going and are equally committed to everyone in the organization having the same vision. Thus, shared vision calls for each individual to care about other members’ visions, which creates a unifying vision that provides the collective energy necessary to move the group forward. Individuals must have a strong sense of personal vision before they can build a shared vision among a group (Senge, 1990). Senge concluded that a shared vision “has to do with a common direction and reason for being” (p. 375).

Senge (1990) noted that a shared vision is the reply to the question, “What do we want to create?” (p. 206). Shared visions produce a sense of commonality. People are bound together by a common aspiration when a shared vision is connected (Senge). The

content of a true shared vision can only emerge from a coherent process of reflection and conversation” (Senge, Kleiner, Roberts, Ross, & Smith, 1994, p. 299). Senge’s research found that in most organizations, there are, comparatively, a small number of people enrolled in this vision and even fewer dedicated to it.

Team learning, according to Senge (1990), “is the process of aligning and developing the capacity of a team to create the results its members truly desire. It builds on the discipline of developing shared vision. It also builds on personal mastery, for talented teams are made up of talented individuals” (p. 236). Team learning is a tool for raising the collective IQ of a group above that of anyone in it. Through team learning, the whole becomes smarter than the parts. Team learning requires individuals to engage in dialogue and discussions of issues that are critical to the team’s success. Members must be able to share ideas, critique what has been presented, and work and talk with others in order to arrive at the best solution. “In dialogue, individuals gain insights that simply could not be achieved individually” (Senge, 1990, p. 241). The skills required for team learning must be practiced, according to Senge (1990). He says that through practice, we can successfully identify defensive responses, learn to better suspend personal biases towards others and their ideas, and work toward building a cohesive and productive team. One aspect of this discipline is to recognize and overcome patterns of defensiveness that undermine group learning (Senge, 1990). Senge stated that team learning is vital because “teams, not individuals, are the fundamental learning unit in modern organizations; unless the team can learn, the organization cannot learn” (p. 48).

Senge (1990) says that team learning in an organization has three critical dimensions. First, there is the requirement to think in depth about complex issues. That is,

teams must learn how to tap the prospective for many minds to be more intelligent than one mind. Second, there is the prerequisite for innovative, synchronized action, such as, operational trust. All team members can be counted on to act in ways that complement each other's actions. Third, there is the position of team members on other teams. For example, senior team members share with other teams. Therefore, "a learning team continually fosters other learning teams through inculcating the practices and skills of team learning more broadly" (Senge, p. 237). Even though team learning is a collective discipline, it "involves mastering the practices of dialogue and discussion, the two distinct ways that teams converse" (Senge, p. 237). In dialogue, there is innovative discovery of issues and listening to each other and "suspending one's own views" (p. 237).

According to Senge and Roberts (1996), the learning organization member must be proficient at three aspects of learning:

- The ability to process reality and take in weak, strong, and surprise segments;
- The ability to build shared understanding of the economy information and create knowledge; and
- The ability to take knowledge and translate it into effective action toward a vision.

Senge, Kleiner, Roberts, Ross, and Smith (1994) stated in The Fifth Discipline Fieldbook that the skills and capabilities that individuals need are aspiration, reflection and conversation, and conceptualization. Aspiration is the capacity of individuals to orient themselves toward what they truly care about, and to change because they want to, not just because they need to. (The practice of personal mastery and building shared vision, develop these capabilities.) Reflection and conversation allows an individual to

reflect on deep assumptions and patterns of behavior, both individually and collectively.

These conversations require individuals capable of reflecting on their own thinking.

(These skills emerge in the disciplines of mental models and team learning.)

Conceptualization is so that he or she can have the capacity to see larger systems through conceptualization. What seems simple from an individual point of view looks much less so when it is seen from others' points of view. (Systems thinking is vital for these skills, especially in concert with the reflectiveness and openness fostered by working with mental models.)

Senge (1990) warns us that without systems thinking, the best that our organizations can do is adaptive learning which focuses on coping skills which ensures survival. On the other hand, generative learning develops new understanding and capacities that enhance "our capacity to create" Senge, 1990, p. 14). Generative learning leads to a shared vision that increases an organization's capacity to change and adjust system processes and structures. O'Neill warns that the vast majority of schools do not operate within a system which is able to promote a shift to a learning organization where deep learning must be learner-driven. Seeing the organization as a whole, the structures that have strong influences on behavior and "thinking in terms of processes of change" are ideas from systems thinking that have profound implications for change in schools (Senge, 1990, p. 65).

Schools more than any other organization should be learning organizations (Hoy & Miskell, 1996). Systems thinking has implications for changing our schools by offering "a language that begins by restructuring how we think" (Senge, 1990, p. 69) for seeing the whole and the underlying parts. Seeing the organization as whole, the structures that

have strong influences on behavior and “thinking in terms of processes of change” are ideas from systems thinking that have profound implications for professional development and change in schools (Senge, 1990, p. 65).

When asked if schools are learning organizations, Senge replied:

Definitely no ... most of the educators I talk with don't feel they're doing this. Most teachers feel oppressed trying to conform to all kinds of rules, goals and objectives, many of which they don't believe in. Teachers don't work together; there's very little sense of collective learning going on in most schools. (as cited in O'Neil, 1995, p. 20).

In their work, Marsick and Watkins (1996) outline how a learning organization supports learning at three levels: (1) individual, through continuous opportunities, inquiry, and dialogue; (2) team, through action, learning and collaboration; and (3) organizational, through systems that capture learning, empower participants, and link to the environment. Additionally, they call for leadership which models and support learning at all three levels (Marsick & Watkins, 1996).

The idea of working in teams came from the business organizations, and an increasing number of organizations rely on the team as the primary vehicle for improving productivity and accomplishing goals (Wheelan & Kesselring 2005). Although change came slower to the schools in the United States, teamwork has become commonplace in America's schools because research has linked effective teams with improved productivity in the workplace (Wheelan & Kesselring).

Teamwork is a key to W. Edward Deming's concept of education, according to Richardson, Flanigan, and Lane (1997), and the essence of Deming's philosophy is

embedded in his principles of Total Quality Management (TQM). Educators believe that the Deming concepts of TQM provide guiding principles for educational reform (Ruhl-Smith, 1997; DeMoulin, 1997) According to DeMoulin, TQM is attained in education by forming and maintaining teams that have a common purpose to help provide the best educational opportunity for student success.

Deming stressed the importance of continuous improvement and explored the application of TQM to education. He advanced the notion that everyone is part of the school community, and all work for the same results where strong relationships of mutual respect and trust replace apprehension, distrust and division. Moreover, he stressed the importance of schools moving away from top-down administration (Cummings & Worley, 2005). DuFour and Eaker (1998) describe a professional learning community as a place where students, parents, teachers, and administrators work together as a team toward common, shared goals. Like TQM, a professional learning community is devoted to the pursuit of knowledge.

Professional Learning Communities

The Institute of Educational Leadership (2001) predicts that the organizational structure of today's schools will not last. A new organizational model proposed by educational researchers, schools as professional learning communities, is based on significantly different assumptions, beliefs, and behaviors. This new organizational model was inspired by Peter Senge's (1990) "learning organization" concept from his book The Fifth Discipline. Senge argued that American companies that wanted to remain competitive would need leaders who were willing to adopt a new organizational paradigm. This new paradigm would move the organization from the hierarchical,

conception of leadership, to one in which every member is responsible for continuous learning for improvement.

Some common attributes of professional learning communities are:

- Inquiry-based
- Focused on student learning
- Goal- and results-oriented
- Collaborative
- Reflective
- Based on shared values and beliefs
- Committed to continuous improvement (Mason, 2003).

These common attributes “provide the structure and culture conducive to organizational learning by focusing on: teaching and learning; collaboration among staff and with external partners; inquiry-based learning and reflection, shared values, norms, and dispositions of teachers, and a commitment to continuous improvement” (Mason, 2003, p. 6).

A number of authors list what they believe are the essential characteristics of a professional learning community. For example: shared values and vision, collective creativity, shared personal practice, supportive and shared leadership, supportive conditions, physical conditions, and people capacities (Hord, 1997; DuFour & Eaker, 1998; Morrissey, 2000; Senge Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000).

As Senge’s (1990) model of a learning organization was explored by educators and shared in educational journals, it became known as a professional learning community (Cibulka, 2000). DuFour and Eaker (1998) prefer the term professional learning community over the learning organization because “while the term ‘organization’ suggests a partnership enhanced by efficiency, expediency and mutual

interest, 'community' places greater emphasis on relationships, shared ideals, and a strong culture-all factors that are critical to school improvement" (p. 15).

Peter Senge's business model has been adopted as relevant to the educational setting because his work stresses the importance of "systems thinking". According to Senge, "Lacking an appreciation of the system as a whole, most well-intentioned efforts either have little positive impact or make things worse. The problems come from how people think about how they look at the world" (Senge & Lannon-Kim, 1991).

A professional learning community is defined as a school in which the professionals (administrators and teachers) are committed to working together collaboratively as learners to improve achievement for all students in a school (Morrissey 1997, 2000; Cibulka et al., 2000). The single most important factor for successful school improvement is creating a collaborative professional learning community (Faigenbaum, 2003; Hord, 1997; DuFour & Eaker, 1998; Morrissey 2000).

DuFour and Eaker (1998) contend that if schools are to be more effective, they must embrace a new model that enables them to function as professional learning communities. Professional learning communities have been described as the "preferred" organizational arrangement in schools (Hall & Hord, 2001). The idea of a school as a learning community suggests a kind of connectedness among members that resembles what is found in a family, a neighborhood, or some other closely knit group, where bonds tend to be familial or even sacred" (Sergiovanni, 1992, p. 47).

School improvement happens when a school develops a professional learning community that focuses on student work and

changes teaching...In order to do that , you need certain kinds of skills, capacities, and relationships. (Fullan, 2000, p. 11).

Educators have looked to business for ideas on building stronger learning organizations in schools (Senge, 1993). In the literature on school improvement, the development of a school as a learning organization has been presented as communities of learners or professional learning communities (Deal & Peterson, 1999; O'Neil, 1995; Sergiovanni, 1994). Therefore, this study assumes that one desirable outcome of school reform is for a school to become a professional learning community, and one way of becoming a professional learning community is through Senge's five disciplines of a learning organization.

DuFour and Eaker (1998) argue that American schools were organized around the factory model; therefore, they proposed a new model for school organization that they also called the professional learning community. They suggested that although the factory model may have been appropriate when schools were not expected to educate large numbers of students, it is woefully inadequate in the climate dominated by the No Child Left Behind Act (2002); in which schools are expected to educate all students to a high level of mastery and to also teach students to learn how to learn. They make the case that educators need to embrace an alternative model of the school, one that was consistent with the findings of a number of educational researchers; the authors suggested that the professional learning community was one such model. The converging themes are: shared values and vision; collective inquiry and continuous improvement; shared leadership; and supportive conditions.

Clearly, there is considerable overlap between these models of the learning organization. The learning organization model described by Peter Senge (1990) will serve as the conceptual framework for this study. Senge's model was selected because it was the first model, and all of the other models have characteristics taken from Senge's five disciplines of a learning organization.

The literature suggests that empowerment of teachers is key in the development of a professional learning community. When teachers are empowered, they are more willing to take on leadership roles in the building (Louis, Kruse, & Raywid, 1996). "When schools are seen as learning organizations and professional communities ... attention is focused on teachers' work as a key instrument in reform" (Louis et al., 1996).

Additionally, the literature consistently addresses the role of the principal in providing learning experiences for teachers. "The principals I know who have had the greatest impact tend to see their job as creating an environment where teachers can continually learn" (O'Neil, 1995, p.22). There is no doubt that today's ideal leader is portrayed as a democratic, community-minded leader who builds consensus around a vision rooted in agreed-upon standards for student learning, with a commitment to be accountable for results (Lashway, 2002). An early example of a case study on the principal's commitment to the notion of community and everyone in the school working toward one common good – greater student achievement – was done by Hagstrom, (1992), Denali Elementary School: Alaska's Discovery School. The primary pieces that came about at the Denali School include teachers as learners, shared leadership, and continued community.

Scribner, Cockrell, Cockrell, & Valentine (1999) investigated the development of professional communities. They found that the growth of a professional community is linked to organizational culture and strengthened when communities within communities are acknowledged. Although deeply rooted bureaucratic traditions may pose dilemmas, they say that principal's leadership is a most important facilitating or impeding factor. Lasting school improvement cannot occur if the system is not helping all people, at all levels to work on building learning organizations (Fullan).

The importance of the organization's leader in the implementation and maintenance of a professional learning community cannot be underestimated. Hord (2004) argued that without strong leaders who are willing to become learners themselves, and who empower teachers to change, a professional learning community is impossible. In a study by Richardson (2003), a correlation was found between the style of the building principal and the principal's ability to create and nurture a professional learning community. Eaker, DuFour and DuFour (2002) suggested that the difference between a traditional leader and a leader in a professional learning community is in the way in which administrators are viewed. In traditional schools, principals are leaders of teachers; in professional learning communities, principals are leaders of leaders.

Additional definitions of a professional learning community are: shared norms and values, reflective dialogue, de-privatization of practice, collective focus on learning, and collaboration, clear shared goals for student learning, collaboration and collective responsibility among staff members, reflective professional inquiry by staff members, and opportunities for staff members to influence the school's activities and policies (King and Newman (2000); Louis, Kruse & Raywid, 1996). However, there is one definition

that includes the roles of the teacher, principal, and organization into five primary descriptors:

1. School administrators participate democratically with teachers sharing power, authority, and decision making.
2. Staff share visions for school improvement that have an undeviating focus on student learning and are consistently referenced for the staff's work.
3. Staff's collective learning and application of the learning (taking action) create high intellectual learning tasks and solutions to address student needs.
4. Peers review and give feedback based on observing each other's classroom behaviors in order to increase individual and organizational capacity.
5. School conditions and capacities support the staff's arrangement as a professional learning organization. (Hord, 1996).

Without principal support for a nurturing, caring school climate, the trust required for operating in this highly collaborative way would be absent (Hord, 1996; Fusco, 2001; Gurley, 2002). Principals do three things to help teachers become reflective practitioners: (1) provide a supportive environment that encourages teachers to examine and reflect upon their teaching and on school practice; (2) use specific behaviors to facilitate reflective practice; and (3) make it possible for teachers to implement ideas and programs that result in reflective practice. Moreover, schools that are self-renewing are schools wherein teachers take on leadership roles and the principals create structures and systems that allow for this teacher leadership (Reitzug & Burrello, 1995).

Along with leadership, the conditions under which people work must also support their continued learning (Huffman & Jacobson, 2003). Senge (1990) described this requirement as having a culture that celebrates collaboration. It is clear that for over a decade, educators have agreed that schools need to incorporate teacher collaboration into their daily practices (DuFour & Eaker, 1998; Senge, 1999; Schmoker, 1999). Many say

that collaboration is the single most important factor in school reform (Schmoker, 1999; Fullan, 1991; Sergiovanni, 1994). Some even assert that collaboration in schools is so crucial that it must be mandated (DuFour & Eaker, 1998; Schmoker, 1999; Deal & Peterson, 1997). Senge (1990) makes the point that team learning results in extraordinary productivity for team members and the team itself, and suggested that the ability of a team to become super-productive rests on its ability to learn how to function cohesively through dialogue. “Senge’s book”, The Fifth Discipline (1990), “promoted the idea of a work environment where employees engaged as teams, developing a shared vision to guide their work, operating collaboratively to produce a better product, and evaluating their output” (Hord, Meehan, Orletsky, & Sattes, 1999).

Teacher collaboration makes good sense: it engages teachers in continuous learning, works to remove barriers that detain school development, and produces better solutions (Senge, 1999; Fullan, 1991; Sergiovanni, 1994, DuFour & Eaker, 1998; Hord, 1999; Kohn, 2000). In order to sustain collaboration, however, teachers need to focus on student achievement (Fullan, 1991; Giles & Hargreaves, 2006). The solution may rest in the development of professional learning communities (DuFour & Eaker, 1998; Fullan, 1999). The basic premise is that all members of the organization learn together and engage in continual renewal with the view to improving student learning (Senge et al. 2000; DuFour & Eaker, 1998; Hord, 1999; Kohn, 2000; McIlvain, 1999; Strahan, 2003).

Summary

This chapter provided the literature related to past school reforms, business and corporate models, learning organizations and professional learning communities. This research has profound implications for school restructuring, and the potential to

significantly impact teaching and learning. Systems thinking, building a shared vision, engaging in dialogue, and learning how to reflect on mental models have significant application to learning in the educational system. The researcher proposes examined a high school which was in the process of becoming a professional learning community. How the school applied Senge's five disciplines of a learning organization, was the subject of this phenomenology.

Over the past one hundred years, the many changes in American society have resulted in numerous efforts at education reform in the United States. Reform efforts in the early 1900s favored Frederick Taylor's scientific management theory. At the same time, the Classical Movement was emerging. This movement viewed the total organization, defined the term 'bureaucracy', emphasized the need for a hierarchical structure of power and expanded Taylor's theories of management. These theories had a profound and lasting impact on the way schools were organized and administered. School superintendents adopted the values and practices of business and industrial managers of that time, and because it worked for business, educators felt that applying these practices to schools would also be rewarding. On the other hand, the business world was reading the works of Mayo, Follett and McGregor who stressed the need for attention to be placed upon the human perspective in the workplace. The Human Relations Movement developed.

A review of the literature revealed that periods of school reform in the United States evolved from concerns related to the state of society or the state of the economy. The Progressive Period sought to take the schools out of politics and reorganize them from the top to the bottom. When the space race began with the Sputnik in 1954,

American's were told that the education system was inferior; therefore, Congress passed the National defense Education Act. This was the first time federal funds for education had been provided. When the Brown vs. the Board of Education cases (1954, 1956), gave control of the schools to the federal government, the Progressive Period ended.

In the 1960s there was an attempt to return to Dewey's principles of child-centered education. Then in 1964, the federal government expanded its involvement in local education through the Civil Rights Act of 1964. The Effective Schools Movement of the 1970s and early 1980s showed how schools could change in order to become more effective. Then in the 1980s, the media, religious leaders, and the general public became very critical of the public schools. In 1983, A Nation at Risk was published. This landmark of educational reform literature was the mechanism for a flood of school improvement initiatives. This period was known as the Excellence Movement.

When the Excellence Movement ended, Goals 2000 emerged. Goals 2000 provided funds to the states to develop standards and assessments. Standards-based reform came about in 1994 when President Clinton reauthorized the ESEA. Another failed approach at reform in the 1990s was the Restructuring Movement. It failed because of a misplaced focus. Current attempts at reform are the No Child Left Behind Act. This is a political strategy that is standards-based, with mandated goals, and tests that include rewards for success and punishments for failure to make AYP.

A new model proposed by educational researchers and based on significant differences, assumptions, beliefs and behaviors among school personnel is the professional learning community, inspired by Senge's learning organization concept.

This new structure would move the organization from the typical hierarchy to one in which every member is responsible for continuous learning for improvement.

Senge's business model has been adopted as relevant to the educational setting because his work stresses the importance of system's thinking. A professional learning community is a school in which the administration, teachers and other community stakeholders are committed to working together collaboratively as learners to improve achievement for all students.

CHAPTER 3

METHODOLOGY

Introduction

In 1990, Senge's book The Fifth Discipline. The Art and Practice of a Learning Organization was published. Senge suggested that all five disciplines – personal mastery, team learning, mental models, shared vision, and systems thinking - are necessary in order for a school to have a learning organization. He addressed schools as learning organizations and emphasized the notion of adult learning within an organization. Senge suggests that schools are the fundamental organizations for change if America is to achieve the vision of maximizing human potential.

The purpose of this study was to describe how Peter Senge's five disciplines of a learning organization were applied in one high school to illustrate a professional learning community. The methodology employed was an integrated phenomenology. Creswell (1998) states that phenomenological research "describes the meaning of the lived experiences for several individuals about a concept or the phenomenon" (p. 50). According to Moustakas (1994), "what appears in consciousness is the phenomenon, coming from the Greek *phaenesthai*, to flare up, to show itself, to appear... That which appears provides the impetus for experience and for generating new knowledge" (p. 26).

Indeed, no school's experience can be applied to another's situation wholesale. All schools, their situations, are unique and require their own unique combination of theories, tools, and methods for learning In our view, a learning school is a meeting ground for learning – dedicated to the idea that all those involved with it, individually and

together, will be continually enhancing and extending their awareness and capabilities. (Senge, 2000, p. 6)

The purpose of this chapter was to identify the research questions that were answered by the study. The findings were a mix of description and analysis using concepts from Senge's five disciplines of a learning organization as a means to understand more clearly the relationships within organizations which limit or support their potential to become an effective learning community. This chapter included a description of the research design, the population, the participants, the instrumentation, validation, and the data collection and data analysis procedures.

Research Questions

The primary research question guiding this study was: How are Senge's five disciplines of a learning organization applied in one selected Georgia high school to illustrate a professional learning community? The following secondary questions also guided the study:

1. What are teachers' perceptions that Senge's five disciplines exist within the school?
2. What evidence of Senge's five disciplines demonstrate that these disciplines are used in this school?
3. What is the evidence that a professional learning community exists at this school?

Methods

This study used integrated phenomenological study methods for data collection and analysis. The purpose of the phenomenological approach was to understand the essence or universal meanings of a phenomenon as revealed through the experiences of

the participants (Moustakas, 1994). The researcher chose qualitative methods over quantitative methods because ...”qualitative methods are more adaptable to dealing with multiple realities encountered at any given site”...and “more sensitive to and adaptable to the many naturally shaping influences and value patterns that may be encountered” (Lincoln & Guba, 1985, p. 40). Additionally, “Words, especially organized into incidents or stories, have a concrete, vivid, meaningful flavor that often proves far more convincing to a reader – another researcher, a policymaker, a practitioner – than pages of summarized numbers” (Miles & Huberman, 1994, p. 1). Merriam (1998) indicates that qualitative research helps the researcher explain the meaning of a phenomenon with little disruption to the natural setting in which the phenomenon occurred. This approach allowed for an in-depth exploration of the complex setting of a selected school (Glesne, 2003), and an observation of the school in its current state. This “detailed examination of one setting” (Merriam, p. 62) provided a wealth of information that was analyzed to determine the presence of Senge’s five disciplines at this school. The findings are a mix of description and analysis using concept’s from Senge’s conceptual framework as a means to understand more clearly the relationships within organizations which support or limit their potential to become an effective learning community.

Phenomenology emphasizes knowledge of the world through the study of consciousness: it assumes that phenomena have an essential essence which can be intuited through the process of “bracketing” that allows the phenomena to be studied objectively. Findings are offered through explicit descriptions. Phenomenological research derives evidence from first-person reports of life experiences or events of both

the description and meaning of the lived event or experience (Moustakas, 1994). The processes of phenomenology, according to Moustakas (1994) are:

(1). Epoche – the data gathering event. The Epoche process creates a readiness in the phenomenological researcher to be receptive to a phenomenon from its appearance and presence without the interference of preconceptions or judgment. Epoche involves collecting and gathering data. In order to achieve the Epoche, the researcher must set aside assumptions, feelings, previous experiences, and experiences, and allow “only [one’s] own perception, acts of consciousness, to remain as pointers to knowledge, meaning, and truth” (Moustakas, 1994, p. 88). The purpose of Epoche is to allow the phenomenon being investigated to “be just what it is and to come to know it as it presents itself” (Moustakas, 1994, p. 108).

(2). Reduction – the process of organizing, analyzing, and synthesizing data

(3). Imaginative variation – the testing of the findings, and

(4). Synthesis of meanings and essences – the drawing of conclusions.

Creswell (1998) identified the following phenomenological research method built upon Moustakas (1994) assumptions:

- Phenomenology is concerned with a holistic, multi-perspective vision of the experience.
- Description, rather than analyses or explanations of the experience, helps to maintain the original nature of the phenomenon being explored.
- The researcher is personally engaged and interested in the topic and is an integral part of the research process.

- “Subject and object are integrated – what I see is interwoven with how I see it, with whom I see it, and with whom I am” (p. 59).

As a qualitative study, the natural setting of the school was used as a direct source of data that allowed the researcher to examine in depth how the core subject teachers of Morris High School (a pseudonym) apply Senge’s five disciplines of a professional learning community. The term integrated defines the diversity of sources used to collect data: (a) observations (b) interviews, (c) photographs and (d) surveys (e) and documents and artifacts.

The methods of data collection were participant observation, interviews, photographs, documents and artifacts, and a survey. “Observation”, according to Lincoln and Guba (1985), “provides here-and-now experience in depth” (p.273).

The basic methodological arguments for observation, then may be summarized as these: observation (particularly participant observation) maximizes the inquirers ability to grasp motives, beliefs, concerns, interests, unconscious behaviors, customs and the like; observation (particularly participant observation) allows the inquirer to see the world as his subjects see it, to live in their own time frames, to capture the phenomenon in and on its own terms, and to grasp the culture in its own natural ongoing environment; observation (particularly participant observation) provides the inquirer with access to the emotional reactions of the group introspectively – that is, in a real sense it permits the observer to use himself as a data source; and observation (particularly participant

observation) allows the observer to build on tacit knowledge, both his own and that of members of the group. (Guba & Lincoln, 1981, p. 193).

Guba and Lincoln (1981) define “participant observation as a form of inquiry in which the inquirer-the observer-is playing *two* roles. First ... he is an observer” who is “responsible to persons outside the milieu being observed”; secondly, “he is also a genuine participant ... a member of the group, and he has a stake in the group’s activity and the outcomes of that activity” (p. 190). As participant observer, the researcher was able “to combine participation and observation so as to become capable of understanding the program as an insider while describing the program for outsiders” (Patton, 1980, p. 128). This method “allows the researcher to hear, see, and begin to experience reality as the participants do” (p. 106). Participant observation, according to Marshall & Rossman, (1999, p. 106), is to some degree an essential element of all qualitative studies”

Once the district and school were selected, a request to conduct the study was discussed with the associate superintendent and school principal by phone and by email. An initial entrance interview was scheduled with an assistant principal who, according to the principal, “was more knowledgeable” than he about common planning. The first meeting with the assistant principal included a verbal overview of the study. Written permission from the school district was granted for conducting research at Morris High School.

Five department chairs were contacted by the assistant principal and asked if they would participate in the study and recorded interviews. These department chairs were selected because they were all involved in common planning and could contribute something to the study. The five department chairs agreed to participate in face –to-face

recorded interviews with the researcher. To obtain results that were consistent, an interview protocol was developed. All participants granted permission for the interviews to be audio taped by signing a consent form.

The interviews were semi structured in nature. The participants were offered confidentiality regarding their comments. During the interviews, discussions tended to deviate from the protocol, but this was allowable when they made an informative turn. The one-on-one interviews lasted approximately 45 to 60 minutes.

The purposes for doing an interview, according to Lincoln and Guba (1985) are: “obtaining *here and now constructions* of persons, events, activities, organizations, feelings, motivations, claims, concerns, and other entities; *reconstructions* ...as experienced in the past; and “*projections*...as they are expected to be experienced in the future” (p. 268). Another purpose for the interview, according to Patton (1980), is “not to put things in someone else’s mind...but rather to access the perspective of the person being interviewed” (p. 196). Interviews are a common form of data collection in qualitative research (Merriam, 1991). “Bogdan & Biklen, (1992, p. 32) say that qualitative researchers are concerned with what are called participant perspectives and that interviewing “is used to gather descriptive data in the subject’s own words so that the researcher can develop insights on how subjects interpret some piece of the world” (Bogdan & Biklen, 2003, p. 95). According to Dexter (1970), interviewing is a conversation with a purpose, and Leedy and Ormrod (2005), say that “the actual implementation of a phenomenological study is as much in the hands of the participants as in the hands of the researcher” (p. 139). Leedy and Ormrod go on to say that a typical interview looks more like an informal conversation, with the participant doing most of

the talking and the researcher doing most of the listening. Merriam (1991) describes a continuum of the types of interview formats as ranging from “highly structured questionnaire-driven interviews at one pole and open-ended conversational formats at the other” (p. 73). and Biklen (1997), stress the importance of understanding an experience through another’s point of view. As the participant’s responded to the interview questions, the researcher listened for facts as well as opinions about events and phenomena, because as people reflect about their successes and frustrations, their mental models are revealed. Although interviews are an essential source of evidence, “they should always be considered *verbal reports* only, and subject to the problems of bias, poor recall, and poor or inaccurate articulation; therefore, it is reasonable to support the interview data with information from other sources” (Yin, 1989, p. 91).

Other sources used to collect data was through documents. Documents are a good source of data, according to Merriam (1991), because they are “easily accessible, free, and contain information that would take an investigator enormous time and effort to gather on his or her own” (p. 108). Merriam suggests that document review is an excellent source of information in qualitative research as the documents may be rich in information and can provide another view on the phenomenon under study as well as providing an objective account on some aspect of the study. The most important use of documents was to corroborate and augment evidence from other sources. According to Marshall and Rossman (1999), researchers use document review to supplement participant observation and interviewing. The use of documents, however, pose certain problems: “as possibly unrepresentative, as lacking in objectivity, as of unknown validity, and as possibly deceiving (or self-deceptive)” (Guba & Lincoln, 1985, p. 279). On the

other hand, Guba and Lincoln feel that this is not serious because it is possible to deceive one's self or others in any source of data.

The use of photography in qualitative research helps to forge "...connections between human existence and visual perception" (Denzin & Lincoln, 2003, p. 50). "Photographs record details, according to Harper (2003, p. 190), that may engage viewers to reflect upon larger cultural realities". Although a photograph is able to capture a scene, according to Newman (2006), it is alterable, open to manipulation, and may support specific points of view from the perspective of the photographer. Newman also asserts that photographs must be examined effectively for what they show and how it is portrayed. He goes on to say that reading photographs is a learned skill; and a place to start is to ask what first strikes the reader's eye. Different people may see different things in the same photograph and interpret what was seen in different ways; People, Newman posits, tend to read things into photographs, drawing upon their own experience and knowledge. He adds that not everyone will focus on the same thing and the reasons behind the choices can supply insight into one's prior knowledge and skill. A single photograph tells an incomplete story. Nor are we able to know who took the photographs, when they were taken, for what reason, under what conditions, or where these places are (Newman, 2006).

In order to acquire more information regarding teachers' perceptions, the researcher chose to give a survey. Survey results can be generalized to a larger population; surveys are amenable to rapid statistical analysis and are easy to administer and manage. The participants can be assured that their responses will be anonymous, so they may answer the questions truthfully (Leedy & Ormrod). "Researchers administer

questionnaires, according to Marshall and Rossman, (1999), to some sample of a population to learn about the distribution of characteristics, attitudes, or beliefs” (p. 129). Some advantages of the survey are their accuracy, generalizability, and convenience (Marshall & Rossman). Marshall and Rossman also write that “accuracy in measurement is enhanced by quantification, replicability, and control over observer effects” (p. 130).

Data Collection

Research Design

The design for this study was qualitative, utilizing an integrated phenomenological approach. The researcher collected data through participant observations, face-to-face interviews with a selected group of high school department chairs, photographs of the school and grounds, documents and artifacts, and a survey. The specific design was appropriate for the current study because according to Marshall and Rossman (1999), qualitative methodology is an especially powerful tool for investigating complex phenomena. Moreover, a phenomenological study attempts to understand people’s perceptions, perspectives, and understandings of a particular situation (Leedy & Ormrod, 2005). Leedy and Ormrod say that a phenomenological study tries to answer the question, “What is it like to experience such-and-such?” (p. 139). By looking at multiple perspectives on the same situation, the researcher can make some generalizations of what something is like from an insider’s perspective (Leedy & Ormrod).

Population

The researcher contacted the Laurel County Board of Education (a pseudonym) and requested the names of all schools that were following a “professional learning

communities” model or process. According to the associate superintendent, Morris High School was listed as a school in the process of implementing a professional learning community through common planning time. The population that provided data for this study was the fifty-four core subject teachers at Morris High School. They were selected because they were part of common planning. The assistant principal advised that five department chairs be a part of the interviews because of their availability, and because of their knowledge and understanding of the subject. Other members of the staff were eliminated from the population because they were not directly involved in common planning. As a former high school teacher and administrator, the researcher eliminated other elementary and middle school populations because of interest.

Profile of the Teacher Interview Participants

These interview participants were important to providing the data to answer the overarching research question and research questions 1 and 3. Five department heads were interviewed. The five department heads were enticed to participate by one of the assistant principals. These five department heads agreed to take part in individual, audio taped, one-on-one interviews with the researcher that lasted from forty-five to sixty minutes (Appendix A). The five department heads represented each of the five core subject areas: English, Mathematics, History/Social Studies, Science, and Foreign Language. All participants had participated in the learning community for the 2005-2006 school year.

The data collection techniques for this study were: observations, interview questions, photographs, document and artifact collection, and a survey. At the beginning of this study, the researcher acted as a participant observer and collected data at the

school site while looking for “recurring patterns of behavior and relationships” (Marshall & Rossman, 1999, p. 107). Additionally, as an outsider, the researcher was able to “...notice things that had become routine to the participants themselves, things which led to understanding the context” (Merriam, 1988, p. 88). What to observe was determined by the conceptual framework and the research questions. “The main outcome of participant observation is to understand the research setting, its participants, and their behavior” (Glesne & Peshkin, 1992, p.42). Participant observation allows researchers to check definitions of terms that participants use in interviews, observe events that informants may be unable or unwilling to share when doing so would be impolitic, impolite, or insensitive, and observe situations informants have described in interviews, thereby making them aware of distortions or inaccuracies in description provided by those informants (Marshall & Rossman, 1999).

The researcher used field notes as the primary way of collecting data from participant observations. Records of what was observed, including conversations with participants, and activities and ceremonies, were kept on a daily basis. Schensul, Schensul and LeCompte (1999) note that good field notes:

- use pseudonyms to protect confidentiality;
- describe activities in the order in which they occur;
- provide descriptions without inferring meaning;
- include relevant background information to situate the event;
- separate one’s own thoughts and assumptions from what one actually observes;
- record the date, time, place, and name of the researcher on each set of notes.

Observations and field- notes were obtained at formal and informal visits to the school site. Additional data was obtained during classroom and school ground observations. The

researcher made observations in areas of the school, such as vending machine areas, media center, parking lots, and cafeteria. These observations took place during the day; however, efforts were made so that the observations interfered as little as possible with what teachers or students were doing.

In this study, the researcher chose the semi structured format of interviewing. In choosing the semi structured format, the researcher was able to obtain desired information from all respondents. The semi structured interview process provided a flexible framework that allowed the participants to respond to the situation at hand, to share their experiences, and to identify the behaviors, beliefs and practices that affected their school. At Morris High School, semi structured interviews were conducted with five department heads who were involved with the common planning process. During the interviews, the researcher listened closely as participants described their everyday experiences related to the phenomenon, and was alert for subtle yet meaningful cues in participant's expressions, questions, and occasional sidetracks (Leedy & Ormrod, 2005).

Photographs provided a method of data collection of the school and grounds in order to give an indication of the school environment and culture. For this study, the researcher integrated photographs as part of the data to answer research question 2. The researcher took photographs of the school site, to include the classrooms, hallways, cafeteria, media center and exterior grounds. The researcher looked carefully at each photograph and followed Newman's suggestions by answering the following questions:

What first strikes the eye?

What structures are shown? What condition are they in? What details support these descriptions of their conditions?

What else is visible in terms of land, streets or other transportation routes, other human built things? How, if at all, are they connected to the structures?

What was not seen in the photograph?

What is this place? What is its function and what does it offer?

Once any or all of these questions were answered, the researcher produced a title or caption for each photograph. The photographs were sorted, numbered, coded, and included as part of the Data Table (Table 13).

The researcher collected and reviewed documents throughout the research study. The types of documents include: newsletters, policy documents, proposals, codes of conduct, codes of ethics, class schedules, statements of philosophy, school curriculum guides, and minutes from school board meetings. These documents were collected in order to understand how the day-to-day staff interactions affect the building of a professional learning community among teachers. Because of the wide range and number of lengthy documents that were collected, Miles and Huberman (1994), suggested that “you need to know the document’s significance: what it tells you and others about the site that is important” (p. 54). Additionally, they suggested that “it helps to create and fill out a document summary form, which can be attached to the document it refers to: (p. 54). The researcher attached a document summary form to each document collected at the site of the study. For this study, the researcher also reviewed and analyzed artifacts. These included, not only school newspapers, but art, trophy cases, methods of communication, “things that people have created”, along with ... “worn paths across the grass” and the cleanliness, and orderliness of the building (Glesne, 1999, p. 59). “The review of documents is... rich in portraying the values and beliefs of participants in the setting”

(Marshall & Rossman, 1999, p. 116). The review of documents “often entails a specialized analytic approach called content analysis” (Marshall & Rossman, p. 117). Content analysis involves a systematic and detailed examination of the contents of a particular kind of material in order to identify themes, patterns, or biases within that material (Leedy & Ormrod, 2005). The researcher identified the documents to be used for the study. It was quite large; therefore, a sample was selected (Table 13).

Instrumentation

The researcher used the 30 interview questions (Appendix A) as a guide for the interviews. Validity of the research instrument was established through expert examination of the interview questions prior to implementation. The questions were analyzed to ensure that they were related to the review of the literature and the study’s research questions. The interview question item analysis was conducted to provide the researcher with an overview of the research questions, a list of all items in the interview protocol, the five disciplines addressed by the items, the literature that supported the inclusion of the item, the interview questions for each item, and the research question that each item was to answer (Table 13).

Table 1. *A Qualitative Item Analysis - An Integrated Phenomenological Study of Teachers' Perceptions of a Professional Learning Community Utilizing Peter Senge's Five Disciplines of a Learning Organization*

<u>Item</u>	<u>Research</u>	<u>Interview Questions</u>	<u>Research Questions</u>
1. Teamwork; team learning; collaborative planning time in schools; collaboration	Mason, 2003; Cibulka, 2002; DuFour, 2004; Hargreaves & Fullan, 2002, Carpenter, 2004; Cibulka, 2002; Hord, 1999; Raywid, 1993; Senge, 1990; Senge et al., 2000. Raywid, 1993; Schmoker, 2004; Stein, 1998; Strahan, 2003; Joyce, 2004; DuFour, 2004;	1, 2, 3, 4, 5, 6,	OA, 1, 2, 3
2. Personal Goals; personal mastery	Stein, 1998; Schmoker, 2004; Cibulka, 2002; Senge, 1990; Senge et al., 2000.	7, 8, 9, 10, 11, 12, 13	OA, 1, 2, 3
3. Systems Thinking	Mason, 2003; Cibulka & Nakayama, 2002; Meehan, 2002; Senge, 1990; Senge et al. 2000	14, 15	OA, 1, 2, 3
4. Mental Models	DuFour, 2004; Wilson, 2004; Senge, 1990; Senge et al., 2000	24, 25, 26, 27, 28, 29, 30	OA, 1, 2, 3
6. Shared Visions	Meehan, Wiersma, Cowley, Craig, Senge, 1990; Orletsky, & Childers, 2002; Hord, Meehan, Orletsky & Sattes, 1999; Strahan, 2003; Mason, 2003; DuFour & Eaker, 1998; DuFour, 2004; Hipp, 2003	16, 17, 18, 19, 20, 21, 22, 23	OA, 1, 2, 3

Quantitative data from a survey was used to support findings from qualitative data (Merriam, p. 68). Based on the literature, the researcher administered a survey to the 54 core-subject teachers that could identify the existence of the specific components of a learning organization as defined by Senge (1990) – personal mastery, mental models, team learning, shared vision, and systems thinking. The survey was used to obtain information from a wider range of school personnel than those who were observed and interviewed. The survey was Dr. Steven L. Wyckoff's Learning Organization Inventory. Participation in the survey was voluntary and the responses were confidential and

anonymous. A survey was sent electronically to fifty-four faculty members who teach the core subjects (English, Science, Mathematics, Foreign Language, History/Social Studies) and are involved in the common planning time departmental meetings. The survey included only fixed responses that made it easier for the respondents to complete. The researcher chose this survey because it painted a picture of teachers' perceptions of the application of the five disciplines within the school. The survey supplemented the observations, interviews, photographs and documents and artifacts, and helped to confirm comments and earlier findings. The survey was reviewed by an assistant principal before it was administered. The survey was accompanied by an information sheet about the study. The survey was distributed to all teachers who were involved in common planning. "The survey is the preferred method if the researcher wishes to obtain a small amount of information from a large number of subjects" (Marshall & Rossman, p. 130). This study used Steven Wyckoff's Learning Organization Inventory to survey classroom teachers about the characteristics of a learning organization present in their school. In developing the instrument, Wyckoff analyzed the review of literature on learning organizations and noticed that almost all of the noted characteristics were reflected in Senge's five disciplines.

A definition and narrative description incorporating the behaviors identified in the literature review was written for each discipline. Wyckoff then listed the behaviors by discipline and wrote one or more items for each behavior with consultation from two experts in the field of survey design and development. The items in the inventory are designed to elicit responses from school employees to reveal the extent to which the behaviors associated with learning organizations are present in their schools.

Steven Wyckoff's Learning Organization Inventory instrument package included a cover letter, sent to the respondents via e-mail. They were then directed to go to a designated web site. At that web site, the surveys with instructions were provided. The cover letter explained the purpose of the study, provided an assurance of confidentiality, and stated that the survey was completely voluntary in accordance with university policies on human subject's research. The respondents completed the surveys and returned them to the researcher electronically.

Each of the questions from Wyckoff's Learning Organization Inventory was designed to represent one of Senge's five disciplines. The following chart shows the questions from the learning organization inventory that corresponds with each of the five disciplines.

Table 2. *Wyckoff's Discipline Matrix*

Senge's Five Disciplines	Learning Organization Inventory Questions
Personal Mastery	2, 23,24, 26, 28, 31, 34, 37, 21, 41
Mental Models	1, 5, 9, 12, 15, 17
Shared Vision	22, 7, 25, 27, 30, 32, 36, 20, 40, 42
Team Learning	4, 8, 11, 14, 16, 33, 19, 39
Systems Thinking	3, 6, 10, 13, 29, 18, 35, 38

An item analysis was conducted by listing all items in the survey, the concepts addressed by the items, the literature that supported the inclusion of the item, and the research question that each item was to answer (see Table 1).

Table 3. *A Quantitative Item Analysis -An Integrated Phenomenological Study of Teachers' Perceptions of a Professional Learning Community Utilizing Peter Senge's Five Disciplines of a Learning Organization*

Item	Research	Research Question
1. Personal reflection	Senge, 1990;	OA,1, 2, 3
2. Leaders encourage active learning	Hord et al., 1999; DuFour & Eaker, 1998	OA,1, 2, 3
3. Understanding the "big picture"	DuFour & Eaker, 1998	OA, 1, 2, 3
4. Teamwork	Staub, 2003;	OA,1, 2, 3
5. Collective inquiry	Hord et al., 1999; Senge, 1990	OA, 1, 2, 3
6. Holistic thinking	Senge, 1990	OA, 1, 2, 3
7. Share vision with other staff	Hord et al., 1999	OA,1, 2, 3
8. Listen/consider others' ideas	Staub, 2003	OA, 1, 2, 3
9. Change in assumptions brings change in practices	Senge, 1990	OA, 1, 2, 3
10. Consider effects when making changes	Senge, 1990; 1999; Senge et al., 2000	OA,1, 2, 3
11. Respect for each other	Stein, 1998	OA,1, 3
12. Collaboration	Stein, 1999; Hord et al., 1999;	OA,1, 2, 3
13. Consider impact on others	Griffith, 2003	OA,1, 2
14. Conflict	Strahan, 2003	OA,1, 3
15. Question decisions	Senge, 1994;	OA,1, 3
16. Acceptance of differing opinions	Hord et al., 1999	OA,1, 3
17. Trust leaders to solve problems	Johnson, 1999	OA,1, 3
18. Leaders focus on purpose and direction of organization	Senge et al., 2000	OA, 1, 3
19. Interact professionally with colleagues	Staub, 2003	OA,1, 2, 3
20. Staff sets goals	Hord et al.,1999	OA,1, 2, 3
21. Improve and grow professionally	Hord et al., 1999; Senge, 1990	OA1, 2, 3
22. Commitment to a shared vision	Staub, 2003; Senge, 2000	OA, 1, 2, 3

23. Personal desire to improve skills and knowledge	Senge, 1990	OA, 1, 2, 3
24. Personal vision of classroom and school	Senge et al., 2000	OA,1, 2, 3
25. Staff collaboration for future practices	Stein, 1998	OA, 1, 2, 3
26. Personal understanding of how class and school function	Senge et al., 2000	OA,1, 3
27. Shared belief in educational practices	Stein, 1998; Senge et al., 2000	OA, 1, 2, 3
28. Realizes lack of knowledge and skills cause distress (creative tension)	Senge et al., 2000	OA, 1, 3
29. Leadership promotes innovation	DuFour & Eaker, 1998	OA, 1, 3
30. Shared vision created changes in thinking	Hord et al., 1999	OA, 1, 2, 3
31. Realizes need for change in professional practices is uncomfortable	Oakes et al., 2000	OA, 1, 3
32. Able to share openly	Senge, 1990	OA,1, 3
33. No time to work in teams	Staub, 2003; Stein, 1998	OA,1, 3
34. Discrepancy between how classroom functions and how it should function	Noguero, 2004	OA, 1, 3
35. Discrepancy between how school functions and how it should function	Noguero, 2004	OA, 1, 3
36. Shared vision in solving problems	Stein, 1998; Hord et al., 1999	OA, 1, 2, 3
37. Discrepancy in classroom functioning motivates change in practice	Noguera, 2004	OA, 1, 3
38. Discrepancy in school functioning motivates change in practices	Oakes et al., 2000	OA, 1, 3
39. Feeling of isolation from other adults	Hord et al., 1999	OA,1, 3
40. Shared vision of school's purpose	Hord et al., 1999	OA,1, 2, 3
41. Energy focused on school and classroom goals	Strahan, 2003	OA,1, 3
42. Ability to experiment without fear of failure	Strahan, 2003	OA,1, 2, 3

Reporting the data

The focus of this study was to describe how Senge's five disciplines of a learning organization are applied in one high school in Georgia. An integrated phenomenology

was appropriate for this study since the researcher's primary objective was to describe and summarize the lived experiences of the common planning core subject teachers of Morris High School. A data table was used to characterize or summarize the entire set of data and to transform the data into a more manageable format (Table 7). Data analysis began during data collection (Glesne & Peshkin, 1992). "Data analysis involves organizing what you have seen, heard, and read so that you can make sense of what you have learned. Working with the data, you create explanations, pose hypotheses, develop theories, and link your story to other stories" (Glesne & Peshkin, p. 127). Creswell (1998) lists the following steps:

- Identify statements that relate to the topic – The researcher separates relevant from irrelevant information in the interview and then breaks the relevant information into small segments (phrases or sentences) that each reflect a single, specific thought.
- Seek divergent perspectives. – The researcher looks and considers the various ways in which different people experience the phenomenon.
- Organize the data ...using index cards, manila folders or a computer database. Break down large bodies of text into smaller units in the form of stories, sentences or individual words.
- Peruse the entire data set several times to get a sense of what it contains as a whole. In the process, jot down a few memos (e.g., writing in the margins or using Post-It notes) that suggest possible categories or interpretations.
- Identify general categories or themes, and perhaps sub-categories or sub-themes as well, and then classify each piece of data accordingly.
- Integrate and summarize the data.

Bogdan and Biklen (1998) describe the process of qualitative data analysis as like a funnel where "things are open at the beginning (or top) and more directed and specific at the bottom" (p. 7). Data analysis will involve summarizing data into themes and categories using procedures recommended by Miles and Huberman (1994).

As the researcher collected data, and throughout the entire process, analytic memos were written as previous theories were reevaluated and old and new data were

compared (Bogdan & Biklen, 1992). These reflective notes recorded what the researcher was learning from the data. Documents were examined for the specific meanings they had in relation to the study. The text from interviews, observational notes, and memos were typed into word processing documents. Photographs were printed and analyzed for the specific meanings they had in relation to the study. These transcriptions were then analyzed. Three educators, experienced as researchers in their profession, were asked to review and evaluate the analysis of data. “The researcher does not search for the exhaustive and mutually exclusive categories of the statistician but, instead, identifies the salient, grounded categories of meaning held by participants in the setting” (Marshall & Rossman, 1999, p. 154).

The following steps outlined by Moustakas (1994) were used to analyze and code the transcribed interviews of the research participants:

Listing and Preliminary Grouping. According to Moustakas, (1994), in analyzing phenomenological data, procedural analysis begins by horizontalizing the data, or regarding every horizon or statement relevant to the topic and question as having “equal value as we seek to disclose its nature and essence” (p. 95).

Reduction and Elimination. Moustakas describes phenomenological reduction as a process used to determine the invariant constituents, or the nature and essences, of the expressions listed through horizontalization. Reduction does not mean shortening or condensing. It means a state or condition of phenomenological seeing and reflective understanding. Therefore Moustakas (1994) urges researchers to subject each statement or expression identified in the preliminary listing process to two requirements:

1. “Does it contain a moment of the experience that is a necessary and sufficient

constituent for understanding it?” (p. 121).

2. “Is it possible to abstract and label it? If so, it is a horizon of the experience...

The horizons that remain are the invariant constituents of the experience”

Overlapping statements are identified and eliminated, revealing unique and distinct horizons and the beginnings of a rich, thick description of the experience.

“The final result of a phenomenological study is a general description of the phenomenon as seen through the eyes of people who have experienced it firsthand. The focus is on common themes in the experience despite diversity in the individuals and settings studied” (Leedy & Ormrod, 2005).

The researcher began by coding the information obtained from the interviews, then listing and grouping the transcribed interviews, searching for themes and regarding each statement as relevant. After several attempts at reduction and elimination, the researcher was able to list the themes that were descriptive of the participants lived experiences. The goal was to separate the data and rearrange it into categories. Merriam (1998) suggests five guidelines for developing categories. She says that each category should: (1) reflect the purpose of the research; (2) be exhaustive; (3) be mutually exclusive; (4) be sensitizing; and (5) be conceptually congruent.

Once the interviews were transcribed, they were analyzed through data reduction and elimination using key words for codes that came from the interview protocol and Senge’s five disciplines. The codes that were developed were related to Senge’s five disciplines of a learning organization. These codes were then merged into categories related to Senge’s five disciplines; personal mastery, mental models, team learning, shared vision, and systems thinking.

Through codifying, data reduction and elimination, themes emerged related to the five disciplines of a learning organization. One theme emerged outside the five disciplines.

Data Table

A data table was developed by the researcher to organize the findings from observations, interviews, photographs, documents and artifacts, and a survey. The researcher framed Senge's five disciplines as the organizing tool to report the data. This tool was used to respond to the research questions (Table 14).

Researcher Bias

"Bias is any influence, condition, or set of conditions that singly or together distort the data" (Leedy & Ormrod, 2005, p. 208). During this study the researcher's role has been to interview, to observe, to survey and to collect data from teachers about their perceptions of their school as a learning organization and whether Senge's five disciplines are in place. The researcher's bias is represented by former identities as a teacher and administrator. Additionally, the participant observer method involved the researcher; therefore, bias is addressed by the nature of the methods of the participant observer role. According to Creswell (1998), "In this clarification, the researcher comments on past experiences, biases, prejudices, and orientations that have likely shaped the interpretation and approach to the study" (p. 202).

Summary

The purpose of this qualitative study was to describe the perceptions of teachers in a high school regarding the presence of behaviors associated with Senge's five disciplines of a learning organization. The research method used was phenomenology. This chapter

described the research design and methods used in this study for collecting data, sources of data, and data analysis. Data was collected through an integrated phenomenological method of observation, interviewing, photographs, document and artifact collection, and a survey that collected quantitative data to supplement other data. As participant observer, the researcher collected data by recording observations as field notes. The researcher conducted semi structured interviews to gain an understanding of the phenomenon of professional learning communities from the participant's lived experiences in participating in common planning. The recorded interviews were transcribed and coded for recurring patterns and themes using reduction and elimination. The researcher took photographs as data and analyzed the photographs for content and the meanings they had to the study. Document and artifact collections were analyzed for the specific meanings they had to the study. After analysis, all data was placed on a data table with Senge's five disciplines as the organizing tool.

CHAPTER 4
REPORT OF DATA AND DATA ANALYSIS

Introduction

Peter Senge, in his book, The Fifth Discipline, stated that the people who were in the best position to improve an organization's productivity were the people who currently did the work of the organization (1990). The literature relevant to school reform was clear about the importance of school staff personnel working together to increase organizational results. Today's educators are paying attention to the quality of the relationships that exist among staff members, administrators and students (Hord, 1997). The goal of this qualitative study was to describe the perceptions of teachers in a high school regarding the presence of behaviors associated with Senge's five disciplines of a learning organization. The research method used was phenomenology. The research focused on the lived experiences of the teachers in one high school and the narratives they told of their experiences at the school. Each of the findings presented in this chapter was derived from an analysis of documents and artifacts, photographs, field notes from observations, quantitative data obtained from the Learning Organization Inventory and qualitative data obtained from interviews conducted with teachers at the school site. The data gathered were used to respond to the following research questions:

The overarching question for this research was: How are Senge's five disciplines of a learning organization applied in one selected Georgia high school to illustrate a professional learning community? The following secondary questions guided the overarching research question:

1. What are teachers' perceptions that Senge's five disciplines exist within the school?
2. What evidence of Senge's five disciplines demonstrates that these disciplines are present in this school?
3. What is the evidence that a professional learning community exists at this school?

Findings

First of all, in order to provide a profile of the school, the people, the principal, the teachers, and the classrooms, the researcher organized the data from observations, documents and artifacts, and photographs. Secondly, in order to ascertain the teachers' perceptions of Senge's five disciplines that exist within the school, the researcher organized data from interviews and surveys. The data is reported using Senge's five disciplines as a framework. In order to determine the evidence of Senge's five disciplines within the school, the researcher used data from observations, documents and artifacts and photographs. Next, in order to determine the evidence that a professional learning community existed at this school, the researcher blended the findings from the research questions 1 and 2. Lastly, in order to answer overarching research question, the researcher blended the findings from research questions 1, 2, and 3. The data is reported using Senge's five disciplines as a framework, and the data is displayed on a data table that is located at the end of this chapter (Table 14). This table was designed, based on the findings by observations, interviews, photographs, documents and artifacts, and a survey, and used to respond to the research questions.

To respond to research question one, the researcher reported findings from surveys and interviews. The researcher identified six major themes that emerged from the interviews. These themes emerged from the interviews with five department heads who agreed to sit down with the researcher for a one-on-one audiotaped interview. One theme emerged beyond Senge's five disciplines (Table 14). Findings from data analysis are reported in this chapter.

Secondly, to respond to research question 2 and report the findings, the researcher analyzed data through observations, photographs, and documents and artifacts. The researcher was granted permission to photograph the grounds of the school, the school's interior, to include classrooms, hallways, and public meeting areas. Documents and artifacts were accessed from the school's web site. The researcher was invited to observe classroom teachers in their classrooms. An analysis of the observations, photographs, documents and artifacts, provided the evidence that demonstrates the presence of the five disciplines at this school. Findings are reported in response to the research question. To respond to research question 3 and report the findings, all data from research question 1 and research question 2 was blended to report the findings. To respond to the overarching research question, all data was blended to report the findings (Table 14).

In this section, the data analysis from the observations, interviews, photographs, documents and artifacts, and surveys, will be blended to report the findings (Table 14). The researcher provided a profile of the school, a profile of the principal, and a profile of the faculty at Morris High School:

Profile of the School

Morris High School, established in 1988, is located on twenty-five acres of land in a rapidly developing suburban area in Georgia. The high school is centrally located in the community it serves and is bounded by several subdivisions and quiet streets. Morris is one of four high schools in the Laurel County School system. It was built to ease the overcrowding in another school. Morris' parent population is largely employed by several local industries. Per capita income and median housing value in Laurel County are the highest in the metro area. Parents of Laurel County students view education as a priority and maintain high expectations for the school system (Table 7).

This study was conducted during the 2005-2006 school year. There were 1,590 students enrolled at Morris in grades 9 through 12 at the beginning of the school year 2005-2006. Student demographics of the school year 2004-2005 are presented in Table 4. Student Demographics of the school year 2005-2006 are presented in Table 5. The number of students attending Morris increased in 2005-2006 from the previous year along with the number of students on free and reduced lunch. According to the interview participants, the majority of the students come from middle and upper class homes. During the 2004-2005 and 2005-2006 school years, the school was a predominantly White school with small percentages of Black, Asian and Hispanic students. The data supports the interview participants' perceptions that Morris serves a variety of socio-economic levels; however, district statistics show that in the past year, the number of students identified as economically disadvantaged has increased from 12.9% to 14% of the student population (Tables 4 and 5).

Table 4. *Student Demographics 2004-2005*

1494	Students
76%	White
10%	Black
8%	Asian/South Pacific
2%	Hispanic
12.9%	Free and Reduced Lunch Rate

Table 5. *Student Demographics 2005-2006*

1,590	Students
78%	White
11%	Black
9%	Asian
2%	Hispanic
14%	Free and Reduced Lunch Rate

The student population, while predominantly upper class, consists of a wide range of socio-economic variance, as well as academic abilities. Although the school was built to answer the demands of a burgeoning area, Morris has served as a primary catalyst for further residential development a.m.) The Morris High School community is undergoing a housing transition. As a result, some students live in the new low-income housing areas that are being built in this once sheltered community (Table 7).

The students identified as economically disadvantaged has increased to 14% in 2005-2006. In the past five years, this demographic has increased from 4.52% to 14% of the student population who receive free and reduced lunch in Table 6.

Table 6. *Percent of economically disadvantaged students from 2000-2005*

YEAR	PERCENT ECONOMICALLY DISADVANTAGED	CHANGE
2005	12.9	+3.83
2004	9.07	+1.43
2003	7.64	+0.32
2002	7.32	+1.54
2001	5.78	+1.26
2000	4.52	

The hallways were immaculate, and reflected a commitment to provide the students with an emotionally and physically safe environment. The observations, documents and artifacts, and photographs provided evidence of the culture and climate at Morris High School. And based on this evidence, the researcher found that the school was located in an affluent suburb; the school and grounds were well maintained; however, the most recent statistics showed that the demographics were changing. In fact, there had been an increase in the number of students on free and reduced lunch. And according to a conversation with one custodian, things were beginning to change. The

school administrative offices are all located in a central area across from the cafeteria. Several feet behind this entry are the associate and assistant principals' offices. All of the administrative activity takes place in this area, reflecting a centralized, highly visible form of leadership (Table 13).

Profile of the Principal

Although there is a separate entrance from the outside area of the cafeteria that leads to the principal's office, the researcher is guided through a different route for insiders, located down from the other offices. The principal's office is located behind this office. He has been at Morris for three years. Before his hiring, the principal who opened the building eighteen years ago, remained in his position for thirteen years. After two principals with very short terms, the current principal became the fourth principal of Morris High School in 2003. This is his third year. He is of average height, slender, and greets people easily. He has a degree in administration and is working towards his doctorate at a regional university. "So, you're what all the questions have been about this morning. They (the teachers) thought you were someone from the district office", he said to the researcher with a smile (Table 13).

Profile of the Faculty

Morris High School employs over one-hundred teachers. Fifty-four were core subject teachers. Forty-two percent responded to the survey. The teachers were friendly and accommodating. Their casual yet professional attire stood out from students' trendy jeans and tee shirts. The isolation of classroom teaching unfolded during a tour of the building. All classroom doors were closed except for special education classes that shared adjoining rooms. Foreign language teachers' classrooms had been relocated to an area

where the entire department was in the same corridor. Teachers referred to this area as a “pod”.

Summary of Findings

Findings provided by a profile of the school, a profile of the principal, a profile of the faculty, observations, photographs and documents and artifacts indicated that the teachers appeared responsive and respectful of students. They interacted with students in a positive and caring way, and communicated enthusiasm. Although some teachers used non-traditional seating, most classrooms were traditionally arranged. Communication between teachers, administrators, students and parents was conducted through email, newsletters, newspapers and annual reports. Information surrounding the many different facets of school life may be found on the school web site. Clearly, most teachers did not have mixtures of students or struggle with discipline problems. The bright students received special attention and prestige from the school and the community.

Responses to Research Questions

1. What are teachers’ perceptions that Senge’s five disciplines exist within the school?
2. What evidence of Senge’s five disciplines demonstrates that these disciplines are used in this school?
3. What is the evidence that a professional learning community exists within this school?

To answer these questions, the researcher learned that in the fall of the school year 2004-2005, the school district initiated common planning in all of the schools. Therefore, this study was done during the second year of common planning in the 2005-

2006 school year. The researcher found that the five disciplines were not present in the school on an organizational level; therefore, this school is not a professional learning community. These findings were based on data collected from five one-on-one interviews and responses to a survey administered to twenty-two teachers. These findings provided the researcher with information on teachers' perceptions of the presence of Senge's five disciplines at Morris High School. From these interviews, six themes emerged: (administrative support; self- reflection; common planning time; curriculum/student achievement; collaboration; and barriers). The findings from the interviews and surveys are reported using Senge's five disciplines as a framework. The interview participants are identified by numbers: #1, #2, #3, #4, and #5.

Table 7 displays the correlation of the survey items to the five disciplines.

Table 7. *Correlation of Learning Organization Inventory Items to the Five Disciplines of a Learning Organization*

	Mental Models	Personal Mastery	Shared Vision	Team Learning	Systems Thinking
Survey questions	1,5,9,12, 15, 17	2,21,23,24 26,28,31,34 37, 41	7,20,42,22 25, 27, 30 32, 36, 40,	4,8,11,14 16, 19, 33 39	3,6,10,13 18, 29, 35 38

Research Questions 1 and 2

Senge's Discipline of Personal Mastery

To understand teachers' perceptions of personal mastery, the researcher along with an expert, developed the following seven questions:

What are your professional goals?

“Next year I will be teaching. I’m also going to be department chair at in another district. I was department chair here. Professionally, I teach at ASU. I will continue doing that. Everything has kind of fallen into place, so I have no inclination to enter administration or anything like that. I want to stay in the class room; so basically, I really think I’ve got it all right now. I just recently completed my specialist degree and so in terms of furthering my education, this year I want to focus on the AP curriculum and get that where I want it to be and then move on to pursue my PhD the next year. So I will probably go to Georgia State University. That’s what I’m looking at right now.” (#1 May 23, 2006 – p. 2)

“As far as titles or positions, I enjoy my time in the classroom. I really enjoy being in the classroom, and you say a professional goal, well it used to be...be the best you tried to be, continue to learn. Maybe down the road, get into administration, but I’ve got 10 years. Maybe I can get to where I can, get out and get that nice retirement. I enjoy my time in the classroom. I enjoy work working with the teachers on this level. As an administrator you don’t get to work with them like that.” (#2 May 23, 2006 –p. 2)

“My professional goals are to avoid administration as much as possible. I’m a classroom teacher and I like being a classroom teacher. My professional goals are to continue to improve my classroom teaching, to broaden the depth of my understanding of the material that I teach and to teach as many different classes as I can in the next 10 years and try to rotate every couple of years so I don’t completely lose my abilities and I don’t completely lose touch with teaching.” (#3 May 23, 2006 – p. 2)

“I am a teacher and that’s all I am. I’ll be starting in January working my doctorate at the University of Georgia...if they accept me...I have applied.(#4 May 24, 2006 – p. 2)

“I will complete my masters in Leadership in June. I don’t like to grade papers. I like teaching; I like the kids. I’m about done with the lesson plans and standardized tests. I just think there are an overwhelming amount of extras. Unfortunately, all of that other stuff gets in the way of teaching. I do plan to get my specialist in administration. I figure while I’m crazy, I might as well. I would like to stay in education. My parents were educators. I have 3 young children in this county and we will follow through here. I will probably keep doing it, but it is getting tougher and tougher.” (#5 May 24, 2006 –p. 2)

What are your personal goals?

“To relax more...And to have more family time. I tend to be all work and no play and that has not been good for me with my family. So, basically, time. Time is the issue. I want balance in my life. I guess balance is really the word. So

balance in my life, spending time with people I care about, maintaining contact with my friends here, just staying in contact with people. When I left _____ High School 4 years ago, I was sure that I would maintain contact with those people and I don't. Occasionally I e-mail. I drive by there every day on the way home and never have time to stop. .. So slowing down a little bit and having balance in my life, is a goal." (#1 5/23/06 – p. 2)

"Just to be around... We (my wife and I) are comfortable with the way things are." (#2 5/23/06 – p .2)

"My personal goals are to get tenured here at this school. I'm an outdoor person and I practice martial arts. We have a club here that I sponsor for outdoors. I would like to encourage them to do that. My daughter is 18 and she is leaving to go off to college so I want to establish a new life with my wife without children, and it takes time. We have worked very hard for her and now that she is going off to school we can start to do things for our relationship." (#3 5/23/06 – p. 2)

"My personal goal is to be with my family, but time adds a lot to my job. I put a lot of time and effort into teaching. Raise my 3 little girls, have fun this summer and finish up my masters so I can have a break." (#5- 5/24/06 – p. 2)

All of the teachers said they have professional and personal goals. They have a desire to improve professionally. The teachers desired more time to spend with the family; they want to become tenured; and they want to return to school for a higher degree.

When the teachers' were asked:

Does this school encourage you to work toward your goals? And what do the administrators do to help you accomplish your goals?

"Yes. The administration is often looking for things like common planning, vertical teaming, and professional community ideas for us to continue to grow". (#3 – 5/23/06 p. 4)

"Oh, definitely. ...If I want to do something, they will come up with the funding. They (the administrators) are behind us 100 %" (#5 – 5/24/06 p. 5)

"Yes. Last year when I was working on my specialist, they let me leave early to go to class. That's very good support". (#4 – 5/24/06 - p. 2)

“They give us opportunities and they are very supportive. They work well together, and Mr. Stobie (pseudonym) is definitely hands-on”. (#1 - 5/24/06 – p. 3)

“This particular group is encouraging verbally, and is always interested, or seems to be interested in what we are doing individually and will talk to us about that. ... They provide...opportunities for us to travel, to go to conventions, to go to meetings and will pay for those and offer the money”. #3-5/24/06 – p.4.)

“They provide you the time you need. They write letters of recommendation. They encourage you to pursue, to keep going. They are very supportive”. (#4-5/24/06 p. 4).

“Everything; any resources I need; support” (#5 May 24, 2006 – p. 5)

“This principal’s leadership style is a commander on the bridge, everybody does their job. He only intervenes when he needs to, and it’s more of a PR job for him than a company commander’s job.” (#3-5/23/06- p. 1)

The teachers responded that the administrators provided time for and encouraged teachers to increase their skills and knowledge.

“The administration is often looking for things like common planning, vertical teaming, and professional community ideas for us to continue to grow”. (#3 – 5/23/06 p. 4)

“If I want to do something, they will come up with the funding. They (the administrators) are behind us 100 %”(#5 – 5/24/06 p. 5)

“The principal walks around during cooperative planning to see what we are doing. He came up with this calendar and sat down with us and said “Let’s put it on the calendar” and he said, “Hey, I can come up with some money,” so he was in on it, too. So our collaborative planning sessions are not just – I know at other schools in the county they meet for ½ hour and call it collaborative planning. It is not that here. Big things grow out of collaborative planning. They even have teachers who get together and all walk around and see what is going on.” (#1-5/23/06- p. 3)

“They give us opportunities and they are very supportive” (#1 5/24/06 – p. 3)

“They provide...opportunities for us to travel, to go to conventions, to go to meetings and will pay for those and offer the money”. #3-5/24/06.)

“They provide you the time you need. They write letters of recommendation. They encourage you to pursue, to keep going. They are very supportive”. (#4-5/24/06).

The emerging theme from the teachers’ perceptions of personal mastery from interviews was administrative support. The teachers responded that the administrators were very supportive of teachers’ attempts to create curriculum and are willing to provide the necessary resources. The administrators also support teachers working on higher degrees. The data collected from the teacher surveys report the following:

Survey Item: 2. at my school, I am encouraged by leaders to acquire skills and knowledge that help me to improve professionally.

Findings: The data shows percentages of teachers believing that their leaders encourage them to improve their skills: 81.9% say they encourage them

Survey Item: 21. I work to improve my professional knowledge and skills.

Findings: The data shows percentages of teachers who believe that they work to improve their skills 95.4% say they work to improve their skills.

Survey Item 23: I have a desire to improve my professional skills and knowledge.

Findings: Of the percentage of teachers, who believe that they have a desire to improve their skills and knowledge, 100% say they have a desire to improve their skills

Survey Item 24: I can see in my mind how I would like my school and classroom function to better reach my school’s desired outcomes.

Findings: Percentages of teachers who envision how their school should function to better reach the desired outcomes are: 93.5% envision their school’s outcomes

Survey Item 26: I have a clear understanding of the way my school and classroom currently function.

Findings: Percentages of teachers who say they understand how their school and classroom function – 85% agree

Figure 2 of Findings on Personal Mastery

As Figure 2 on Personal Mastery shows, more than 70% of the teachers surveyed desire and continuously work to improve personally and professionally and feel supported and encouraged by their school leadership. A small percentage of teachers feel inadequate in their professional skills and knowledge.

Table 8 reports the findings by blending the data on personal mastery. The table is organized and based on the concepts of Senge's five disciplines. Administrative support is a theme that emerged from teacher interviews. The data indicated that Administrators support common planning and provide programs, support, resources and opportunities for teachers' personal and professional growth

FIGURE 2
SENGE'S FIVE DISCIPLINES – TEACHER SURVEY RESULTS: *Personal Mastery*

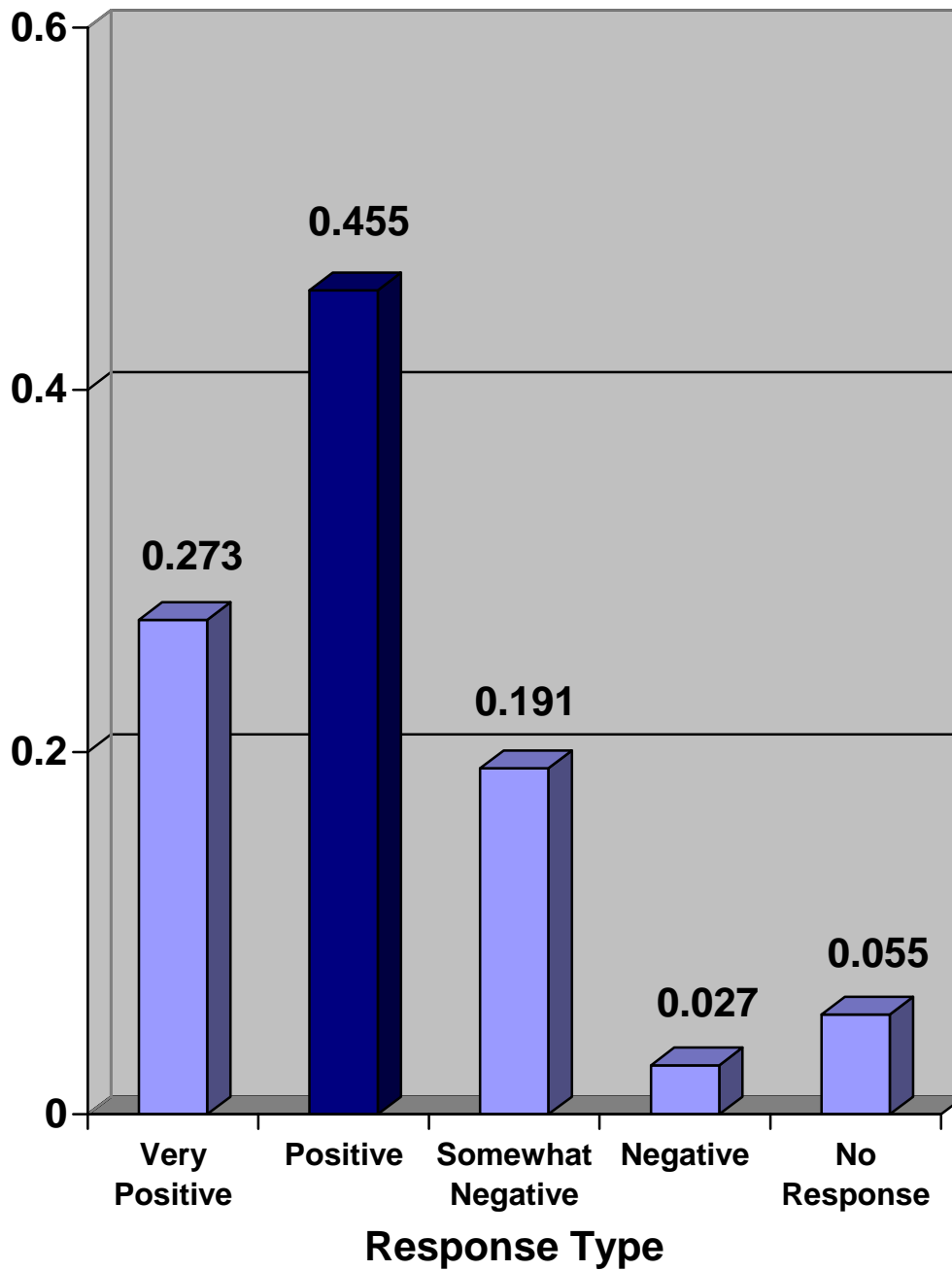


Table 8. *Senge's Five Disciplines –Personal Mastery*

Senge's Five Disciplines	Interview Themes	Photographs	Documents	Survey	Notes	Overall
Personal Mastery	Administrative Support		#24 (1) District emphasizes PLCs/site-based learning (support)	Personal Mastery 2. leaders encourage teachers	Money given to teachers for conferences	Administrators support and provide resources for teachers
(connectedness)		#18, #22, #23 Foreign Language Word walls (active learning) (collaboration)	#15 Learning Focused Schools Rubric (alignment)	21. teachers work to improve professionally	Teachers attend school #12 Classroom: teacher excited about AP training	Teachers attend professional development departmental meetings Teachers are using the LFS strategies
		# 20 Traditional seating; student focused; word wall	#19 Common Planning Memo to teachers re: schedule of meetings	23. teachers desire to improve skills and knowledge	Teachers meet to work on curriculum #11 (1) Teacher wants to be a part of common planning team	Teachers want to grow professionally and improve skills (creative tension)
		# 50, # 51 science student-centered; Senge says epitome of personal mastery is helping children decipher their passions	# 4 Departmental discussions of teachers learning needs	24. teachers have a personal vision of school	#11 (2) Class: teacher wishes to implement robotics (generativeness)	Administrators provide programs/ opportunities for students/teachers (having a vision)
		# 26 signs at main entrance; school of excellence	#24 (2) (support)	26. I understand how my school functions	# 24 District emphasizes learning communities	District emphasizes site-based learning
			#25 Professional learning goals		Time set aside for common planning	Administrators support common planning

In response to research question 2, from a series of observations, photographs, and document and artifact collection, made during the 2005-2006 academic year, the researcher found evidence of Senge's five disciplines; additionally, the data indicated that personal mastery was present on an individual level as documented and displayed on Table 8. The majority of the classrooms were: traditionally arranged with rows of desks; teacher-directed; little active and interactive learning. There are numerous artifacts in each classroom to display student success. Overall, the data indicates that: seven out of eight classrooms observed were traditionally arranged and conducted; teachers used strategies such as word walls from Learning Focused Schools' model. Documents support the evidence that state administration, district administration and building administrators, acknowledge teacher success, support common planning, and provide resources for teachers' professional learning needs. The teacher's personal mastery is tied to that of the children in the school; therefore, there is evidence of personal mastery in photographs of teachers' classrooms as student-centered and learner focused; and where creativity and passion are deciphered and explored. Photographs also showed that administrators wished to provide a safe and supportive environment, and they provided a well-maintained facility for the staff and students. Personal mastery was evident through teachers' use of the strategies from the Learning Focused Schools Model using word walls; it was evident by teachers' professional development at the school site, and through documents that discuss professional learning goals. Although there is evidence of personal mastery in documents, photographs, interviews and the survey, personal mastery does not exist at this school.

Discipline of Mental Models

To understand teachers' perceptions of the presence of mental models, responses to the following seven questions were reported and analyzed:

How do you assess your own teaching?

"I am somewhat reflective about what I am doing, what direction I need to go and again that is with the classroom in mind." (#1 - 5/23/06 – p. 7)

"Reflection, and then I have my mutual colleagues, and then I have a friend in Texas." (#2 – 5/23/06 – p. 5)

"Reflection." (#3 – 5/23/06 – p. 9)

"I try to decide if I'm being...if I say I don't like common planning, is that because philosophically I disagree with it or is it because I'm just too lazy to go do it? Or are students not engaged because they are poor students? I try to decide if my actions are a problem." (#4- 5/24/06 – p. 5)

How do you assess your own thinking?

"Progressive... because I am always thinking about how to build a better mouse trap. I know that is very nerdy, but to me, sitting around mapping – I can't wait to finish with all this, so I get home and I can take a big map out and start mapping for next year. To me, that's fine. I know I'm a nerd, but I really do enjoy that. I'm not one of those teachers who will ever say "I'm just going to pull out what I did last year and it was good enough." You have different kids. I would have never done that. You know some things work and I like that, but usually, I really like to get together with the teachers and collaborate. I've got the best job in the world. I can't imagine doing anything else.

I'm open for change, I'm looking for change. I consider myself to be very open-minded to suggestions. In any way in which I can get some help. Sometimes I think about what I am trying to get done here. I sit back. I am somewhat reflective about what I am doing, what direction I need to go and again that is with the classroom in mind. Let's get these kids taken care of. That is my main goal." (#1-5/23/06- p. 3)

How do you reflect on, examine, or think about your place in this school?

"I had to do that a lot this year. I never really thought of myself as a leader and I was kind of thrust into this role several years ago when our department chair kind

of retired (because nobody ever really retires from here, they retire and they come back part-time) so a teacher, the one I plan with, a very dear friend of mine, knocked on my door one day and asked me if I wanted to be department chair. It really wasn't that big of a deal. I was scared to death because I felt like I was working with a wonderful group of teachers that were just so professional and so incredible that I felt like I've only been here a few years, am I really ready to take this on? Well, I did and that was the best thing in the world for me because I think it caused me to constantly examine my role, for one thing, my role as a leader. I've grown a lot during the last few years, learning how to deal with people and the best ways to disseminate information and get people on board, so I'm constantly thinking about my role in terms of liaison to the administration and with teachers. I don't want to be an administrator. I don't like that whole role. So in terms of roles, it is important to me that these are my friends that I work with and these are my colleagues and I am just the liaison" (#1-5/23/06-p.)

"Sit back in a quiet moment and just jot down some of the things I have done; some of the things I need to get done in the classroom, and some of the things I hope to get done. Jim (a pseudonym), across the hallway, I go to him for things in government; for history, I go to Julia, down the hallway." (#2- 5/23/06 – p. 7)

"I just see how I fit into this school, and even though I say I'm going to try to leave this school, I know there's really no other better place to be. I reflect on it when I drive to school in the morning with my windows down and music loud and get myself ready to go." (#5 -5/23/06 – p. 6)

"I think that the model of a guild really clarifies that. I'm an independent practitioner that functions within a loosely knit group who has a common mission. Everybody in the administration is a support staff and they support what we do in the classroom and manage it. We fit in as a cog and we do whatever we can possibly contribute." (#3 5/23/06 – p. 9)

Do you have opportunities to share with others?

"Yes, yes." (#1-5/23/06-p. 6)

"Yes, we are always sharing." (#2-5/24/06- p. 7)

"Yes. In the department we always share with each other, and if I want to share my thoughts about anything, the door is wide open now." (#4-5/24/06- p. 9)

"Within common planning and with one another. If I see somebody doing something and I want to know, I ask. I ask the teacher about how she reviews for exams just because I wonder. She gave me good ideas, too." (#5-5/24/06- p. 5)

What goes on in school each day?

“It’s a busy, busy, busy place. Busy is the first thing that comes to mind. (#1-5/23/06- p. 3)

“Looking back on the past year, I think the kids when they get here, I don’t want to say they are excited. The kids realize what they need to do and they go about their business. Most of the kids go about their business, get to class on time and are ready to work.” (#2-5/23/06- p. 4)

“We have very little disruption of bell-to-bell instruction in the school. The administrators are good about that. They are good about giving us a heads up when there will be interruption in instruction time so that we can maintain our continuity and our integrity in our classrooms. To me, that is one of the most significant things that happens in this school is that we are provided the opportunity to really consistently have integrity of instruction.” (#3-5/23/06- p. 4)

“The kids get here in the morning, they kind of mill around in the commons until the bell rings. They come to their classes. If you think about all of the opportunities that are in a school, it makes me think that I missed out on my schooling. Sure the academic stuff is good, but down there is art, they are doing paintings, drawings, sculpture. In drama they are putting on plays. Technology...they are doing all kinds of stuff there. There is a lot going on.” (#4-5/24/06- p. 6)

“It’s busy – it’s a busy place to be. You’ve got the morning announcements going on, kids from here and there. I lock my door so they can’t get out. There’s teaching going on. I’ll say 85% of the time. There is a lot of assessment. It’s a good place to be. It’s competitive.” (#5-5/24/06- p. 4)

How would you define the word communication?

“Communication? Open sharing of ideas. I think in terms of having real communication in the department it is important that everyone feels like their ideas are heard and they don’t feel uncomfortable sharing in front of others. I used to have big department meetings with many people in the room. I never do that anymore, for several reasons. First of all, some people were 1st, 2nd, and 3rd, some were 4th, 5th, and 6th and I feel like I would have to call someone back to talk about one thing. So I don’t do that. But also I found that I get better communication by going around and talking with a few teachers here, a few teachers there. They will honestly tell me what they have on their mind. (#1-5/23/06- p. 3)

“The ready exchange of ideas, thoughts, but it has to be...if I’m telling you my ideas and you are not telling me yours or you are not accepting what I am saying, there’s no communication. It’s like I’m talking to the wall. You have got to be interested in what I am saying. I’ve got to be interested in what you are saying. Communication is so vital in this school, not only between teacher and administration or in our department with the teachers, but also between the kids and the teachers themselves. The kids have things they want to say. They have got ideas they want to share and I have got to give them their say-so.” (#2-5/23/06- p. 4)

“Freedom to communicate ideas and opinions. The freedom part is important. Openly.” (#3-5/23/06- p. 4)

“It is a two-way exchange of ideas.” (#4-5/24/06- p. 3)

“Communication is #1. Communication is essential to any working business, school. When you don’t communicate effectively, there is a lot of misunderstanding, cause for conflicts.” (#5-5/24/06- p. 5)

What does that tell you about how you communicate?

“I found out that communication within my department is better if I talk to people on a small scale and then share with everybody by e-mail. You know just what the consensus is, if you disagree, let me know and then I can go back and convey that information as liaison to the administration. Administration is good about using e-mail. They don’t waste your time and they are real big on not wasting time during faculty meetings and things like that, so we have no complaints about that. In terms of the dissemination of information, we’re good with that around here, but you have to be honest. You have to check your e-mails. I check my e-mails about 12 times a day because the principal is constantly communicating that way. Everybody communicates by e-mail because we are so busy, but that is one of the busyness items that drive me crazy.”(#1-5/23/06- p. 5)

“I think I am very effective as far as communicating.” (#2-5/23/05- p. 4)

“I am an open book. If people ask me my opinion, I tell them.” (#3-5/23/06- p.4)

“I think I communicate well around here. If there is something I disagree with, nobody is offensive or anything.” (#4-5/24/06- p. 5)

“I try to communicate effectively. I have never thought so deeply about sending e-mails until I sit in the associate principal’s office and watched him type and re-type. I think you need to inform people. You’re much better off when they know what is coming down the pike. You just don’t throw it at them.” (#5-5/24/06- p.4)

Describe what common planning means to you.

“Common planning means sharing. It means sharing of ideas and it means I’m not isolated in my classroom. Other groups get together and things happen. The ones that participated the most were the ones that were in that common planning session. So, just out of that one little collaborative unit planning session, grew this new tradition. This big thing just grew out of that collaborative planning session.

When you are so excited about what you came up with that you can’t wait to get back together and finish it and, of course, that sometimes creates kind of negative energy around the rest of the school. Those teachers, they are going to show the rest of us up. That creates kind of negative feelings like they are just trying to brown nose. No we’re not. We’re just excited about using the unit in our classroom, our kids are going to benefit, and our lives are going to be easier because the whole unit is planned. We know what everybody else is doing. The 11th grade teachers do their big research unit together and it was the coolest thing for me. I smiled at myself as I walked around the hall. They were always cuddled in corners, just talking about things that naturally came up as a result of common planning. Now each one of them could have done different units, but they were working together and they were sharing ideas and it was better because they all worked together and they were closer together because they had a reason to stand together and talk about something. It’s not just what novel you are teaching, it was more this whole unit needs “tweak this and tweak that”. How can we make this better next year? That’s the kind of thing it’s all about. That’s what it should be.” (#1-5/23/06- p. 5)

“Next year with GPS (Georgia Professional Standards) coming in, all of that is going to be changed. I’m still going to have to make time to allow the classroom teachers to work together on classroom material, but we are going to be focused on the GPS and that’s a whole new ball of wax.” (#2-5/23/06- p. 3)

“I think that for the same reasons we talked about earlier, it provides an avenue for communication, and it provides for continuity within our department. It provides for vertical teaming. It provides an opportunity for our assigned administrator to communicate with us on a regular basis as a group.” (#3-5/23/06- p. 4)

“I guess it should be a time for us to decide how we want to do a unit or do the year or do whatever. Everything we do in there, we do outside of there. Every morning they are collaborating. I think it is politically correct.” (#4-5/24/06- p. 4)

“Utopian common planning to me is that all participants come willingly to common planning. They bring ideas to share as well as are receptive to new ideas. That there is a climate of trust and respect. This is my utopian common planning. That they are aware and have reflected on what they are doing and know where they are lacking and can get improvement, or that they are good at

what they are doing and they want to share what they are doing to better the overall picture in the school. That's my utopian idea of common planning.” (#5-5/24/06- p. 5)

You say that things have changed around here. Why do you keep coming back to work here?

“It is an opportunity for us to get together as a department and everybody knows going in that we have a goal to get something done that day. To do something, it's not a waste of time. There's not going to be a waste of time because everyone comes in, in the right mindset and everyone knows that we have to get something done. It is also an opportunity for teachers to get with someone from their subject material and work on some plans or plan for the future. It's an opportunity. (#1-5/23/06- p. 4)

“I just like it. I like being here. Everyone in the department, we have a very easy-going...we say we are dysfunctional, diverse personalities. It all works together. We all bring something to the table that is useful.” (#2-5/23/06- p. 3)

“Because of the quality of the institution... The only thing that stays the same is that everything changes, and that's in every business and every profession. I wouldn't even consider going anywhere else in this region.” (#3-5/23/06- p. 4)

“I like it here and, I don't want to go anywhere else. If I have to endure common planning 2 or 3 times per year, that's just part of it.” (#4-5/24/06- p. 4)

“We are moving in a good direction. Well, they won't release me to teach PE. It's frustrating some days, but I like it. I'm in a good place.” (#5-5/24/06- p. 5)

“One night we came back for dinner. We said we'll come back tomorrow night and finish this unit. It was the one on media and it was a big research paper we were working on for 10th grade and we wanted to finish it. If you lose the steam, you spend 3 hours getting back into it saying what did we say about? So we came back the next night and we just brought a dinner and we sat around and finished it and got it typed and we were done. Nobody pays us for that.” (#1-5/23/06- p. 4)

The theme that emerged from teachers' perceptions of mental models from interviews was self-reflection. They responded that they were reflective and that they used reflection to draw attention to their personal beliefs and assumptions about where they fit in the school

When asked: How do you assess your teaching? They said:

“I’m open for change, I’m looking for change. I consider myself to be very open-minded to suggestions. In any way in which I can get some help. Sometimes I think about what I am trying to get done here. I sit back. I am somewhat reflective about what I am doing, what direction I need to go and again that is with the classroom in mind. Let’s get these kids taken care of. That is my main goal.” (#1-5/23/06- p. 3)

“Reflection, and then I have my mutual colleagues, and then I have a friend in Texas.” (#2 – 5/23/06 – p. 5)

“Reflection.” (#3 – 5/23/06 – p. 9)

“I try to decide if I’m being...if I say I don’t like common planning, is that because philosophically I disagree with it or is it because I’m just too lazy to go do it? Or are students not engaged because they are poor students? I try to decide if my actions are a problem.” (#4- 5/24/06 – p. 5)

‘How can we make this better next year? That’s the kind of thing it’s all about. That’s what it should be.’ (#1-5/23/06- p. 5)

The data collected from the teacher surveys on mental models report the following:

Survey Item 1: I take time to think about what happens in my classes, and how it agrees with my professional beliefs.

Findings: The data table shows percentages of teachers reflect on what happens in their classes – 100% say they take time to think about what happens

Survey Item 5: I have open and honest conversations with my colleagues about our educational practices.

Findings: The percentages of teachers who believe that they have open and honest conversations with colleagues – 95.5% say they have open and honest conversations

Survey Item 9: When my assumptions about education change, I change my practices accordingly.

Findings: Percentages of teachers who say their practices change when their assumptions about education change – 91% say they change their practices

Survey Item 12: I talk with my colleagues about changing our educational practices.

Findings: Percentages of teachers who say they talk with colleagues about changing educational practices – 72.7% say they talk with colleagues about changing practices

Survey Item 17: I trust our school leaders to solve our problems.

Findings: Percentages of teachers who sat they trust their leaders to solve problems- 77.3% agree

Figure 3 on Mental Models

As Figure 3 on Mental Models shows, more than 80% of the teachers value education and its professional worth. They trust the school leadership and 72% say they have open and honest communication with colleagues about their educational practices.

The data on Table 9 indicates that teachers reflect on teaching practices and plan units during common planning time. When it comes to asking questions of their colleagues about why they do the things they do, however, less than 70% are in agreement.

FIGURE 3
SENGE'S FIVE DISCIPLINES - TEACHER SURVEY RESULTS: *Mental Models*

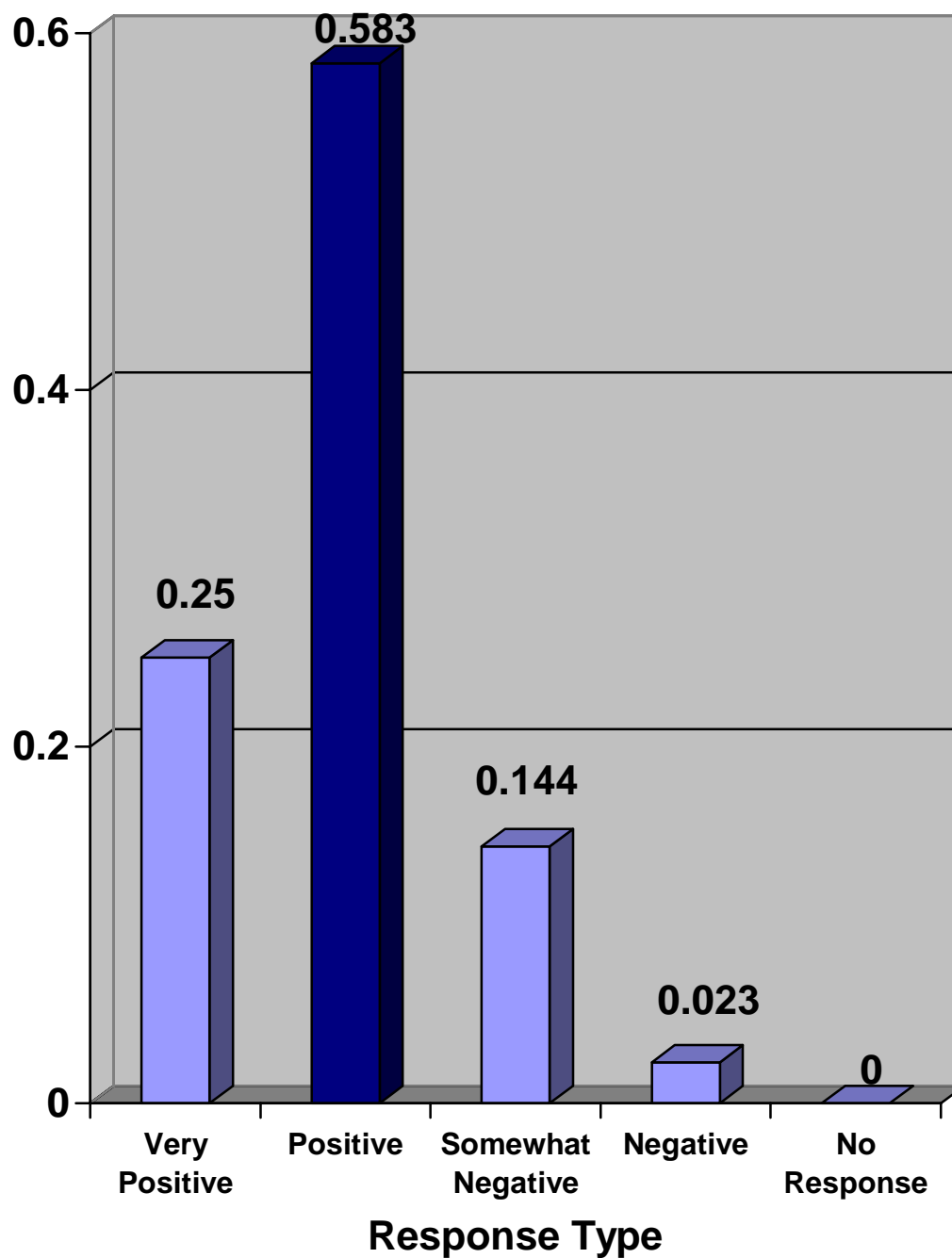


Table 9. *Senge's Five Disciplines – Mental Models*

Mental Models	Theme: Self-Reflection		# 24 (mission statement) (graduation goals)	Mental Models 1. I think about what happens in my class	Teachers reflect on teaching practices	Teachers want to help lower-level students; excited about training in AP
(love of truth) (openness)		# 25 Social Studies Black History bulletin board acknowledges diversity	# 15 (2) Learning Focused Schools (alignment) (dialogue)	5. We talk about our practices		Teachers have open/honest conversation with their colleagues
			#6 Board's goals for high schools	9. I change when my assumptions change	teachers value education	School district encourages success
(distinguishing the direct data of experience from the generalizations we form based on the data)			# 56 Georgia Performance Standards (analyzing data)	12. we talk about change	Teachers communicate within their departments regularly about their educational practices. (alignment)	Some teachers plan units during common planning time, teach the unit and reflect on the good and bad aspects of what needs to be changed (collective intelligence)

In response to research question 2, from a series of observations and document and artifact collections, the findings report that mission and goal statements were evidence of mental models; however, other than goal and mission statements, there was no evidence of teachers' collective concerns about student success outside their own departments. Therefore, the discipline mental models were not applied on an organizational level. There was no indication of a collective sharing of the truth, values and goals at Morris.

Senge's Discipline of Team Learning

To understand teachers' perceptions of the presence of team learning, the following six questions were developed:

What is common planning?

“Common planning allowed us to get together as a department and to share ideas and to work on, basically to work on units because of the new Georgia performance standards that we've implemented So common planning allowed us the time to get together and talk as practitioners about what we are doing in our classrooms, to share ideas, and develop the units together, and to me it was the best thing we did this year. Our department is closer, I think instruction is better. It creates a centered synergy that we didn't have before. I think it's probably the best thing we did this year.” (#1-5/23/06-p. 1)

“Well, the way we see it; it is not too easy for us to get together. Within the department, we break out by subject area. We have teachers get together. It gives us some professional time together to pick our strategy... To figure out what's working, and what's not working. We do that a lot. We talk among ourselves about what's a good way of getting this material out. Some of us got together and we coordinated; we had similar study guides, similar questions, and similar tests. We also worked together on units where we had a power point and the three of us went around from room to room. Then we combined our classes and worked together on that. That is just an example of one of the things that we did. The main thing is collaboration - get everybody together, bounce ideas off one another. Again, what's working, what's not working, what is a better way of approaching it?” (#2-5/23/06, p. 1)

“Common planning was an idea that we would take the department and set aside 2-3 periods once a quarter, get together and talk. We already planned together and

paced together and worked together, but this would afford us time to really sit down and share our ideas, see how things are going, lock in, work on a new unit, revise tasks, do things in a collaborative way that really there is not time during the regular school day.” (#3- 5/23/06 – p. 1)

“Everybody in our department gets together to try to develop a curriculum. Officially we have met 4 times, once each 9 weeks. Unofficially, the groups are meeting all the time - daily almost.” (#4 – 5/24/06 – p. 1)

“Common planning is a collaborative endeavor that, for us, means that we share to make sure we are in the same place. We pace. Pacing is when we get together and share some assessments, and make our departmental exams. Common planning means sharing. It means sharing of ideas and it means I’m not isolated in my classroom.” (#5 – 5/24/06 – p. 1 and p. 11)

Who are the people involved in common planning?

“All of the departments have common planning sessions, and fortunately at we have a good progressive administration that develops the schedule by which each department, about every 6 weeks, I believe, had a common planning session. . . Our classes were covered by teachers who were on planning time, and by administrators. The administrators were in our rooms. They are real good about things like that. They are not immune to popping in, and they made sure that common planning happened, and all of the departments in the entire school were involved in common planning.” (#1-5/23/06-p. 1)

“Again, the entire department. All 11 of us.” (#2-5/23/06-p. 1)

“All of the faculty members in the department and then the auxiliary members, the inclusion teachers are also part of that. We try to include the inclusion teachers even if some of them only do math 2 periods a day and science 3 periods a day we treat them as a department member and that helps them stay on board with us and stay locked in.” (#3-5/23/06-p. 1)

“Originally there were 12 in the department we have broken that down into smaller segments of teachers working together.” (#4-5/24/06-p. 1)

“For us it is our 6 teachers.” (#5-5/24/06- p. 1)

Has the school changed during the past year?

“Yes. I can speak specifically about my department. We have done so many things. We have implemented the Pre-AP program, which has been huge and we sent nine of our teachers to (about half of our department, we have a large department) UGA last year to be certified in AP. They came back on fire. Our administrators said they had never seen a group of teachers so in fire, so we made

lots of changes throughout the curriculum. Our kids read more and write more now. And it kind of stirred things up a little bit in the community for awhile, specifically with teacher/parents who were concerned that we were doing things differently, but after they came in and we talked to them they understood what was going on and they really loved “on fire” to help us keep things going. They want to be a part of what is going on and as a result of that, we now have vertical team training going this summer. Some of our teachers are going to be trained in AP and then we have a team going for Vertical training for each grade up to twelfth grade level, and that will make a phenomenal difference because we don’t talk about what people have done previous years that have come before us. So GPS standards are laid out in that way. Now we are doing vertical teaming. We are talking more. We are much more a community than we used to be, and I see that as a very positive change. Our demographics are changing, and as a result we need to be talking more about what we can do to meet the needs of kids who are of a lower skill level. Our Tech Prep classes are growing and it’s really new for us. It was always a very much an academic-oriented school, and we didn’t really have many kids at that level. A huge influx of kids tends to be of a lower socio-economic background and low skill level. So we have written grants in the to buy new materials. We have received a \$25,000 grant from the board and we have purchased books that are at their level-high interest, lower reading level books. We purchased a Smart board which is technology which has listening centers. We had to kind of do an about-face and take a look at the different needs of our population and try to meet those needs. It has been met with some resistance with some of the older faculty members. You know, they see this as a premier academic school and what is happening to our program. The administration sees that shift and they are trying to be proactive in trying to develop a Cosmetology Program, and Auto Mechanics Program. I have been very vocal about the fact that we really don’t have anything for the kids who don’t feel like they belong here. They feel like they are stuck in dumb classes because they are not taking AP. This is very much an AP-oriented school, so I think that is important. I think it is important that they have a place and that they feel they belong. It is good to have an area in which they excel, and I think we will lose fewer of them if they feel like they have some reason to be here. So in that respect we are just in the midst of change.” (#1-5/23/06- p. 1)

“I can’t really say. Each year you have a different group of students come in. I think the county now is talking about changing demographics. Here at the high school the beauty of it is every 9th grade class is a new class and so that is the way we look at it. They just come on through. Kids are kids.” (#2-5/23/06- p. 1)

“We are going through a slow demographic change, but it is very slow. We had a bomb threat 2 weeks ago for the first time in 5 or 6 years and it was just based on a student writing on the wall in the bathroom - There will be a bomb in the school tomorrow - not a call-in. But you could see the demographics in the stadium. A small group of 30 Black students together singing and dancing and carrying on and then the other 1400 blended students, now it wasn’t all the black students

with that group, but that was a clear indicator of where we were and that is not a significant change, but there is different socio-economic group moving into the area because of zoning multi-family housing. Yes, in that sense it has changed a little but because we've got the momentum of tradition and the majority of the population still is in the same direction. These kids are more often than not ostracized by the rest of the community for their behaviors - their outlandish behaviors. Sometimes that is the case, but if you put that group in 1 on1 it tames them at the same time, and so they acclimate to the environment around them."

So that is what has really changed.

"That is what is changing for us, but it is not just a racial issue, it is also an overall socio-economic issue of less wealthy families moving into a community. What used to be here was pretty much all college prep. Everything was focused on college prep. Now we have to focus universally on creating and providing opportunities for students in career prep. They are not willing to do the work. They are not interested in the work. They don't see the value in the work, and we can't force them to do the work. So that is changing, and that is the direction that we are trying to head to readjust to that." (#3-5/23/06- p. 1)

"I'm not convinced that it has. Prior to common planning over and above common planning, every morning the teachers are talking to each other. We are always collaborating. It is just not under this label. (#4-5/24/06- p. 1)

"Yes, I think we are getting better with collaboration between the teachers. There is more sharing. Last year we were moved so we were all in the pod here together and that's helped make it easier. You can just pop out and ask a quick question." (#5-5/24/06-p.1)

Was it beneficial?

"No, just different, I wouldn't say beneficial, just different. Different approaches we are looking at. All of us in this department have taught elsewhere, and so what we say in our department is "kids are kids." Let's get it done. Everyone understands that." (#2-5/23/06- p. 1)

"Oh yes. It was beneficial to the department because it gave us that time that we talked about earlier. We try to do some vertical teaming with the middle school. We've got two middle schools here. Our primary feeder schools have different philosophies. The principals have different philosophies in their leadership. One school focuses on doing homework. The kids there are used to doing homework, are conditioned to it. They have mastery tests as their focus for assessment. The other middle school tends to be more focused on self-esteem, and less homework. Assessments are scaled when they take the test. If you are not passing at the end of the 9 weeks or the semester, that school tends to provide extra credit opportunities so that you can pass as opposed to mastery level. No one wants to

touch that. That's a hot potato because our principal saying to their principal, "You are doing it wrong" and he can't. And he won't, understandably. What we tried to do was to meet with them as two departments and say, "Here are the weaknesses that we are seeing from the students coming up. What the department found, what I already knew, was that it wasn't just them making that decision. It was the raw materials they were getting from the elementary schools. They were not up to - once again that demographic change - is forcing through a group of students who are not as academically motivated. That was good that we made that contact with them and their perception of the people who had been here prior (this is my 3rd year here, my 2nd year as department chair) to that there was no contact between our department and their section down there. So they were very happy that we breached the gap and used that common planning card to try to make a connection with them." (#3-5/23/06- p. 1)

"Sort of. It was long. It took us away from students, and I think it would have been just a productive if we had met by disciplines for 30 minutes after school or something." (#4-5/24/06- p. 1)

"It was beneficial. I really feel like if you take it to heart and think about it. That's really important." (#5-5/24/06- p. 1)

Who was involved in making these changes?

"Our administration, Our associate principal. He initiated the whole thing. He is very proactive when it comes to the AP situation. Our administration is very focused on the students here, and they want more kids to be exposed to the AP curriculum, because statistics show that they will be much better in high school if they are exposed to that curriculum. So, because of that, we are willing to have students with fewer high scores. That has met with some resistance, too. So far, all the faculty members say "Wait a minute. You know our numbers are going to drop." Our administration says, "We know our numbers are going to drop, but we want to open the doors and let more kids have choices. The worst that can happen is that you don't pass the test, you know. So hopefully we are preparing them, and we are hoping to see our numbers increase as these 9th and 10th graders who in pre-AP build the skills that they need. Hopefully, they will feel comfortable taking AP classes in all of the other disciplines because they'll feel they've got the skills necessary to do this, and our guidance counselors are encouraged to encourage them to give it a shot rather than excluding them. But what that takes is an administration that is willing to say "No, our numbers are going to drop and that's OK." And that's what it takes, and a dedicated department. They started with this department because we just tend to be really excited and enthusiastic about things like that, and this has been just wonderful. So I think it has made a huge difference in that." (#1-5/23/06- p. 1)

"As the department chair, I am the one that facilitates. Generally, what I do is, before we break out we have a 3 hour session. We spend about 30 to 45 minutes

talking about something that's in general education or in general to social studies and then we break out. We track down articles. We did it a couple of times on discipline, then we had another one about this research about gender classes and as you know, all of the middle schools are going through that. The idea is if boys learn better in an all boy environment, do girls... We looked at that. We discussed that. Not that all of that is applicable to our situation, but again, we just talk about trends in education. It keeps us fresh." (#2-5/23/06- p. 1)

"I think it was a scholastic journal issue. Several of the principals have read things in their professional journals saying that common planning is a good direction to go. It improves and generally unifies the department and one of the things that we found is that if we are all on the same page, it is very hard for parents to find differences between classes and then argue that one teacher is better than the other or worse than the other or harder than the other. We say this is the test we give to all 11 sections. We are all paced the same. We are not going too fast. This is tried and true. It gives us a strong foundation to approach the community, and they respect us for that as opposed to it being a sore spot. The source comes from the principals. It was an assistant principal initiative." (#3-5/23/06- p. 1)

"Somebody in administration. Someone in this building." (#4-5/24/06-p. 1)

"Mainly, the associate principal. It was his brainchild, but then the departmental administrators were generally over it." (#5-5/24/06- p. 1)

Clearly, the teachers are not sure of how the common planning initiative came about.

They mention the assistant principals as the source.

How were they involved?

"We have general discussion and then we have a breakout again. We go to individual subject areas."

When you break up into those individual subject areas, is there a facilitator for those groups?

"Generally, what we do is put one teacher from each subject within our department in each group. It is a partnership. There was a psychology teacher who had been teaching longer than the other ones, so she kind of took the lead. Someone just kind of steps forward and they do well with that." (#2-5/23/06- p. 1)

"The administrator that is over the department usually attended, or at least was there for a portion of the time. He usually never stays the whole time. I think mostly he just wanted to see if we were on task." (#4-5/24/06- p. 1)

Tell me your perceptions of these changes.

“I’m known as the cheerleader. People literally call me the cheerleader, so you hear very positive things from me because I think we are just on target. I’m exhausted. As a department chair, it’s been an absolutely exhausting year because we have made so many changes, and there was just so much to do... And trying to get things approved at the board level. I have to be honest here, I feel frustrated that at the upper administrative level, the county administrative level, we didn’t do something like making the high school a vocational school instead of building a comprehensive high school for our next new high school. We should have built a vocational high school. I feel strongly we should go to that. I’m on a committee that very strongly advocated that but just in passing. I don’t think the mindset of the community in is ready to accept that we have enough kids that need a technical education. There’s no shame in that. But here, craftsmen are not looked highly upon. In this community you have to be a doctor or a lawyer or you’re nothing. I think if there’s a negative I have to say, the community’s mind set needs to shift, and the Board of Education’s mindset has to shift, and we really need a vocational high school in this county. But, because they voted not to do that, our administration has been real proactive in pushing for that. They recognize that. And they are very supportive and proactive. The things kids say they want... and kids will tell you this is what we want to do. We don’t have that.” (#1-5/23/06- p. 1)

“The common planning for us has been good. Again, what we used it for was teacher enrichment, sharing of ideas. It was good. The problem that we ran into is that we had a number of teachers this year teaching subjects they had not taught before. So the common planning was needed, and it was very beneficial. Now what I see happening for us next year is with the GPS, we are going over to GPS - Georgia Professional Standards. I myself am going to be facilitator for that. I’ve got to go at the beginning of the school year, and it is a whole year process. Common planning will evolve around next year the first part of the meeting - the 30-45 minutes is going to have to be general GPS standard material that I have to cover with them, and then we will be able to go to the second half where we will break up by subject. The main gist is going to be GPS and how it applies. That is what we are looking at.” (#2-5/23/06- p. 1)

“Half of the faculty members here have been here since the opening of the school and so they are still functioning under the first 15 years of the school being run by one principal for those 15 years. Twelve, maybe it was twelve, but this principal has been here for three now, and before him there were two interim principals, but before that one principal had been here since the opening of the school. He had a very different style of leadership from the current principal.” (#3-5/24/06- p. 1)

“Let’s do it on paper. But I don’t see how it improves the structure and it was time way from students.” (#4-5/24/06- p. 1)

“For me some were positive. In order for collaboration to work, you have to have everybody involved and willing to work, and that’s a tricky thing. They all have to buy in and think it is important. I think we are doing better at that but without full support of everybody involved, you are not going to make the progress you should make. And for people to realize that there is a common goal and we all need to share in that goal and you’re better in your teaching, you’re better in student achievement. You can improve, but again, it has a lot to do with attitude.” (#5-5/24/06- p. 1)

Findings indicate that common planning has brought about a change in the school.

Common planning time meant working in teams and sharing ideas and lessons. Overall, the majority of the teachers’ time during common planning was used to examine curriculum, share materials, look at recent research and devise units of work. Three out of five teachers responded that common planning time was good; however, two teachers felt that there has been resistance from some teachers to this time spent working in teams.

One teacher feels that a vocational high school should be built. The theme that emerged from teachers’ perceptions of team learning from interviews was common planning time.

When teachers were asked to give their perceptions of common planning time, one teacher felt that half of the faculty did not buy into common planning. They said:

“My department specifically ate it up. We loved having a big three-hour chunk. We would have liked to even have the whole day. We had a whole three-hour chunk to roll up our sleeves, get down to it and to really do some good unit development” (#1-5/23/06- p. 4)

“Common planning means sharing. It means sharing of ideas and it means I’m not isolated in my classroom.” (#5 5/24/06 – p. 1 and p. 11)

“I think that there is some resistance to it. Overall, because we already work together, that’s not the source of dissent, but the other departments don’t have the same kind of unity or even friendship involved, and the camaraderie isn’t there. We tend to work on that in our department. Teachers tend to be independent practitioners of their own art, drawing in their own personal skills and then presenting in a manner that suits their own needs. We’ve tried to take our strengths and skills and put them into a commonly agreed upon approach. That gives us a great deal of strength and continuity in the department where in other

departments people meet for the required 30 minutes, they talk the talk that needs to be done, and then they go off into their own rooms and do their own thing. So it is something that 50 % of the staff doesn't buy into just because of that sense of independence. Plus, this school is in a transition in terms of its faculty members.” (#3-5/23/06- p. 4)

“You have to feel comfortable with the people you are working with so they are about sharing; it's where it happens here. In other departments, they don't want to do it, they think it is a waste of time, they have negative things to say and so that's why they call me “The Cheerleader.” The best things that we come up with come out of common planning. It is common planning day, we're all excited because we all get together and we're going to meet, where are we going to be and we will meet initially in the media center. It is the one time that we get together and talk about things as a group real briefly. Sometimes we will share articles and things like that. Then we break up and have our coffee and have our goodies and we just start working and when the bell rings at the end of 3rd period or the end of the day, we are always so disappointed.

The data collected from the teacher surveys on team learning report the following:

Survey Item 4: I meet with colleagues to deal with important issues pertaining to our classrooms and school.

Findings: Percentages of teachers who believe that they meet with colleagues to deal with important issues showed 80.9% say they meet with colleagues

Survey Item 8: When I meet with my colleagues, I am able to listen to their professional ideas and consider them from their point of view.

Findings: Percentages of teachers who believe that during meetings with colleagues, they listen to their ideas and consider them from their points of view showed 95.2% say they listen to their colleagues' ideas

Survey Item 11: Staff members respect each other as professionals and colleagues when we meet.

Findings: Percentages of teachers who believe that staff members respect each other showed 95.3% say they respect each other

Survey Item 14: When I meet with my colleagues to talk about educational issues, disagreements and conflicts arise.

Findings: Percentages of teachers who believe that disagreements and conflicts arise when they talk about educational issues showed that 81.8% say they happen seldom, there are conflicts

Survey Item 19: I have meaningful professional interaction with my colleagues.

Findings: Percentages of teachers who believe that they have professional interactions with colleagues showed that 95.4% say they have meaningful interactions

Survey Item 39: I feel isolated from other adults in my school.

Findings: Percentage of teachers who believe that they feel isolated from the other adults showed that 30% agree

Figure 4 on Team Learning

The survey indicated that most teachers (77.2%) value learning and respect their fellow colleagues; however, due to day-to-day issues and problems, the time for team collaboration is not always available.

Table 10 reports the data on team learning. The theme common planning emerged as teachers responded to interview questions. The findings indicated that common planning time has provided teachers the opportunity to develop social relationships, focus on other points of view and work to learn new knowledge and skills.

In response to research question 2, as displayed on Table 10, from a series of observations in the classrooms, photographs, interviews, surveys, and a collection of documents and artifacts, the researcher found evidence of team learning when the students and teachers were all involved in the common planning endeavor. First, the

teacher and the class are a team of people who meet for a mutual purpose. Second, evidence of team learning is in the photographs of teachers' bulletin boards which display student's accomplishments in making the honor roll, or writing an "A" paper. On the other hand, the data indicated that team learning was not applied on an organizational level as defined by Senge. Team learning was evident through goals and scheduled planning time for common planning and vertical teaming with the middle schools, but it was clear that the climate remains status quo, and the majority of the classrooms are very traditional.

FIGURE 4
SENGE'S FIVE DISCIPLINES - TEACHER SURVEY RESULTS: *Team Learning*

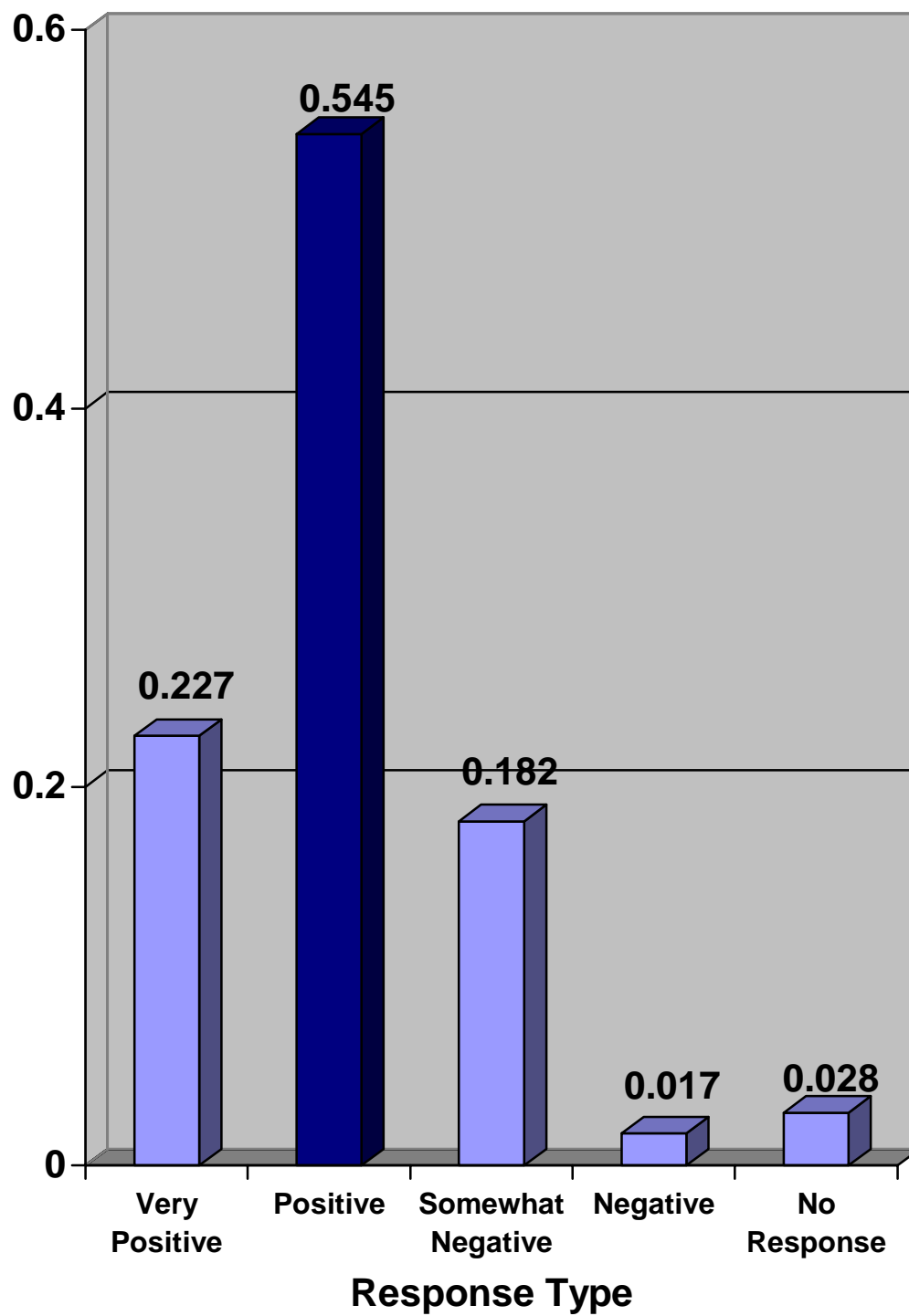


Table 10. *Senge's Five Disciplines – Team Learning*

Team Learning	Theme: Common Planning		# 25 professional goals # 15 Learning Focused Schools (3)	Team Learning 4. we deal with issues	Teachers are working to learn new standards (GPS Standards)	Proposal for collaborative planning and use of paraprofessionals and substitutes while teachers meet in two hour intervals
(alignment)			# 22 Copy of common planning dates # 24(2)	8. I listen to others ideas	Teachers brought out of isolation; act as colleagues practicing	Team members focus on other's views; functioning as a whole; a collective intelligence
			# 17 District collaboration proposal	11. we respect each other	Common planning time has provided teachers the opportunity to develop social relationships	Most teachers value team learning and respect their fellow colleagues
			#19 scheduled team meetings	19. we have meaningful interactions	Team members focus on other's views	Collaboration creates continuous learning

Senge's Discipline of Shared Vision

To understand teachers' perceptions of the presence of shared vision, the following eight questions were developed:

How do you see the big picture around here?

“That is a good question. Change is the first word that comes to mind. Some resistance to change by people who don't want to recognize that demographics are changing and we need to change what we are doing. I think it has been relatively positive, but that whole change phenomenon is kind of the pivotal crux of everything. Some people are on one side and some on the other. Some want to change. The rest who want to change see things to be in good standing, but there are some who are dragging their feet and look at the administration. They feel they are entitled to things because they have been here for a long period of time. For instance, like teaching specific classes. We need to spread it around so you don't want your retired population to teach all of your upper level classes. You want to spread that around. If they see it as see it as their entitlement, they think they have earned it. You have to have a different mind set about that.” (#1 May 23, 2006 – p. 3)

“The big picture...I think we have a good school, a good community. People want to move into the community. There is that history of prestige, there is a history of standards, and I think that even though it may be different, I think that we are still able to achieve those goals. I think the people are buying into the mentality, if you will.” (#2 May 23, 2006 – p. 4)

“I think I just sort of addressed that as being an outstanding school. I think we are in a transition moving from an older faculty. We have a reputation that attracts. When we advertise for a position we get 20 applicants. Twenty good applicants, so the people that we choose like the girl next door that we hired was a Presidential Scholar, Magna cum laude graduate from UGA who is star teacher this year and those are the kinds of people...we do the same thing in the Science Department, same thing in the English Department. We are able to bring in really high functioning, cream-of-the-crop people to replace retiring cream-of-the-crop because when they opened up the school they opened it up to the whole county, and they pretty much cleaned out the other schools and created this wonderful learning environment here. As the older people retire, we are replacing them with the same quality teachers. That is excellent. The administration understands that there is a demographic change and is doing everything they can to speed up the creeping pace and the momentum of public education to fit the needs of the changing demographics but it just takes forever.” (#3 May 23, 2006 p. 4)

“Again, the principal is the team leader. He includes the department chairs. I think he values our input. I guess the big picture is we are really trying to do the best for the students.” (#4 5/24/06 – p. 4)

“I think that departments are making progress. I think that we are really still fragmented as a school because we are so much in our departments. There is not a whole lot of cross-curriculum. We are supposedly going there. There’s just so much to be done, and there’s so many of the GPS. We are not a GPS department. We are kind of the stepchildren. We are doing better. At the meeting yesterday, I met with middle school teachers. It’s the most dialogue we have ever had between the schools, and middle school teachers that send us kids now.” (#5 5/24/06 – p. 5)

What are you trying to accomplish?

“We are just trying to teach these kids as much as we can. I think we try to get these kids involved as much as we can in many different things. Don’t get me wrong though, the academics are very important and I am talking to you now as a coach. You’ll only be young once in your life and you’re not going to play everything when you get older. Go play it all now or go get involved in it. Let’s go back to the old Pearson idea, “Idle hands are the devil’s workshops.” We keep these kids busy in good school-related functions. That will give them a sense of community-develop a sense of community and have the kids be a part of it.” (#2-5/23/06- p. 4)

“I think that pretty much everybody buys into our overall mission statement which is to create lifelong learners here. Because we have such a good faculty, everybody is able to present their content, but in addition to that, put the energy in to create and to help shape good citizens at the same time. The values, the morals here, the expectations are everything that fits into place, and so I think that is everybody’s overall goal and people who aren’t on board with that don’t stay here for very long because it is too intense and the pace is too fast and they get tired. They are not interested in it, and it is not for them. One of the good things about the way the principal handles the faculty is that if you are not happy here, he’ll help you in every way, in a positive way, to find another job. He says that regularly. If you’re not happy, please move on, and I will help you, and there are no hard feelings. I think that helps. It is a genuine offer, and he has helped people get other jobs in other places.” (#3-5/23/06- p. 4)

“The kids that are college bound- I think we are trying to prepare them for college. The others who aren’t going to college- I think those are the ones that we are still trying to figure out what we are trying to accomplish. Our demographics have changed a lot. We haven’t quite figured it out.” (#4-5/24/06- p. 4)

“Improve and increase student achievement. I think I have more of an inside picture now because I’m doing my masters. We want to take these kids from here - just because we’re good, it doesn’t mean you stop there. It means OK now how can we get better. More AP, pre-AP, raising the bar, not just standardized tests. But really looking at student learning I would say is the big picture around here. Relationships, rigor, making sure you’re challenging them. Making it relevant. I try to make it student-focused, and it really is to the point that sometimes we feel like we do too much for these kids, and they don’t realize how much.” (#5-5/24/06- p. 4)

Do you think you have the right idea?

“I do. I do.” (#1-5/23/06- p. 5)

“I think they do. I think that the administration, staff and teachers...the kids are buying into it because we bought into it.” (#2-5/23/06- p. 4)

“Yes I do. After working for six other administrations before this, this is to me the best job that I have ever had. I think that the way that they handle this faculty allows it to be a guild. And that is what we would hope for - a guild of teachers working together for a common cause, our mission statement. The way that they operate allows us to be individual practitioners within the guild as long as we follow the bylaws of the guild. People generally do.” (#3-5/23/06- p. 4)

“Yes, I think everyone is trying to figure out how to meet the needs of everybody. We are working at it to do something.” (#4-5/24/06- p. 4)

“Yes. With the right mindset and a positive attitude, I have the right idea.” (#5-5/24/06- p. 4)

How does this big picture influence what you do every day?

“When I first came here it was difficult because I taught gifted education and my students were not the AP classes and there was no connection. So I think that in the beginning I felt very squelched and isolated. But because we have made so many changes, and now we are talking to each other. From my perspective this is the place to be. This is the place to work. We are talking now. We are working together. Gifted teachers talk to other teachers and they know we are all on the same page. I didn’t feel like that when I first came here. I felt very isolated. We are definitely closer now than we have been.” (#1-5/23/06- p. 5)

“I come to school every day. I enjoy being here. Talking about down the road I’m very comfortable being here. I think I am being a part of it so I’m able to get up in the morning, get in the car and come on into school. I look forward to it.” (#2-5/23/06- p. 5)

“It makes it possible for you to come to a job where you feel good about coming to the job every day. Outside of the normal stress or fatigue, I have not experienced in three years any emotional issues having to do with the way the school functions as a unit. It is a positive atmosphere.” (#3-5/23/06- p. 4)

“I think we try to come up with ways to meet the needs of those two groups. And they really are opposite groups.” (#4-5/24/06- p. 4)

“The big picture to me is getting these kids to work for you because they like you and they like what you’re teaching, they are having fun, but they are learning. I’m big on that. Work hard and we can have fun at the same time. There’s a fine line, when you cross that line it’s not always so pretty and nice. But for the big picture, I really think it is student achievement. I want them to have fun along the journey, but I want to know they’ve walked out knowing something.” (#5-5/24/06- p. 5)

How do you use the big picture to help kids?

“The big picture, like life in general, you get these kids involved. You get involved in your own education, you get involved in your school, get involved in community. I think that the vast majority of the kids enjoy being here. Everyone’s excited about getting out for summer and all that, but I’m going to tell you, in a couple of weeks, some of these kids are going to miss school.” (#2-5/23/06- p. 4)

“By reminding them on a regular basis...part of my style in the classroom is to be a coach. I have coached athletics for the first 15 years of my career and those skills help me to be an academic coach in the classroom. They don’t have another perspective about what it’s like to go to high school. I have a very good perspective and I remind them on a regular basis. Having that experience helps everybody and many of the teachers here are aware of that - what a good learning environment they have and to remind them on a constant basis of what a good learning environment is and to point that out to them because they have no other frame of reference. The opportunities here...most teachers come before school, stay after school, go out of their way, and come to extracurricular activities. They get a great deal of support from us as a faculty, and so it makes it a much better learning environment. They really feel it.” (#3-5/23/06- p. 5)

“Last year one of the things we talked about was the relevance in relationship to the 3 R’s for the year, and I think that that was the big picture. You’re always trying to make teaching relevant, especially for the lower kids. If you don’t have relationships with the kids here, nothing is going to happen.” (#4-5/24/06- p. 4)

“Yes, I try to in everything they do.” (#5-5/24/06- p. 5)

Did you have an opportunity to share in the development of the big picture? And how were you involved?

“Yes, I was involved in curriculum. I was involved in developing curriculum. I helped with scheduling. Talking about how they should plan for these kids to succeed; tutoring and different programs they try to establish. I guess more ideas than anything”. (#4 5/24/06 – p. 4)

“Yes, we really had to know what we were doing, and how we wanted to do it, and where we wanted to be, how we were going to get there. So we really started mapping things out and looking and talking about where we were. It was the first time we had ever done that since I’ve been here... We really took a look at where we were going and we don’t want to do the same thing over and over again. We want to make some changes. So I was definitely at the forefront of making changes. I would talk to people in my department and we would get all of our ideas together and we would share with them. I definitely felt included”. (#5 5/24/06– p. 7)

“Yes, I was involved in curriculum. I was involved in developing curriculum. I helped with scheduling. Talking about how they should plan for these kids to succeed; tutoring and different programs they try to establish. I guess more ideas than anything”. (#4 05/24/06 – p. 4)

If you’ve got an idea, how do you communicate it?

“I would go wait in line outside of the associate principal’s door along with everyone else, you wait outside his door. I don’t know how the man gets anything done to be honest with you.” (#1-5/23/06- p. 5)

“Out here in the hallway... between classes is where we do some of our best brainstorming. We are all supposed to be at our doors, and as department head, I walk up and down the hall every once in awhile and if I’ve got something, I’ll bounce it off somebody...say, “What do you think about this?” They will think about it, mull it over in their mind. We e-mail each other and again we meet out in hallways. It’s kind of an unofficial office as our joke. So I say, “Let me see you. Step out in my office.” That’s the hallway. We talk, we communicate. I think that is probably our strongest suit as a department. We are talking all the time, sharing ideas.” (#2-5/23/06- p. 5)

“Open door policy, dropping them an e-mail, running it by other colleagues. Several people in the department are in the process of writing articles that have to do with what we see that needs to be changed in the system. We believe that we need to go back to the department head model. For each department that used to be the case. Right now in high schools there’s no one person that is responsible for accountability of individual practices in the classroom. It is left up to the teacher. But if there are teachers who are not performing the way that they need to, and there are, the system is very weak in identifying and then moving them on or improving them. We steer by wake and that doesn’t work. You’ve got many problems that occur in the meantime and then you try to solve it by looking back at what we could have done.” (#3-5/23/06- p. 4)

“I walk up there and tell them. They are very open to anything, any of them.” (#4-5/24/06-p. 4)

“If it is a good idea I share it and I’m excited about it. If it’s something that works, I share it with my colleagues.” (#5-5/24/06- p. 5)

If the administrators have an idea, how do they communicate it?

“If it is something that is school-wide they have department chair meetings and they tell the department chairs, and then we disseminate the information through a group liaison. Then we disseminate the information to our department, particularly if you have very big departments, and that is the best way to do it in a big school like this. Or they will call me in if it something that deals with my department and talk about it. They are going to always feel me out and see what I think because I know the people in that department very well.” (#1-5/23/06- p. 5)

“Most of the time, they come straight to me...here you go, I want to bounce this off of you, and they gauge me for reaction. Generally, they come down and find me and then the follow-up will be e-mail or in the office.” (#2-5/23/06- p. 5)

“Depending on the idea, we meet once a month as a faculty. They very regularly e-mail us because the whole system is now a network. Most of our communication of mundane kinds of day-to-day things occurs through e-mail. If there are issues that they want to talk to us about personally, they will come to our room or they’ll ask us to stop in and we share ideas with them. We disseminate information very well through the department heads and so there is a very good exchange of information here.” (#3-5/23/06- p. 4)

“The same way. They walk to my room and tell me.” (#4-5/24/06- p. 5)

“They are real good using the e-mail. They do try to go through channels if it is something they have to get feedback on from the department head. If it is reform or something, we’ll poll our department. They will send out surveys. We’ve done some surveys. They will involve people if it is a decision. They will involve when they feel like it.” (#5-5/24/06- p. 4)

Teachers perceived that the big picture is the change that is taking place in the demographics of the community, and that the principal is a team leader who involves the department chairs in curriculum decisions. Teachers feel that they learn together as a team and are effective communicators in the classroom and with colleagues.

The theme that emerged from teachers’ perceptions of shared vision from interviews was collaboration. One teacher said, “Now we’re talking to each other.” Teachers report that other means of communication between administrators and teachers is through department heads. Department heads meet with the administrators and then the department heads meet as a group before they meet with their departments. Most communication, according to the teachers, is through email; although one teacher talked about informally communicating with others in his department during class changes.

“We talk, we communicate. I think that is probably our strongest suit as a department. We are talking all the time, sharing ideas.” (#2-5/23/06- p. 5)

“Out here in the hallway... between classes is where we do some of our best brainstorming. (#2-5/23/06- p. 5)

The data collected from the teacher surveys on shared vision report the following:

Survey Item 7: I share my vision of a desirable future for our school with other staff members.

Findings: Percentages of teachers who believe that they share their vision of the future with other staff – 90.9% say they share their vision with other staff

Survey Item 20: Our staff sets goals we expect to achieve.

Findings: Percentage of teachers who believe that they set goals and expect to achieve them – 90.9% say they set goals

Survey Item 22: In my school, we have a commitment to a shared vision of what our school should become.

Findings: Percentages of teachers believing that the staff has a commitment to a shared vision showed 81% agree

Survey Item 25: We have, as a staff, agreed on the principals and guiding practices we will follow to create our desired future.

Findings: The percentages of teachers who believe that the staff has agreed on practices they will follow showed 85% agree

Survey Item 27: In my school, we have agreed on the educational practices that are important for us to use in the future.

Findings: Percentages of teachers who believe that the staff has agreed on future educational practices showed that 75% agree

Survey Item 30: Having a vision of the future has brought about changes in the way our staff members think and act.

Findings: Percentages of teachers who believe that having a vision has brought changes in the way the staff acts and thinks showed that 70% agree

Survey Item 36: We keep our vision of the future in mind when solving everyday problems.

Findings: Percentages of teachers who believe that the staff keeps their vision of the future in mind when solving problems showed that 81% agree

Survey Item 42: Experimenting is undertaken without fear of failure in our school.

Findings: Percentage of teachers who believe that they may experiment without fear of failure showed that 81% agree

Figure 5 on Shared Vision

Most teachers (74.5%) are committed to carrying out the vision of the school. They share and communicate openly about the direction of the school and educational practices.

Table 11 provides a blending of the data on shared vision. The data reveals that the teachers meet to discuss curriculum, they listen to each other, they set goals, they experience some creative tension, and they collaborate with their departments.

In response to research question 2, as displayed on Table 11, evidence of a shared vision is indicated by school district documents that identify a set of core beliefs for the schools. Documents that tell of the school's mission and values are also evidence of shared vision. Teachers identify their visions for student achievement in unit and lesson plans. All employees are expected to identify their contributions to student success.

Another example of shared vision is that students learn better when their surroundings are clean and aesthetically pleasing. The researcher, from a series of observations documents and photographs, found that teacher collaboration during common planning time provided teachers with common bulletin boards to reflect student-centered classrooms; mission statements and goals; data also indicated that students were involved in school

governance through student government; however, there was no evidence that teachers were involved in a shared vision with the district or with the school. The data indicated that shared vision is not applied on an organizational level at Morris High School. Shared vision was evident through the board's goals for high schools, through teachers' collaborative lesson plans, through the districts mission and goals, and through departmental discussions of teachers' learning needs. Although the teachers learned together as a team; the fact remains, the teams are separate and not a part of the organization as a whole.

FIGURE 5
SENGE'S FIVE DISCIPLINES - TEACHER SURVEY RESULTS: *Shared Vision*

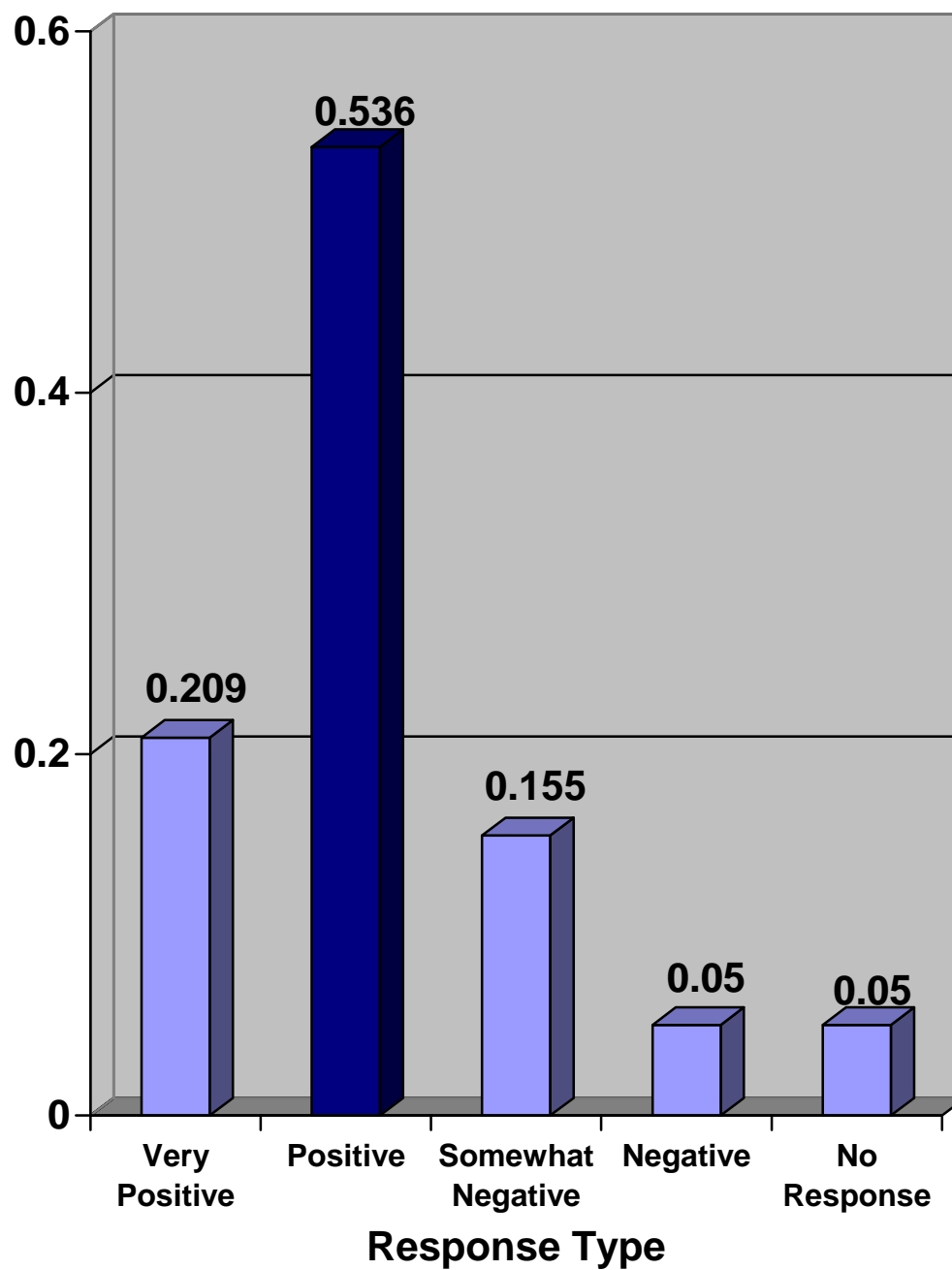


Table 11. *Senge's Five Disciplines – Shared Vision*

Shared Vision (a partnership)	Theme: Collaboration/ Learn from Others	# 20, # 21, # 22 Student work Student-centered Classrooms	#6 Board's goals for high schools	Shared Vision 7. I share my vision of a desirable future with other staff	(collaborative decision making within the department)	Teachers share a vision of the future and acknowledge current reality (collaboration)
(commonality of purpose)		# 1 shared vision of governance by involving the students	# 6 District goals	20. Our staff sets goals we expect to achieve	Teachers acknowledge current reality #11 Teachers wish to improve skills	Teachers are headed in a common direction (collegiality)
		# 47 Trophy Case; using extra- curricular activities in improving student achievement	# 28 District goals (mission statement) (graduation goals)	22. we have a commitment to a shared vision	Teachers listen to each other	Teachers are committed to carrying out the vision of the school
			# 25 -Visions for sharing common planning time -departmental discussions of the professional learning needs of teachers	25. Our staff agreed on the principles and guiding practices we will follow to create our desired future	The principal provides opportunities to support teachers' involvement in decision-making.	Teachers hold departmental committee meetings
			# 57 (2) District mission statement	36. we keep our vision of the future in mind when solving everyday problems	(vertical teaming) Teachers meet with lower grades to discuss curriculum	There is new continuity of instruction (commitment)

Senge's Discipline of Systems Thinking

To understand teachers' perceptions of the presence of systems thinking, the following questions were developed:

Are you one of the change agents around here?

"Yes." (#1-5/23/06- p. 4)

"For the longest time, my perception was, and I was on the outside looking in, I thought that anyone could teach these kids. They were the type of kids they had. And once I got here, I believed that because these students have a way of making you look good. They really do. Their test scores and all of that are fantastic. I think that a lot of teachers have coasted by on that. That is kind of negative. Earlier we were talking about the changes in demographics coming to the County, so it is a different breed, different challenges. I'm not sure if the old way of coasting is doing that, so I see myself as an agent of change because I am entrenched. I came from a background at an inner city school. I don't say I have gotten complacent. I'm not complacent and our department is not going to be complacent. (#2 – 5/23/06 – p. 3)

"Yes. I think that's probably why I was hired. I have been applying to this school for 15 years, every year. For every one position that was open in the county, there were 50 applicants. That may be a little bit of an exaggeration. The principal was looking for someone to bring a breath of change, and someone who was appreciative of this school, the facilities, the student body, the administration. Everything that we have here is outstanding, and that is what makes this school work is all of those elements together." (#3-5/23/06- p. 3)

"I don't know. That's a good question. Yes, in some areas I am, but a lot of the things that go on I'm not sold on. Some of the things we do well and we shouldn't change." (#4-5/24/06- p. 3)

"I would say so." (#5-5/24/06- p. 4)

Who is the best problem solver at this school?

"In this building? I think it is a combination of associate principal and principal. They work very closely together, and I think that they reach out and seek input from department chairs and people who are "in the know". I think it is important to keep your finger on the pulse. Ultimately, they are because they use the people. They ask questions and they know what is going on". (#1-5/23/06- p. 6)

“I would say, for me, anyone of the administrators, but believe it or not within the department I think I do a very good job. I think that I am able to head off a lot of the situations that develop before it gets to the administrators. So I am able to put some of the value on my level before they get there. As far as getting anything done, either one of the administrators. Most of the time you get it resolved before you even have to get to the principal. So for me Ms. _____ is our department administrator and she is wonderful. She is an assistant principal.” (#2-5/23/06- p. 5)

“That would be very hard to say because... I would say at this point I would go to the associate principal. He and the principal work hand in glove with everything. They are pretty much equals in the way they see their relationship. The associate principal has been around here longer and has a deeper background than the other assistant principals. They are all good, but he knows more about everything that is going on, and if you go to him, he will make it right if he can, and he will tell you why he can't if he can't.” (#3-5/23/06- p. 4)

“I think it would be the principal because he is proactive. If there is a problem, he addresses it and I really appreciate that.” (#4-5/24/06- p. 3)

“The problem creator is anybody who creates change around this place. I think the associate principal is the one who is behind it all in cahoots with the principal. They work closely together. He is more to me the instructional leader of the school.” (#5-5/24/06- p. 5)

Findings from the interviews indicated that four out of five teachers see themselves as change agents. One teacher is not sold on everything that takes place and believes that there are things that should not be changed. A theme that emerged from systems thinking was curriculum and student achievement.

The data collected from the teacher surveys on systems thinking report the following:

Survey Item 6: When we change our educational practices, we consider how they will help us better achieve the school's purpose.

Finding: Percentage of teachers who believe that they consider the school's purpose when changing educational practices showed that 91% say frequently

Survey Item 10: When we make changes in our school we consider the effects of those changes on the people and grades below and above us.

Finding: Percentage of teachers who believe that they consider the people and grades below and above them when making changes showed that 72.6% say frequently

Survey Item 18: Our leaders look at the big picture, focusing on the purpose and direction of the organization.

Finding: Percentage of teachers who believe that their leaders look at the big picture showed 81.8% agree

Survey Item 35: It is normal to have a discrepancy between the way my school functions and the way I wish it would function.

Finding: Percentages of teachers believe that it is normal to have discrepancies between the way the school functions and the way they wish it would function showed that 71.4% agree.

Survey Item 38: Discrepancies between the way my school functions and the way I wish it would function, motivate me to change my practices.

Findings: Percentages of teachers who believe that they are motivated to change their practices when there are discrepancies between functions showed that 71.4% agree

Figure 6 on Systems Thinking

Almost two-thirds of the teachers (64.7%) incorporate system thinking into their daily practices. They consider how their decisions affect their colleagues and achieving the school's overall purpose.

Table 12 blended the findings on systems thinking. The data revealed that curriculum and student achievement are important as evidenced in documents,

photographs and observations of the school. Demographic shifts brought about changes in the curriculum and teachers are beginning to take a look at teaching practices.

In response to research question 2, as displayed on Table 12, from a series of classroom observations, photographs, and documents the researcher found that new programs had been implemented and brought about because of changing demographics. And many trophies and awards are displayed to showcase student achievement; however, there is no evidence of systems thinking, no evidence of interconnectedness. Systems Thinking was evident as a result of students' requests to add classes to the curriculum, graduation goals, and achievement awards and trophies.

FIGURE 6
SENGE'S FIVE DISCIPLINES - TEACHER SURVEY RESULTS: *Systems Thinking*

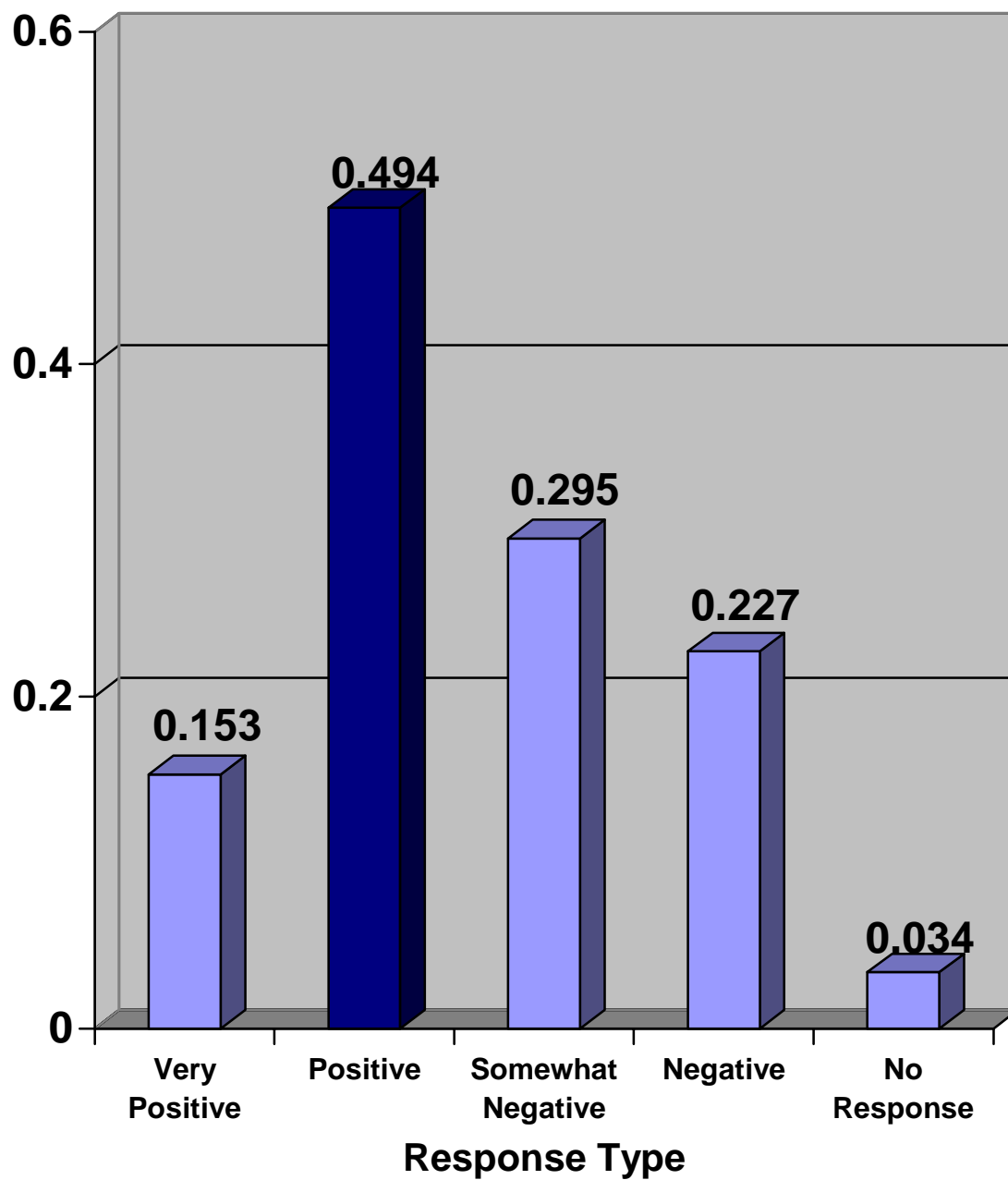


Table 12. *Senge's Five Disciplines – Systems Thinking*

	Theme: Barriers	# 17 teachers' workroom (overcrowding)	# 16 Student newspaper	3. understanding the big picture by meeting with teachers in other grades	Students express concern over discipline; racism; and over-crowded classrooms	Vertical teaming – some teachers have met with middle school teachers
				13. when I make decisions in my classroom, I consider impact on my colleagues 15. I ask why we do things 16. we accept others opinions 17. I trust leaders to solve problems	Some older teachers' attitudes are resistant to change (teacher nostalgia) Community holds on to deeply ingrained beliefs and assumptions Book banned at the high school. not all teachers trust the leadership to solve problems	The departmental teams appear to be disconnected Teachers have different beliefs and are resistant to change those beliefs about educational practices (teacher nostalgia) (interrelationships) Censorship
				28. I lack skills and knowledge 31. practices should be changed	Teachers are aware of their deficiencies # 13 changing demographics	Teachers are aware of the need to change curriculum offerings Teachers feel lower-level students are unmotivated
				33. no time for teams	Teachers feel there is not enough time # 14 culture and tradition	Not enough: -Time for work -Time for family -Time to do it all

				34. discrepancies in the classroom make me uncomfortable	Teachers do not question why things are done	Not knowing what the other teams are doing has brought about some unfriendly remarks and feelings
				39. I feel isolated 40. we, as a staff, have agreed on the purpose of our school	Common planning time was initiated by the district and school principals There is division among the common planning teams Some teachers feel isolated from other adults	Common planning was a top down decision Teachers are associated more closely in particular departments rather than the school as a whole

Summary of Research Questions 1 and 2

Looking at the professional learning community through the lens of Senge's five disciplines and determining the evidence of the presence of these disciplines as displayed on Table 14, the researcher found evidence of the presence of a limited amount of Senge's five disciplines applied at the individual level, but not on an organizational level.

Research Question 3

Teachers Perceptions of Barriers

In this section, the data analysis from observations, interviews, photographs, documents and artifacts, and surveys, will be blended to report the findings from the interview data theme (barriers) that emerged outside Senge's five disciplines. This is reported as part of the data table (Table 13) and is organized according to the tools used to collect the data: observations, photographs, interviews, documents and artifacts, and the survey.

Barriers to Personal Mastery

This theme embodies the teachers' perceptions of the barriers that prevent them from accomplishing the goals and values they believe are important. This theme emerged as part of the interview questions asked to elicit responses related to personal mastery; however, after an analysis of teachers' responses, it was clear that other disciplines were involved. Also, in analyzing teacher survey data, the researcher found that teacher's responses to some of the survey items were below 70% in agreeing with the content of a statement. The researcher and an expert in qualitative methodology agreed that certain items on the survey should be listed as barriers to an organization's attempt to create a

learning community. The researcher noted those items with responses below 70% as barriers.

When the teachers were asked:

What barriers prevent you from accomplishing your goals? ... Personal and professional?

They responded:

“Professional - This is a very conservative county and there are times that I feel like whatever parents say they listen to and they don’t listen to us. Censorship has become an issue lately; Taking books off the shelves. This happened at the elementary school. But as a (an) _____ teacher, that scares me to death. We had some issues of censorship here. One of the books we pulled in apparently had a profane word. When I speak about my administration being wonderful, I talk about my high school administration, I’m not talking about the district.”(#1- 5/23/06 p. 5)

“I would just say that it is the same barriers everyone faces. Time...is there enough time to get it done in a day or is there enough time to get it done in a week or is there enough time to get it done in the year? As the father of two small children, and I know I could kick myself; I should have gotten the education and all of that out of the way. If I could go back into administration, I would take classes, but then there’s that trade-off - where I don’t have much family time as it is. Am I willing to take away from that family time? In my own personal life I have discovered that family is what it is all about. It took me a long time and I am just realizing that recently. Where do I draw the line? My wife is also a school teacher so everything works out well. (#2- 5/23/06 p. 3)

“Time... I have a lot of great ideas. I just don’t have the time to do it all.”(#5 5/24/06, p. 4)

“I would say that the isolation of classroom teaching is so demanding that without some sort of encouragement or intervention on the administration’s level that we really don’t have the time. After 5 one-act plays that you do every day in front of a classroom, if you are doing it right, you’re exhausted, if you do it right. At 3:30 when it is time to go home or time to grade paper, there’s not the energy left to do the professional engagement of other things. I have always admired people who were able to leave at 3:30 and go over to the college and take classes for two hours and then go home and eat something out of the refrigerator and then study for 8:00 until midnight and then get up at 6:00 in the morning and do it all again. I don’t have the stamina or the interest in that.” (#3- 5/23/06 p. 5)

The teachers said that this school was a busy place. There was a lot of assessment, and they spoke of the competitive environment. Because of overcrowding, teachers felt that there was no place for them to go to chat or eat lunch together. They felt overwhelmed by the amount of work to be done.

“We are so big that there is no place. We are so overcrowded that we have teachers in the workrooms at desks, so it’s their space. So there really is no place for us.” (#1- 5/23/06) p. 4)

Where do you go for lunch?

“I sit at my desk and work. I grade papers.

Is there a teacher’s cafeteria?

“There is a teacher’s lounge up in the part where the entire school population gets together, but I have never been a real fan of teacher’s lounges. So sometimes there is a lot of negative energy and I think I’m not really in on that whole kind of grapevine because I don’t hang out with those teachers. But most of the teachers in my department grade papers during lunch. We have so much grading, so we sit here and I really don’t associate with others. (#1 May 23, 2006 p. 4)

What goes on in the school?

“Busyness goes on in the school. In this department we are always grading. That has been a real issue trying different ways to make that better. We are all pretty burned out. It took me about two years to really feel at home because I finally got to know people and wasn’t like we had time to stand around and socialize. There is so much to do here that we are all emotionally and physically exhausted. (Too much to do... so that is an issue).” (#1- 5/23/06 p. 6)

“Looking back on the past year, I think that when the kids get here, I don’t want to say they are excited. The kids realize what they need to do and they go about their business. Most of the kids go about their business, get to class on time and are ready to work. Is that a general question to try to cut broadly? (#2- 5/23/06 p. 6)

“It’s busy - it’s a busy place to be. You’ve got the morning announcements going on, kids from here and there. I lock my door so they can’t get out. There’s teaching going on. I’ll say 85% of the time. There is a lot of assessment. It’s a good place to be. It’s competitive.” (#5- 5/24/06 p. 5)

This section includes teacher's survey responses to barriers to personal mastery

Survey Item 28: Realizing that there are professional skills and knowledge that I need, but do not possess, makes me uncomfortable.

Findings: Percentages of teachers who feel uncomfortable because they lack certain skills – 65% agree.

Survey Item 31: Realizing that we have professional practices used in our school, which should be changed, makes me uncomfortable.

Findings: Percentages of teachers who feel uncomfortable because certain practices should be changed 57.2% agree

Survey Item 34: It is normal to have a discrepancy between the way my classroom functions and the way I wish it would function.

Findings: Of the percentage of teachers who believe that it is normal to have discrepancies between how their classroom functions and the way they wish it would function- 55% agree

Barriers to Mental Models

Teachers' perceptions of barriers to mental models include; resistance, isolation, teacher nostalgia, overcrowding, and changing demographics (Table 13).

“When I first came here, I had the hardest time making friends because nobody had time to stop. At other schools we would stop and talk and chat and eat lunch together. There is no good place for the department to have lunch together. There is a teacher's lounge up in the part where the entire school population gets together, but I have never been a real fan of teacher's lounges. So sometimes there is a lot of negative energy and I think I'm not really in on that whole kind of grapevine because I don't hang out with those teachers, but most of the teachers in my department grade papers during lunch. We have so much grading, so we sit here and I really don't associate with those other teachers. Busyness goes on in the school. In this department we are always grading. That has been a real issue trying different ways to make that better.” (#1-5/23/06-p. 4)

One teacher said that common planning time was just another thing that must be done during the school year. This way of thinking about common planning was a barrier that influenced how he understood his world and reflected in how he took action (Senge, 1990). Another teacher talked about the teacher's lounge and the negative energy that prevented her from wanting to go there.

“ If I have to endure common planning 2 or 3 times per year, that's just part of it.” (#4 5/24/06 – p. 5)

Also, teachers perceived that a resistance to change due to changing demographics was having an affect on the school. Teacher generations were seen as a barrier. There was resistance to working with lower socio-economic students perceived as needing a lower level of materials.

There has been:

“Some resistance to change by people who don't want to recognize that demographics are changing, and we need to change what we are doing. Some people are on one side and some on the other. Some want to change. The rest who want to change see things to be in good standing, but there are some who are dragging their feet and look at the administration. They feel they are entitled to things because they have been here for a long period of time. For instance, like teaching specific classes. We need to spread it around so you don't want your retired population to teach all of your upper level classes. You want to spread that around. If they see it as their entitlement, they think they have earned it. You have to have a different mind set about that.” (#1 5/23/06 – p. 3)

“Our demographics are changing, and as a result we need to be talking more about what we can do to meet the needs of kids who are of a lower skill level... our Tech Prep classes are growing and it's really new for us. It was always very much an academic-oriented school, and we didn't really have many kids at that level. A huge influx of kids tends to be of a lower socio-economic background and lower skill level. A lot of things can meet the needs of these kids, so we had to kind of do an about-face and take a look at the different needs of our population and try to meet those needs. It has been met with some resistance with some of the older faculty members, you know, they see this school as a premier academic school and what is happening to our school is unfortunate. (#1 5/23/06 – p. 3)

“We are not teaching to these kids, and I have been very vocal about the fact that we really don’t have anything for the kids who don’t feel like they belong here. They feel like they are stuck in dumb classes because they are not taking AP. This is very much an AP-oriented school, so I think that is important. I think it is important that they have a place and that they feel they belong. It is good to have an area in which they excel, and I think we will lose fewer of them if they feel like they have some reason to be here. So in that respect, we are in the midst of change.”(#1-5/23/06 p.5)

As an artifact and part of the document collection, the student newspaper discussed discipline problems in the classrooms, racism and overcrowding. Also, it was clear that the isolation of classroom teaching remained a barrier to a learning community.

“Common planning has worked better for some teachers than others because some teachers still don’t like to work with other people (#1-5/23/06- p. 3)

This section includes teachers’ survey responses to barriers to mental models.

Survey Item 15: I ask questions of my colleagues about why we do the things we do educationally.

Findings: Percentages of teachers who say they ask questions of colleagues about the things they do educationally – 68.1% say they do ask why

Barriers to Team Learning

Survey Item 16: When meeting with colleagues, differences of opinion are depersonalized and focused on genuine areas of disagreement.

Findings: Percentages of teachers who believe that during team meetings, differences of opinion are depersonalized showed 63.7%

Barriers to Shared Vision

Survey Item 32: I can say what I think openly without limits or fear of reprisals.

Findings: Percentages of teachers who believe that they can say what they think without fear of reprisals showed that 66.7% agree

Survey Item 40: We, as a staff, have agreed on the purpose of our school.

Findings: Percentages of teachers who believe that their staff has agreed on the purpose of the school showed that 61.9% agree

Barriers to Systems Thinking

Survey Item 3: I meet with teachers in other grades and other schools to discuss educational issues.

Finding: Percentage of teachers who meet with teachers in other grades and other schools showed that 40.9% say they meet

Survey Item 13: When I make decisions in my classroom, I consider how they will impact my colleagues.

Findings: Percentage of teachers who consider the impact on colleagues when they make decisions in their classrooms showed that 66.7% say they consider the impact

Figure 6 on Systems Thinking

Only two-thirds of the teachers (64.7%) incorporate systems thinking into their daily practices according to the survey. Few consider how their decisions affect their colleagues and achieving the school's overall purpose. This is considered a barrier to this school's attempt to implement a professional learning community.

Summary of Barriers

The researcher found evidence that there were certain barriers to this school becoming a professional learning community. For one thing, the survey data indicated that the teachers were not aware of the staff as a whole agreeing on the purpose of the

school. Another barrier was teacher resistance where older faculty was divided from newer faculty. Also, there has been resistance to common planning; this created different outlooks on teaching and student learning. Another barrier has been changing demographics. Overcrowded classrooms, student discipline problems, and racism were listed as problems by the student newspaper. Teachers named specific barriers as: time, censorship, student behavior, and the isolation of classroom teaching. Time, different beliefs, the isolation of classroom teaching, and fear of reprisals if teachers speak their mind about issues...these and other barriers listed above, stand in the way of teacher's greater accomplishments. Findings indicated that barriers stood in the way of teachers' ability to have the kind of organization they desired. Teachers remained isolated in their classrooms while they made decisions about teaching and learning and did not consider the impact on their colleagues. Only 57% of the teachers felt uncomfortable about practices in the school which should be changed. Some teachers (55%) felt that it was normal to have discrepancies in the way their classrooms functioned and the way they wished it would function. Only 40% of the teachers have been involved with vertical teaming; 40.9% of the teachers said they have met with teachers in other schools to discuss educational issues. One surprising perception from shared vision was that 66.7% of the teachers felt that they could say what they thought without fear of reprisals (Table 13).

Table 13. *Barriers*

	Theme: Barriers	# 17 teachers' workroom (overcrowding)	# 16 Student newspaper	3. understanding the big picture by meeting with teachers in other grades	Students express concern over discipline; racism; and over-crowded classrooms	Vertical teaming – some teachers have met with middle school teachers
				13. when I make decisions in my classroom, I consider impact on my colleagues 15. I ask why we do things 16. we accept others opinions 17. I trust leaders to solve problems	Some older teachers' attitudes are resistant to change (teacher nostalgia) Community holds on to deeply ingrained beliefs and assumptions Book banned at the high school. Not all teachers trust the leadership to solve problems	The departmental teams appear to be disconnected Teachers have different beliefs and are resistant to change those beliefs about educational practices (teacher nostalgia) (interrelationships) Censorship
				28. I lack skills and knowledge 31. practices should be changed	Teachers are aware of their deficiencies # 13 changing demographics	Teachers are aware of the need to change curriculum offerings Teachers feel lower-level students are unmotivated
				33. no time for teams	Teachers feel there is not enough time # 14 culture and tradition	Not enough: -Time for work -Time for family -Time to do it all

				34. discrepancies in the classroom make me uncomfortable	Teachers do not question why things are done	Not knowing what the other teams are doing has brought about some unfriendly remarks and feelings
				39. I feel isolated 40. we, as a staff, have agreed on the purpose of our school	Common planning time was initiated by the district and school principals There is division among the common planning teams Some teachers feel isolated from other adults	Common planning was a top down decision Teachers are associated more closely in particular departments rather than the school as a whole

Summary of Research Question 3

In response to research question 3, findings from research questions 1 and 2 were blended and report the findings. Overall, there is no evidence that this school is a professional learning community. All of the teachers interviewed said they have both professional and personal goals, and they feel free to talk to the administrators. They all say they want to grow professionally; they focus on what they want; and they are beginning to develop trust. All of them mentioned a desire for more time to do the things they need to do, and spend more time with their families. Findings also indicated that the administrators: support teachers' attempts to improve their skills and knowledge; support teachers' attempts to create curriculum; provide the necessary resources for teachers; and provide time for teachers to meet. More than 70% of the teachers desire and continuously work to improve professionally and feel supported by their school leadership. Every teacher interviewed and observed described the support they feel from the administration. In a study by Richardson (2003), a correlation was found between the style of the building principal and the principal's ability to create and nurture a professional learning community. Eaker, DuFour and DuFour (2002) suggested that the difference between a traditional leader and a leader in a professional learning community is in the way in which administrators are viewed. In traditional schools, principals are leaders of teachers; in professional learning communities, principals are leaders of leaders. Along with leadership, the conditions under which people work must also support their continued learning (Huffman & Jacobson, 2003). Senge (1990) described this requirement as having a culture that celebrates collaboration.

The data indicated that the discipline Mental Models was not evident on an organizational level. Teachers reflected on the way they thought about their classes; they reflected on their practices in the classroom, and how they would be able to increase student achievement. The teachers indicated that they were open and reflective and could recognize their own mental models. The teachers also indicated that they used reflection to draw attention to personal beliefs and assumptions about where they fit in the school. Yet, there was no evidence that indicated a collective sharing of the truth, values and goals.

The data indicated that Team Learning was evident on a limited level. Common planning time provided the structure for teachers to share ideas about teaching and learning. Sharing and planning together has become a part of the agenda. Although this time provided a vehicle for teachers to participate in dialogue and build relationships, the teachers only met four times during the school year, and one teacher interviewed felt that meeting was a waste of time and that it could all be done on paper. Overall, the majority of the teachers' time during common planning was used to examine curriculum, share materials, look at recent research and devise units of work. Common planning time has been beneficial to some of the teachers because forming teams and giving them time to work together has caused them to grow closer as a department. Second, common planning has brought about changes in some of the teacher's practices. Yet, there is a feeling of competition among the departments, and once common planning time is over, teachers return to the isolation of the classroom until nine weeks later and another common planning meeting. The climate remains status quo. The majority of the classrooms are very traditional.

The data on Shared Vision indicated that there is some evidence of a shared vision. Some teachers' perceive that attitudes have changed, and they have become more unified; however, one respondent stated that there has been some resistance to change from the older faculty. The culture at the school is beginning to change in the way things are done in some of the classrooms. But the majority of the classes are sticking with tradition. When some of the teachers collaboratively created a vision for their department, it had no impact on the school culture because it was not throughout the organization. Through collaboration, they created a shared vision of what they wanted their department to look like, and not the whole school. They were motivated to share responsibility for the work on departmental lesson plans and units, and as a team, they were involved in taking a closer look at the curriculum. But working in teams does not create a learning community. To them it meant sharing, and sharing meant that they incorporated these new ideas into their teaching and problem solving within the classroom. Although the teachers learned together as a team; the fact remains, the teams are separate and not a part of the organization as a whole. Findings indicated that the culture at Morris High School is beginning to change in the way some things are done in certain departments at the school.

Interview data indicated that teachers perceive that changing demographics has brought about a change in student learning and school discipline. They feel frustrated about the lack of materials for the students who are working at a lower skill level than those who are college bound. Sixty-five percent of the teachers agree that they feel uncomfortable because they lack certain skills and knowledge. Over one-half of the teachers say they feel that there are certain practices in the school that need to be

changed. Also, over one-half agree that there are discrepancies in the way their classroom functions and the way they wish it would function, but these discrepancies are motivating over ninety percent of them to change their practices. The teachers agree that they remain focused although there are goals that are difficult for them to attain.

The survey and interview data indicated that systems thinking was not present on an organizational level. Teachers were beginning to collaborate within departments and build relationships within those departments, but systems thinking requires communication across grade levels. Findings also indicated that teachers were beginning to implement vertical teaming with teachers in the middle schools; they have met with middle school teachers once this school year. Teachers were beginning to collaborate within departments and build relationships within those departments. Systems thinking is a discipline for seeing wholes; “the ability to pay attention to the world as if through a wide-angle, not a telephoto lens, so you can see how your actions interrelate with other areas of activity” (Senge, et al., 1994, p. 87).

Table 14 is a blending of all data and provides a picture of the school from data collected and analyzed by the researcher. It is true that there are documents that list missions and goals for the school, and there is acknowledgement of student achievement, immaculate and manicured surroundings, teachers perceptions of administrative support, and teachers’ desire to improve personally and professionally; still, top-down mandates, a highly centralized administration, no time set aside for reflection and dialogue, along with no feelings of interconnectedness, dissociates this school from other professional learning communities as defined by Senge’s five disciplines of a learning organization (Table 14).

Table 14 *Data Table-Professional Learning Communities*

Senge's Five Disciplines	Interview Themes	Photographs	Documents	Survey	Notes	Overall
Personal Mastery	Administrative Support		#24 (1) District emphasizes PLCs/site-based learning (support)	Personal Mastery 2. leaders encourage teachers	Money given to teachers for conferences	Administrators support and provide resources for teachers
(connectedness)		#18, #22, #23 Foreign Language Word walls (active learning) (collaboration)	#15 Learning Focused Schools Rubric (alignment)	21. teachers work to improve professionally	Teachers attend school #12 Classroom: teacher excited about AP training	Teachers attend professional development departmental meetings Teachers are using the LFS strategies
		#20 traditional seating; student focused; word wall	#19 Common Planning Memo to teachers re: schedule of meetings	23. teachers desire to improve skills and knowledge	Teachers meet to work on curriculum #11 (1) Teacher wants to be a part of common planning team	Teachers want to grow professionally and improve skills (creative tension)
		# 50, #51 science student-centered; Senge says epitome to personal mastery is helping children decipher their passions	# 4 Departmental discussions of teachers learning needs	24. teachers have a personal vision of school	#11 (2) Class: teacher wishes to implement robotics (generativeness)	Administrators provide programs/ opportunities for students/teachers (having a vision)
		#26 signs at main entrance; school of excellence	#24 (2) (support)	26. I understand how my school functions	# 24 District emphasizes learning communities	District emphasizes site-based learning

			#25 Professional learning goals		Time set aside for common planning	Administrators support common planning
Mental Models	Theme: Self-Reflection		# 24 (mission statement) (graduation goals)	Mental Models 1. I think about what happens in my class	Teachers reflect on teaching practices	Teachers want to help lower-level students; excited about training in AP
(love of truth) (openness)		#25 Social Studies Black History bulletin board acknowledges diversity	# 15 (2) Learning Focused Schools (alignment) (dialogue)	5. We talk about our practices		Teachers have open/honest conversation with their colleagues
			#6 Board's goals for high schools	9. I change when my assumptions change	teachers value education	School district encourages success
(distinguishing the direct data of experience from the generalizations we form based on the data)			# 56 Georgia Performance Standards (analyzing data) # 57 District mission statement	12. we talk about change	Teachers communicate within their departments regularly about their educational practices. (alignment)	Some teachers plan units during common planning time, teach the unit and reflect on the good and bad aspects of what needs to be changed (collective intelligence)
Team Learning	Theme: Common Planning		# 25 professional goals and a more refined learning community # 15 Learning Focused Schools	Team Learning 4. we deal with issues	Teachers are working to learn new standards (GPS Standards)	Proposal for collaborative planning and use of paraprofessionals and substitutes while teachers meet in two hour intervals

(alignment)			# 22 Copy of common planning dates # 24(2)	8. I listen to others ideas	Teachers brought out of isolation; act as colleagues practicing	Team members focus on other's views; functioning as a whole; a collective intelligence
			# 17 District collaboration proposal # 10 Board proposal for collaborative planning	11. we respect each other	Common planning time has provided teachers the opportunity to develop social relationships	Most teachers value team learning and respect their fellow colleagues
			#19 scheduled team meetings	19. we have meaningful interactions	Team members focus on other's views	Collaboration creates continuous learning
Shared Vision (a partnership)	Theme: Collaboration/ Learn from Others	# 20, # 21, # 22 Student work Student-centered classrooms	#6 Board's goals for high schools	Shared Vision 7. I share my vision of a desirable future with other staff	(collaborative decision making within the department)	Teachers share a vision of the future and acknowledge current reality (collaboration)
(commonality of purpose)		# 1 shared vision of governance by involving the students	# 6 District goals	20. Our staff sets goals we expect to achieve	Teachers acknowledge current reality #11 Teachers wish to improve skills	Teachers are headed in a common direction (collegiality)
		# 47 Trophy Case; using extra- curricular activities in improving student achievement	# 28 District goals (mission statement) (graduation goals)	22. we have a commitment to a shared vision	Teachers listen to each other	Teachers are committed to carrying out the vision of the school

			# 25 (2) -Visions for sharing common planning time; departmental discussions of teachers' learning needs	25. Our staff agreed on the principles and guiding practices we will follow to create our desired future	The principal provides opportunities to support teachers' involvement in decision-making.	Teachers hold departmental committee meetings
			# 57 (2) District mission statement	36. we keep our vision of the future in mind when solving everyday problems	(vertical teaming) Teachers meet with lower grades to discuss curriculum	There is new continuity of instruction (commitment)
Systems Thinking	Theme: Curriculum/ Student Achievement		#19 Common Planning Schedule #25 Professional learning goals	Systems Thinking	Teachers meet with teachers in the lower grades to discuss curriculum (vertical teaming)	Common planning teams meet with middle school teachers District wants a more defined learning community
(interconnectedness) (holism)		# 38 (2) Bulletin board in hallway acknowledges diversity # 23 French-one class offered as students requested	# 35 voc/tech programs (structure influences behavior) # 20 (graduation goals) (mission statement) #24(3) District emphasizes	6. When we change we consider the school's purpose 10. and we consider the affect on people and grades below and above us	Recommend adding career and tech offerings based on student surveys (mission statement) Teachers work to develop units to teach the standards that will correlate	Tech/career prep (diplomas) and college prep diplomas Skill of collaboration with middle school – called vertical teaming

			professional learning communities		with new Georgia standards	
			# 28 (district) systems goals # 11 Board approves a five-year facility plan	18. Our leaders look at the “big picture”	#2 Low-income housing (analyzing the impact of actions and reactions)	Demographic shifts in student and community has brought about a change in the curriculum
		# 50 chemistry classroom-student-centered, learner-centered, relevant # 51 classroom-kite-making in class	#30; #14; #15 career center research; online assessments; eLearning Academy; LFS	29. The leadership allows innovation	# 13 career/tech classes alignment (5) # 12 student-centered, interactive classroom	Strategies from Learning Focused Schools (LFS) are visible in many classrooms
		# 26 Georgia School of excellence in student achievement	# 4 accomplishments, honors/ Scholarships. #6 board goals (graduation goals)		#1 The school: - located in an affluent suburb -clean and orderly -friendly and welcoming	School has a reputation for high achieving students –
		# 28 Outside main entrance: manicured lawns, shrubs, trees; free of debris. # 27 Notices warn of intolerance to illegal activities	#35 (2) Board recommends additional Career/Technical offerings		# 10 (common planning) # 3 Grounds are quiet: no police cars or security #8 climate #18 environment	The main entrance to the school offers a welcoming environment There is no evidence outside or in the hallways or classrooms that would indicate a learning community
		# 47 trophy cases; awards # 36 classroom-	# 8 Silver award in achievement-recognized by the			Special recognition is given to students and teachers

		acknowledgement of student success	governor's office			
		# 48 student cafeteria- # 24 (2) Counseling information on colleges posted in cafeteria	#1 School Newsletter # 37 School Profile		# 15 Hallway-decorous behavior # 4 Buzzers not bells used to signal class changes; business-like atmosphere	Students conduct themselves in a way that contributes to a safe and orderly environment The school population reflects the community
	Theme: Barriers	# 17 teachers' workroom (overcrowding)	# 16 Student newspaper	3. understanding the big picture by meeting with teachers in other grades	Students express concern over discipline; racism; and over-crowded classrooms	Vertical teaming – some teachers have met with middle school teachers
				13. when I make decisions in my classroom, I consider impact on my colleagues 15. I ask why we do things 16. we accept others opinions 17. I trust leaders to solve problems	Some older teachers' attitudes are resistant to change (teacher nostalgia) Community holds on to deeply ingrained beliefs and assumptions Book banned at the high school. not all teachers trust the leadership to solve problems	The departmental teams appear to be disconnected Teachers have different beliefs and are resistant to change those beliefs about educational practices (teacher nostalgia) (interrelationships) Censorship
				28. I lack skills and knowledge	Teachers are aware of their deficiencies	Teachers are aware of the need to change curriculum offerings

				31. practices should be changed	# 13 changing demographics	Teachers feel lower-level students are unmotivated
				33. no time for teams	Teachers feel there is not enough time # 14 culture and tradition	Not enough: -Time for work -Time for family -Time to do it all
				34. discrepancies in the classroom make me uncomfortable	Teachers do not question why things are done	Not knowing what the other teams are doing has brought about some unfriendly remarks and feelings

				39. I feel isolated 40. we, as a staff, have agreed on the purpose of our school	Common planning time was initiated by the district and school principals There is division among the common planning teams Some teachers feel isolated from other adults	Common planning was a top down decision Teachers are associated more closely in particular departments rather than the school as a whole
Summary of the five disciplines: Personal mastery requires continual development and interpretation of one's personal vision; Mental	Summary: of the themes: Administrators support teachers and provide resources; Teachers reflect on their personal and	Summary of Photographs: Limited evidence of the five disciplines; Manicured lawns, acknowledgement	Summary of documents: Administrative and top-down examples of missions, goals, and programs for teachers	Summary of survey: Most teachers' desire and work to improve personally and professionally; most teachers	Summary of notes and observations: The administration is highly centralized; most classrooms are traditional; overcrowding	Overall: There is no evidence that the organization embraces common goals, values and visions; no continuity; no

<p>models are revealed when there is a discrepancy between what you say and what you do; Team learning is where collective competence is greater than any individuals; Shared vision is where goals, values, and missions are shared throughout the organization; Systems thinking allows detection of patterns and interrelationships...It is a holistic approach</p>	<p>professional lives; Common planning time allows departments to meet four times a year...vertical teaming is implemented; Departments collaborate and share visions of curriculum; Overcrowding, changing demographics, discipline, resistance to change, time, isolation and fear of risk taking are barriers to change.</p>	<p>of student achievement, traditionally arranged classrooms and a perceived air of decorum and calmness.</p>		<p>trust the leadership and communicate with colleagues; most teachers are committed to carrying out the vision of the school; most teacher's value team learning and respect colleagues; two-thirds of the teachers consider how their decisions affect their colleagues and achieving the school's overall purpose; but almost 70% say have not as a staff, agreed on the purpose of the school.</p>	<p>creates barriers to personal mastery; problems with administrative succession and changing demographics and teacher nostalgia; discipline problems beginning to surface; no interdepartmental meetings; a culture of prestige is embedded in the mental models;</p>	<p>feelings of interconnectedness; no time is set aside for reflection and inquiry; there are discrepancies between the mission, goals and values and teachers actions; common planning time was a top-down decision with the usual repercussions of lack of commitment and feelings of isolation.</p>
--	---	---	--	--	--	--

Overarching Research Question

The data gathered from interviews, observations, surveys, documents and artifacts and photographs were analyzed to provide teachers' perceptions of and give evidence of the presence and application of Senge's five disciplines at one high school in Georgia. The findings from all data sources revealed that Morris High School does not apply the disciplines of a learning organization that would illustrate a professional learning community based on Senge's five disciplines of a learning organization. The discipline personal mastery requires continual development and interpretation of one's personal vision. Although this was present on individual levels, it was not applied throughout the organization where personal mastery means a connectedness with all members of the organization. The discipline mental models are revealed when there is a discrepancy between what you say and what you do. The data indicated that teachers had not met to determine the purpose of the school and goals of the organization. Mental models are revealed through reflection, dialogue and discussion. This discipline was somewhat applied on an individual level, but it also requires the chance to practice openness and the love of truth. There was no evidence that mental models were applied in the organization as a whole. Team learning is where collective competence is greater than any individuals. This discipline, above all others, was applied on a greater scale due to the implementation of common planning time. Common planning time gave teachers a chance to align their departmental goals with requirements from Georgia Professional Standards. Team learning focuses on collective education that benefits the organization as a whole and is described as an activity which starts with dialogue or the capacity of members to "suspend assumptions and enter into a genuine thinking together. This was not applied on

an organizational level. Shared vision is where goals, values, and missions are shared throughout the organization. It was not evident that this discipline was applied throughout the organization. There was no commonality of purpose. No interdepartmental common planning time. Systems thinking allows detection of patterns and interrelationships...It is a holistic approach. This discipline was not applied on an organizational level at Morris High School. Clearly, Senge's five disciplines are applied on an individual level but not on the organization as a whole and do not illustrate a professional learning community (Table 14).

Summary

The researcher conducted recorded and transcribed interviews with teachers, collected documents and artifacts, took photographs, and through on-line sources provided a survey for fifty-four core subject teachers. The researcher analyzed the data to identify common themes and patterns in response to the research questions. In reporting the findings, the researcher assigned a number to each interview participant in order to maintain confidentiality. Table 14 reports that there is evidence that some part of the five disciplines exists in this school. The implementation of common planning at this school was a top-down decision with the departmental chairs acting as liaison between the administration and the core subject teachers. There are teachers in other departments who are not core subject teachers but they wish to be a part of common planning.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Education in the United States has been under attack for over twenty years for failing to educate American children (DuFour & Eaker, 1998). In her book, Left Back, A Century of Battles Over School Reform, Diane Ravitch (2000) detailed over one hundred years of America's attempts to reform and improve the public school system. These attempts to transform teaching and learning and thus improve America's schools have brought disappointing results. Although serious discussions of creating a learning community began in the corporate world, professional learning communities have been hailed as the most promising strategy for sustained school improvement (DuFour & Eaker, 1998).

Introduction

DuFour and Eaker (1998) contend that if schools are to be more effective, they must embrace a new model that enables them to function as professional learning communities. Professional learning communities have been described as the "preferred" organizational arrangement in schools (Hall & Hord, 2001). Schools, more than any other organization should be learning organizations, according to Hoy and Miskell (1996). In education, the focus on learning organizations has been on collaboration and community-building. The use of Senge's five disciplines of a learning organization provides a model for achieving community building, collaboration, and developing schools which can create the results that they truly desire. The learning organization practices the five disciplines of personal mastery, mental models, team learning, shared vision, and systems thinking.

The researcher became interested in professional learning communities as a literacy coach at the elementary level for the state of Georgia. The researcher observed teachers meeting to share ideas, discuss lesson plans, and create communities of collaboration and trust. As a former secondary teacher and administrator, the researcher decided to investigate the possibilities of community building in the high school.

The purpose of this study was to investigate teachers' perceptions of the presence of Senge's five disciplines in one high school in Georgia, and to determine the evidence that demonstrated the existence of the five disciplines. The researcher used a survey instrument that consisted of 42 items that was designed to represent each of Senge's five disciplines and to answer the research questions. The study is an integrated phenomenology that also used interviews, photographs, and documents and artifacts to investigate the lived experiences of the core-subject high school teachers.

The data collection consisted of scheduled one-on-one interviews with five core-subject department heads. The interviews were recorded and then transcribed. The anonymity of the participants was protected by using pseudonyms and/or numbers for participants. The transcriptions were voided of any reference to actual names of people, schools and locations. The researcher used reduction and elimination and an expert in qualitative methodology to aid in categorizing and coding the data to identify themes.

In the present chapter, the researcher used the findings related to each research question to draw conclusions and to consider the implications from the study.

The overarching question for this research was: How are Senge's five disciplines of a learning organization applied in one selected Georgia high school to illustrate a professional learning community? The following secondary questions guided the over-

arching research question: All of the research questions correspond to the five disciplines of a learning organization.

1. What are teachers' perceptions that Senge's five disciplines exist within the school?
2. What evidence of Senge's five disciplines demonstrates that these disciplines are present in this school?
3. What is the evidence that a professional learning community exists at this school?

Each of the five disciplines, according to Senge (1990, p. 373), can be thought of on three distinct levels:

- practices: what to do
- principles: guiding ideas and insights
- essences: the state of being of those with high levels of mastery in the discipline

Discussion of Findings

The purpose of this study was to describe the perceptions of teachers and define the evidence in a high school regarding the presence of behaviors associated with Senge's five disciplines of a learning organization. Senge's five disciplines of a learning organization served as the conceptual framework for this study. The researcher used a 42-item survey designed to guide the quantitative inquiry into the teachers' perceptions and answer the overarching research question and research questions number 1 and number 3. The survey provided data as to a school's development as a learning organization and on each of the five disciplines. Additionally, the qualitative portion was designed to answer the overarching research question and research questions number 1 and number 3. This

was guided by a 30-item teacher interview protocol to investigate the lived experiences of the teachers in this school and to provide data as to teachers' perceptions of the presence of the five disciplines at their school. Document and artifact collection, and photographs were used to provide evidence of the presence of the five disciplines and answer the overarching research question and research question number 2 and number 3. Findings from research questions 1 and 2 were blended to answer research question number 3 and the overarching research question.

The researcher chose a suburban high school in Georgia that was in the second year of implementing common planning time in order to foster a learning community. Of the participants, twenty-two took part in the on-line survey, and five participated in individual interviews with the researcher. Because this study was concerned with Senge's learning organization disciplines, the discussion of the findings are presented below according to Senge's (1990) five disciplines and the themes that emerged from teacher interview data.

The researcher was looking to find the data to report the perceptions of teachers, and the evidence to support the presence of Senge's five disciplines being applied in a high school to illustrate a professional learning community. The findings indicated that this school is not a professional learning community. This section is organized by the five disciplines and will discuss the relationship between the findings and the research questions.

Research Question 1

What are teachers' perceptions that Senge's five disciplines exist within the school?

Personal Mastery

Senge (1990) asserts that people with a high level of personal mastery have a special sense of purpose behind their vision and goals. They live in a continual learning mode. Teachers reflect regularly on their current reality and on their personal vision of the future. Risk-taking and experimentation with new practices are expected and individuals are encouraged to challenge the status quo. Schools practicing personal mastery encourage and support the personal growth and changing practices of teachers. They structure time and processes for personal reflection and develop an ethos of continuous learning (Fullan, 1995). Fullan's theory of educational change is drawn from Senge's (1990) ideas. Fullan's ideas of the moral purpose of teaching can be compared to Senge's disciplines of personal mastery and shared vision. Fullan stated that the moral purpose is something every good teacher possessed when they entered the field. The teachers' desired to make a difference in student's lives regardless of background, and wanted to produce citizens who live and work in complex societies.

In response to research question 1, the data indicated that the teachers at Morris High School were involved in a variety of activities that could be linked to the development of personal mastery on an individual level. Cibulka and Nakayama (2002) list personal and professional learning, and resources to support teaching and learning, as success factors in defining the components of successful professional learning communities. Teachers perceived that the administrators encouraged them to learn, provided the necessary resources, and provided training either on-site or by sending staff

members to workshops and conferences. But they did not structure time for personal reflection. Nor was there any attempt by teachers to challenge the status quo. Data from the teachers' surveys indicate that teachers were afraid of reprisals should they voice an unpopular opinion.

Teachers' reliance on the administrators to solve their problems was evidence of a school that retains a traditional hierarchy of leadership. The theme that emerged concerning personal mastery was administrative support. Although teachers' "perceptions of the administration was highly favorable, the findings showed that the leadership style was the traditional style- where there are "clear directions and well intentioned manipulation to get people to work together toward common goals" (Senge, 1990, p. 338). Senge goes on to say that "people who have a sense of their own vision and commitment would naturally reject efforts of a leader to get them committed" (p. 338).

Teachers at Morris were dependent on the administrators for their vision rather than relying on their own visions. In a learning organization, according to Senge (1990) the teachers practice personal mastery and the leaders are designers, stewards, and teachers. This was not evident at Morris High School.

Teachers were aware of their inefficiencies and voiced a concern about their lack of knowledge and skills. Senge, Cabron-McCabe, Lucas Smith, Dutton and Kleiner (2000), write "what you want and what you have-often creates a state of tension that, by its nature, seeks resolution" (p. 59). People with a high level of personal mastery are acutely aware of their ignorance. Senge (1990) calls this 'creative tension'. Creative tension is the difference between a person's view of their current reality and their vision of how they wish things to be. This has been posited as the source of motivation for

change. Senge (1990) makes a distinction between creative tension and emotional tension. As stated earlier, creative tension motivates, but emotional tension can be energy draining. In this study, the researcher found during observations and interviews that focusing on test results from state and district assessments created emotional tension, and not having the time to clarify their own personal vision of what they wanted for themselves and their students, created energy draining experiences. (Table 8)

Mental Models

Overall, Morris High School was not practicing the discipline of examining mental models on an organizational level. This discipline's core task is to bring mental models to the surface, to discover and speak about them with the least amount of defensiveness (Senge, Kleiner, Roberts, Ross, & Smith, 1994). Mental models limit people's ability to change because "in any new experience people are drawn to take in and remember only the information that reinforces their existing mental models" (Senge et al., 2000, p. 67). The data in this study indicated that teachers held their own assumptions and pictures about their roles; however, there were few opportunities to voice these mental models to each other. Fullan (2001) pointed to the importance of professional dialogues as a way to improve schools. He suggested that time should be provided for collaborative interactions. Morris High School was providing some support to the common planning teams so they could work together on lessons and curriculum, although not all teams were functioning well and teaming was not throughout the organization. The administrators did make this time available every nine weeks for the core subject teachers. Teacher interview participants talked about the necessity to change classroom teaching practices and student materials, in order to work with those students

on a lower level as a result of changing demographics. One teacher talked about changing demographics, new lower-income family housing in the community, and the discipline problems created by a group of 30 black students who were singing and dancing at a football game. This teacher reports that these students are ostracized by the rest of the community. All teachers interviewed were of the opinion that because of low-income housing in the community, these students have lower skills. These teachers have used cause and effect to label a group of students at the high school. Senge (1990) calls this thinking “leaps of abstraction”. This occurs, according to Senge, when people substitute a generalization for specific behaviors. Senge posits that first, one must become aware of ‘leaps of abstraction’, then question and test the generalizations in order to find the reasons behind another’s actions. Senge et al. (2000) argue that single loop learning is less effective in complex systems. They said, “The problem is not how well you do what you do but what you choose to do in the first place” (p. 94). In order to deal with complex situations, they suggest double loop learning that incorporates time in the reflection phase for thinking about the way in which you think. They argue that attention should be given to each stage before moving to the next one. They say the first two phases, observing and reflecting (double loop), are most important and the most difficult. The other phases are deciding, and doing.

All interview participants mention not having enough time to do all the things that they would like to do both personally and professionally. Two important aspects of mental models are having the time set aside for reflection and time set aside for dialogue. Although there was evidence of individual self-reflection, the school as an organization, did not collectively practice the discipline of mental models. The theme that emerged

from teacher interviews concerning mental models was that there was a lot of individual self-reflection. The teachers said they reflected on personal and professional issues, but shared thinking was not evidenced. It is vital to have shared thinking and reflecting in a learning organization. DuFour and Eaker (1998) believe that reflective dialogue brings awareness of school culture, facilitates discussion of improvement areas, new ideas in education, and celebrates success. An important mission for the administration is to find more time for teachers to dialogue and reflect. It is easy to understand why this discipline is difficult for teachers, because finding the time for teachers to explore their own assumptions and take a deep look inward can be difficult. The surveys indicated that one hundred percent of the teachers say they take time to think about what happens in their classes, and how it agrees with their professional beliefs; however, only sixty-eight percent felt that they asked questions of their colleagues about why they did the things they did educationally. For Morris High School to grow there must be opportunities to bring these assumptions and beliefs to the surface as a guide in all decisions. The findings provided some evidence that the discipline of mental models was present individually, but it had not grown on an organizational level (Table 9).

Team Learning

At Morris High School, teachers met in teams and made collaborative decisions regarding lessons and curriculum. Interview and survey data indicate that teachers say they agreed on the principles and practices they would follow to create their desired future. By agreeing, teachers were saying they could be counted on to act in ways that complemented each other's actions. It was clear that Morris High School initiated team learning through common planning time, but was not practicing the discipline of team

learning at an organizational level. The key features of team learning as defined by Senge (1990) are: collective intelligence, alignment, dialogue, integrated dialogue and discussion, defensive routines and practices that support suspending assumptions, acting as colleagues, surfacing own defensiveness, and practices that support practicing that which is learned. A schedule of common planning time meetings indicated that four half days identified for departmental common planning time did not create a learning environment that supported teachers' ability to share knowledge as well as their lack of knowledge and misunderstanding. According to Senge (1995), team learning is explained in two ways: First, team learning allows diverse teams to combine their abilities in developing synergistic skill in a supportive setting. Second, team learning allows opportunities for dialogue and resilient approaches (Senge, p. 259). On an individual level, interviews indicated that some teachers have been in and out of each other's classrooms, or meeting in the hallway on an informal basis. They said they knew each other's strengths and were able to call on each other for advice and assistance. These attempts at collaboration are rewarding; however, the organization is not practicing the discipline of team learning according to Senge, (1990).

The theme that emerged concerning team learning was common planning time. This theme conveyed the concept of collaboration within the teams at Morris High School. Teacher interviews indicated that most teachers valued team learning because it brought them out of isolation for a short period of time and created opportunities for them to share and to develop new social relationships. Interview participants were very excited about the time spent in common planning with the feeder middle schools, thereby,..."continually fostering other learning teams through inculcating the practices

and skills of team learning more broadly” (Senge, p. 237). Team learning in an organization has three critical dimensions. First, there is the requirement to think in depth about complex issues. Second, there is the prerequisite for innovative, synchronized action, such as, operational trust. Third, there is the position of team members on other teams (Senge, 1990). The initiation of vertical teaming at Morris High School will add to teachers’ knowledge and provide an alignment of the curriculum between the middle and high school. Teams from Morris High School will team with teachers from the middle schools. These teams, although not diverse in subject matter, are a starting point toward team learning.

Document and interview data indicated that common planning time was a top down decision and originated about two or three years after the principals in the school district attended a Learning Focused Schools’ training, and when Georgia Professional Standards unit development became a necessity. The Learning Focused Schools training was provided by Max Thompson and Associates. The school’s decision to have common planning, according to the Director of Student Learning (High School Curriculum), was school-based. The principal and the school’s leadership team determined when and how common planning was to be implemented. There was no mention of teacher training in the skills required for team learning. Common Planning Time was initiated at Morris High School in 2004. Bruce Joyce (2004) explained that teachers must be allowed to first experience and/or practice collaborative inquiry before “mandating” its use in schools. Additionally, the skills required for team learning must be practiced, according to Senge (1990). He says that through practice, we can successfully identify defensive responses, learn to better suspend personal biases towards others and

their ideas, and work toward building a cohesive and productive team. Additionally, Andy Hargreaves and Michael Fullen (2002) say that it is important that a collaborative culture is not imposed, but is either already present or facilitated by activity. They go on to say that if it is forced, there are the unwanted results of reduced collaboration. They also say that because of the poor school structure, high schools are not conducive to extensive collaboration. To combat these impediments, they say that restructuring and reculturing must be done simultaneously. Teams should meet at least once each month, and each teacher in the school should be part of at least one team. Teacher interviews indicated that only core subject teachers met in teams. Based on observations, there was no agenda at these meetings, and data from interviews reported that department chairs or older teacher volunteers acted as facilitators; yet, no minutes of what was discussed or finalized were written. These departmental meetings were further divided into subject area teams, i.e., teachers who teach the same subject branched off into smaller teams. The topics discussed were lesson plans and/or curriculum and problems teachers were having with discipline. The administrators assigned to each department supported these meetings by dropping in for short visits. Teachers did not have learning and reflecting time, nor was there time for teachers and administrators to learn together. Larry Lashway (1998) concurs that time for collective inquiry should be scheduled to give teachers opportunities to practice in a workshop setting, and encourage teachers to use new techniques. At Morris, teams meet once every nine weeks for two to three hours. The teachers had little direction for what to do within the teams, and time for teams to meet on a regular basis was not provided. Mary Anne Raywid (1993) agrees and describes the

importance of creating collaborative planning time in schools. Collaborative planning time, she says is essential to a school's success.

Senge (1990) stated that team learning is vital because "teams, not individuals, are the fundamental learning unit in modern organizations; unless the team can learn, the organization cannot learn" (p. 48). Team learning, according to Senge (1990), builds on the discipline of developing shared vision. It also builds on personal mastery, for talented teams are made up of talented individuals" (p. 236). People need to be able to act together. When teams learn together, Senge suggests that, not only can there be good results for the organization, but the members will grow more rapidly than could have occurred otherwise (Table 10).

Shared Vision

Morris High School was not practicing the discipline of building shared vision, but data from interviews and surveys indicated that many of the teachers had a personal vision about their classrooms and how they would like their classroom and school to function. The key features of a shared vision are: commonality of purpose, partnership, commitment vs. compliance, allowing freedom of choice, and acknowledging current reality (Senge, 1990). A shared vision moves from the personal vision level (personal mastery) to the organizational vision level and tries to answer the question "What do we want to become?" In learning organizations, these individual and organizational visions become intertwined; "they create a sense of commonality that permeates the organization and gives coherence to diverse activities" (Senge, 1990, p. 206).

Although certain conditions were present that could lead to a shared vision, there is evidence that the discipline shared vision does not exist on an organizational level at

Morris High School. The district mission statement, school mission statement and school slogan all indicate that student success is their goal. No data indicated that teachers had enrolled in these visions. Interview and survey data indicated that many teachers had a personal vision of how they wanted their classroom to be; however, their personal visions did not extend to a shared vision among the entire organization. Senge's research found that in most organizations, there are, comparatively, a small number of people enrolled in this vision and even fewer dedicated to it. In 1999, Scribner, Cockrell, Cockrell, and Valentine investigated the development of professional communities. They found that deeply rooted bureaucratic traditions may pose dilemmas. They say that principal's leadership is a most important facilitating or impeding factor.

The theme that emerged from teachers' interviews concerning shared vision was that there was a lot of collaboration on individual levels between teachers since the implementation of common planning time. The teachers said they share materials, and lessons, and collaborate on what they want their classrooms to look like. Protheroe (2004) reported that a shared vision and values focused on student learning, shared practice, creating and sustaining trust, and collaboration. On the other hand, Senge (1990) states that a strong personal vision must be present before there can be a shared vision. And the content of a true shared vision can only emerge from a coherent process of reflection and conversation" (Senge, Kleiner, Roberts, Ross, & Smith, 1994, p. 299). The teachers at Morris did not have the opportunity to reflect and discuss personal visions.

Hord, Meehan, Orletsky and Sattes (1999) found that collaboration, sharing ideas, a shared vision, collective learning, and a strong leader who shared decision-making power with the staff are keys to successful professional learning communities.

Data from teacher interviews did not indicate that the administration was a part of this collaboration time. They stated that the administrators only dropped by for short visits during common planning time. Teachers in a professional learning community share a mental model of the purpose and goals of the school that focuses on the improvement of student learning. Hord (1997) said that shared values need to be more than a collaborative view, but it should reflect the mental image of what is important to all the individuals in the organization. The teachers at Morris felt that the purpose of the school had not evolved out of a common vision. In a professional learning community a shared vision must guide all decisions, referenced regularly and appear on all school communications. It should be a part of everyday work of teachers (Hord, 1998) (Table 11).

Systems Thinking

The discipline of systems thinking is not present at Morris High School. For one thing, the departmental teams are disconnected. Not knowing what the other teams are doing has brought about some unfriendly remarks and feelings. Systems thinking has implications for changing this behavior by offering “a language that begins by restructuring how we think” (Senge, 1990, p. 69) for seeing the whole and the underlying parts. Seeing the organization as whole, the structures that have strong influences on behavior and “thinking in terms of processes of change” are ideas from systems thinking that have profound implications for professional development and change in schools (Senge, 1990, p. 65). Morris High School was not developing the discipline of systems thinking at an organizational level.

All interview participants referred to Morris as a school for the college bound student. This perception of Morris High School is evident in the theme curriculum and

student achievement that emerged from interview data. Since its inception in 1988, Morris has had a reputation for high achieving college bound students. Data indicated that current students wanted classes in technology and career preparation; therefore, technology and career preparatory classes have been added, and technology and career preparation diplomas are available to students. The demographic shift has brought about change in the curriculum. Senge (1990) posits that whenever there are problems in an organization, systems thinkers will see them as “arising from underlying structures rather than from individual mistakes or ill will” (p. 375). At Morris High School, interviews and documents provide evidence that demographic changes have created concerns about student learning in the school. Teachers report that the population of lower-skilled students has increased, and they are deficient in knowledge and skills for teaching these students. Senge (1990) warns us that without systems thinking, the best that our organizations can do is adaptive learning which focuses on coping skills which ensures survival. On the other hand, generative learning develops new understanding and capacities that enhance “our capacity to create” Senge, 1990, p. 14). Examples of teachers’ attempts at adaptive learning are evidenced by strategies from Learning Focused Schools where teachers bulletin boards display word walls; or vocational/technical programs have been added to the curriculum; or vertical teaming with teachers collaborating with middle school teachers; but, there was no ‘having a sense of the whole’. Data indicated that the teachers were focused on their individual classrooms and not on the entire organization. The teachers and administrators at Morris do not come together to work on projects. An early example of a case study on the principal’s commitment to the notion of community and everyone in the school working

toward one common good – greater student achievement – was done by Hagstrom, (1992), Denali Elementary School: Alaska’s Discovery School. The primary pieces that came about at the Denali School include teachers as learners, shared leadership, and continued community.

This sense of community is the essential feature of systems thinking as identified by Senge (1990): holism, interconnectedness, policy resistance, and leverage, structure influences behavior, simulation and systems archetypes. The idea of a school as a learning community suggests a kind of connectedness among members that resembles what is found in a family, a neighborhood, or some other closely knit group, where bonds tend to be familial or even sacred” (Sergiovanni, 1992, p. 47). The emerging theme from teacher interview data was curriculum and student achievement. The culture at Morris has been one that was concerned with student assessment and student data for the college bound student. Because the No Child Left Behind Act put pressure on schools to respond to all student data, schools must develop the ability to use data for student improvement. Strahan (2003) discussed one example of how data was used to foster school improvement. She noted that data driven dialogue focused and supported the continued improvement in both teaching and learning. She also suggested that internal data collection allowed for continued monitoring and improvement.

Common planning at Morris does not provide the opportunity for teachers to feel a sense of connectedness to the whole. The teachers do not meet as interdisciplinary teams; the interviews do not mention teachers analyzing the impact of an action as it is related to another action; and only one teacher made a reference to the school’s mission statement. At Morris, leadership is needed to bridge the gap between adaptive learning

and generative learning. Hord (2004) argued that without strong leaders who are willing to become learners themselves, and who empower teachers to change, a professional learning community is impossible (Table 12).

Research Question 2

What evidence of Senge's five disciplines demonstrates that these disciplines are present in this school?

Personal Mastery

In response to research question 2, findings from photographs, and documents and artifacts indicated that there is evidence of personal mastery in teachers' attempts at generativeness and alignment. Photographs of the Learning Focused Schools' strategies are clearly visible in most classrooms, and documents relative to departmental meetings and scheduled common planning meetings reflect a concern for teachers' learning. There are numerous examples from the findings to suggest that personal mastery exists at Morris High School. Documents and photographs list the districts support of professional learning communities and the emphasis placed on professional learning communities; time is set aside at the school for teachers to meet in departments; there are departmental discussions of teachers learning needs, there is training in Learning Focused Schools (LFS); and teachers classrooms reflected bulletin boards as examples of strategies from (LFS) word walls, active learning, and teacher collaboration; yet, Morris High School was not practicing the discipline of personal mastery on an organizational level. There were few indications of a sense of interconnectedness throughout the organization (Table 8).

Mental Models

The generation of mission statements, graduation goals and school slogans are examples of a district and school providing an opportunity to surface its mental models. Although there is evidence of documents of mission statements, graduation goals, the school's slogan, and teacher interview discussions of analyzing data, there is insufficient information to determine if mental models exist. Morris High School's mission statement is: "to inspire responsible, life-long learners". Eaker et al. (2002) noted that in professional learning communities; the mission statement goes beyond general statements such as "all students can learn." Instead, the authors argued, the mission statement should clarify what students should learn, how the school will assess that they have learned, and what the school will do when students do not learn. They further suggested that vision statements should form blueprints for continuous school improvement and be based on research into best practices. In each case, Eaker et al. implied that the mission and vision statements should always be measurable and tangible to the school community (Table 9).

Team Learning

Documents and photographs provided evidence of teachers' visions for sharing, and departmental discussions of teachers' professional needs; however, there is no evidence that suggests that team learning exists at Morris High School on an organizational level (Table 10).

Shared Vision

The researcher observed that the district's mission is: "Providing a world-class education for all students" and includes three guiding principles. District and school documents indicated that improving student performance was an important goal for the

school and district. Documents of the mission statement and graduation goals provided evidence that teachers are committed to carrying out the vision of the school; however, this is not visible on an organizational level (Table 11).

Systems Thinking

There was no interconnectedness and sense of holism that was evident in the photographs, or documents and artifacts at Morris High School (Table 12).

Research Question 3

What is the evidence that a professional learning community exists at this school?

In response to research question 3 the researcher blended the data from research questions 1 and 2 in order to discuss the findings. In the review of the literature, building a learning community is described as a “shared quest to do things differently, to develop new kinds of relationships, to create new ties and to make new commitments” (Sergiovanni, 1994). A professional learning community focuses on teaching and learning, learning through collaboration, and opportunities to deal with ideas and values. Stein (1993) studied three schools which had seen dramatic improvement in performance while evolving their cultures to become professional learning communities. In all three cases, the district’s expectations and support were crucial to the change efforts of the schools. In this study, the researcher questions the district’s practices as a professional learning community. Documents provide evidence that teaching and learning are priorities in the Laurel County School district, but there is no documentation of district leaders or building administrators’ trained in the processes necessary to guide the implementation of professional learning communities. Scribner, Cockrell, Cockrell, and Valentine (1999) believed that a principal’s approach to leadership influences the extent

to which professional learning communities are established. They went on to say that leadership can either facilitate or impede the establishment of a professional learning community. Data from this research confirm the importance of leadership support. These findings support the work of Lambert (2005) who argued that administrators must be clear with teachers about their role in decision making. She said they must be willing to relinquish some of their authority to teachers. Richardson (2003) suggested that teachers required training to be able to participate meaningfully in the decision making process. There was no reference to training made by the teachers at Morris. Unquestionably, the school leader's primary responsibility is to promote learning in others (Barth, 2000). And Hord (1998) suggested that supportive and shared leadership develops as the school's formal administrative leader – the principal – accepts a collegial relationship with teachers, shares power and decision making, and promotes and nurtures leadership development among the staff. According to Senge's five disciplines of a learning organization Morris is not a professional learning community. At Morris personal mastery is evident on an individual level, but the school does not provide time for teachers' development and interpretation of their own personal visions. Mental models are not evident because there is no structured time on a regular basis for teachers' to have dialogue and reflection as a team. Team learning is being implemented through common planning time, but teams are not interdepartmental and do not meet on a regular basis. A shared vision was not evident at Morris. Teachers' perceived that they were not a part of the vision. Systems thinking was not evident because school did not allow for the detection of patterns and interrelationships in solving problems.

Barriers

Another theme, barriers, emerged from interview and survey data. The teachers perceived that time, teacher resistance, and changing demographics were barriers to their success. All teachers wanted more time for collaboration with colleagues and for family, but one teacher was reluctant to be away from classroom responsibilities to attend common planning meetings. Raywid (1990) offers strategies for rearranging the current school schedules in order for common planning time to occur as: “saving up for planning days/half-days, adding time to school day/year, larger classes, or more efficient use of time. Although most teachers interviewed expressed satisfaction with the release time to participate in common planning time, there was concern regarding the time they were out of the classroom, and the impact that would have on their students? Interview teacher #4 expressed feelings of disdain regarding the scheduled time away from students. The researcher believes that based on data from participants’ demographics, teacher nostalgia surfaced in interview teacher #4 who also voiced an opinion that common planning time was just another thing to do at school. This teacher was at Morris High School during the original principal’s term. Teacher nostalgia, according to Goodson, Moore and Hargreaves (2006), is important in understanding change. They say “it acts as a prompt and a guide to action and commitment in the ongoing, everyday life of teaching and schooling...and a source of resistance to changes...that teachers have cherished for decades” (p. 43).

Teacher resistance was perceived as another barrier. Some faculty resisted by not getting involved in the common planning process. Others resisted by refusing to follow the lessons as agreed upon by team members. Data from teachers’ perceptions on

changing demographics indicated that these demographic shifts in the community population precipitated the need for change. Many teachers continued to work in isolation when returning to their classrooms after common planning meetings. Interview participants perceived that these teachers did not share a common goal and vision of the department. Hargreaves and Goodson (2006) call this teacher generations and teacher nostalgia. They say that these teachers remember their school from the past and make comparisons with the current state of the school and community and the difficulty they experience in connecting with their changing students. An additional barrier from findings from survey participants indicated that: when teachers made decisions in their classrooms, they did not consider how it would impact their colleagues; some teachers felt isolated; the staff had not agreed on the purpose of the school; and not all teachers trusted their leaders to solve problems. Although some teachers were grieving over how the school was changing, others remained positive.

Conclusions

Based on the findings from interview and survey responses, documents, observations and photographs, the researcher has drawn conclusions for each of the five disciplines of a learning organization. Morris High School does not manifest all of the five disciplines of a learning organization and does not illustrate a professional learning community. The school, in its eighteen years of existence, has experienced administrative changes, and over a period of five years, the community has experienced a slow demographic change along with accountability mandates resulting in the necessity to make changes in the classrooms. The problems for some teachers include a cynical view

of the current climate and direction of the school, and a failure to buy into the current vision of common planning time for core-subject teachers.

Conclusions drawn from the results of data relative to personal mastery affirm that teachers perceived that their administrators provided them with the support, resources and encouragement needed to achieve personal and professional mastery. Additionally, there is evidence to support that personal mastery is present on a limited level in teachers' classrooms and through documents and photographs; however, survey participants perceived a discrepancy between their visions of the school and classroom and the reality of what was taking place. Conclusions drawn from the results of data from interview participants, relative to mental models, affirm that teachers' perceived that what was once a premiere college-preparatory school experienced change in the demographics of the community and the school clientele. This gradual change happened before many inside the school realized what was happening. Many teachers continued to practice what had always been successful for them in the classroom. This mental model had become a part of the culture at Morris High School. As the community and students began to change, the focus shifted to include technology and career preparatory classes. Another conclusion to be drawn from mental models is related to teacher generations. Common planning time created divisions between older and newer teachers. Educators refer to this as "teacher nostalgia" because it speaks to the good old days for those teachers who worked at the school and saw the reform attempts over the years. Due to teacher generations and teacher nostalgia for the good old days, some teachers continued to maintain their old practices. As new teachers began to replace the retiring teachers, teachers began to admit that they have a responsibility to teach all students. This change

in mental models meant a change in instruction and methods. Teachers began to admit that this change must be made to accommodate the students who were new to this community. Some teachers did not look at the overall conditions of learning. (Delete The reason Morris High School was not practicing mental models on an organization level could be attributed to the interview participants' views or perceptions of the lack of time.)

Conclusions drawn from the results of the study affirm that team learning through common planning time has been beneficial to the majority of the core-subject teachers because it brought them out of isolation for a brief period and gave them time to work together. Common planning time also gave the teachers the opportunity to form relationships and grow closer as a department. This mechanism of common planning should provide the structure through which a professional learning community could begin to take place. On the other hand, implementation of professional learning communities at the secondary level continue to pose different problems from the problems experienced at the elementary level. It is very difficult to implement second-order change at the high school level because departmentalization at the high school continues to isolate teachers. Because of departmentalization, the high school structure is a barrier to the implementation of professional learning communities.

Departmentalization created boundaries at Morris High School in terms of social relationships, because relationships were formed between those teachers who shared a common ground. Educators call this "balkanization." At Morris High School sub cultures have formed in departments. Professional learning's are kept within the departments and not shared with the organization as a whole. These cultures have particularly affected the school in its attempt to implement reform. Also, there was some resistance to

interdependence and sharing across departments, but there were some sparks from a teacher outside the core subject teachers that might be used to integrate interdependence. Additionally, teachers are beginning to implement vertical teaming and meet with middle school departments in common planning.

Conclusions drawn from the study affirm that shared vision was not practiced at Morris High School. Documents and photographs affirm the school's beliefs through goals and missions, pictures of student-centered classrooms, and observations of teachers sharing lessons and working on curriculum; however, there is no evidence to confirm that the school is involved in a partnership, a commonality of purpose, a sharing of personal visions. The teachers perceived that they never met to discuss the purpose of the school. They never met to share a picture of their visions nor listened to others' visions of what they wanted for the organization. Thus, it is clear that because the teachers hold diverse visions of the purpose of the organization, it prevents the organization from moving the school toward a common goal.

Conclusions drawn from the study affirm that systems thinking was not practiced at Morris High School. The tools of systems thinking help an organization see the underlying patterns and how they can be changed effectively. A lack of the use of systems thinking at Morris was evident in teachers' perceptions of cause and effect and taking the easy way out. It is concluded that the organization needs assistance in determining the underlying problems. Moreover, teachers' perceived that lower-socioeconomic students required lower level classes. There is a lack of interconnectedness and holism in dealing with changes. This attention to first order change continues to push the fundamental problems of the system deeper into the culture of the organization and does

not allow for looking at the system as a whole. Second order change is difficult at the high school, when only one element of reform is considered. The structure of departments does not lend itself to cross-instructional dialogue; therefore, common planning time is difficult to establish across disciplines.

Conclusions drawn from the study about leadership affirm that the importance of the organization's leader in the implementation and maintenance of a professional learning community cannot be underestimated. A professional learning community is characterized by an administrator that is willing to dispense with the traditional power structures in favor of structures based on trust. The leadership at Morris is perceived as caring and supportive of teachers, and teachers felt free to ask for resources needed for their classrooms, but did not provide teachers with the authority to make decisions that affected them in areas such as budget and resources, and time and scheduling. There still remains the need for strong leadership in a learning community. It is true that the administrators at Morris portray a centralized, hierarchical style of leadership, but that will not sustain the implementation of a learning community.

Conclusions drawn from the study affirm that there are barriers to implementing a professional learning community at Morris High School. Data from interviews indicated that teacher resistance to change, time, and changing demographics were barriers. Survey items include isolation, a lack of skills and knowledge, discrepancies, fear of reprisal, and departmentalization are barriers to a professional learning community. These conclusions support other research relative to schools involved in the change process.

Implications

This research into a school's development into a professional learning community may contribute to the knowledge base, offer insights for others involved with schools, and assist other schools to become professional learning communities. Based on the findings of this study, the following should be considered: This information may strengthen the school district itself by providing information to others in the district who would like to develop a professional learning community at their school. The findings may add knowledge about professional learning communities that may be beneficial to districts, researchers, and educators in advancing processes related to changes that affect the culture, structure, roles and responsibilities within high schools. These findings suggest to policy makers that mandated reform is a barrier to sustainable initiatives. The findings may have significance for both participants and educational researchers and may allow educators to learn how the culture of a high school and the interactions within this culture can affect the professional learning community. These findings suggest to teachers in centralized hierarchical organizations that sharing personal visions may contribute to change in the structure of the organization. The researcher's findings may also assist educators and researchers in understanding the extent to which Senge's five disciplines of a learning organization exist within professional learning communities. Students in principal preparation programs may benefit from the information.

These findings suggest to administrators that schools need leadership from principals who focus on advancing student and staff learning by guiding and developing a shared vision, collaboration, and teacher empowerment. The findings also suggest that the professional learning community is an approach to school reform that focuses on the

need to address second-order changes that speak to ways to transform the value and belief systems that add to a school's culture. Morris High School continues to address problems as first order change with a continued focus and extension on the past. Teachers' perceptions suggest a need for reculturing because the school's almost exclusive focus on first-order change is part of the reason for the failure of the school to implement a learning community. These findings suggest that for the long term, Morris High School will never become a professional learning community until the whole school begins to break with the past, practice second order change and implement the disciplines of a learning organization.

Recommendations

1. Conduct this study with teachers and administrators in one high school to determine the differences in perceptions between the two groups.
2. Replicate this study in a high school after the teachers and administrators have undergone training and understanding of Senge's learning organization disciplines that could help in the development of a learning community.
3. School administrators should ensure that structures exist that allow teachers the training for the decision making process.
4. School administrators should design and implement a training program to ensure that all teachers are knowledgeable about working with lower socio-economic and diverse populations.
5. The administration should implement a process to develop the school's purpose and refine the school's mission so that they reflect the shared beliefs of the entire organization.

6. The school should validate all decisions against the schools shared visions and mission statement.
7. The administrators and teachers should evaluate the ways in which time is being used in common planning teams to ensure that the focus is on strategies to help teachers to implement the purpose and mission of the school.
8. Administrators must provide the time for teachers to reflect, provide training in meta- cognitive skills, and provide the space necessary for teachers to learn and practice the skills that foster openness and discussion.
9. Administrators should provide time for teachers to interact during the school day.
10. Administrators should assess the ways in which the physical structure of the building prevents teachers from interacting and make accommodations for these structural impediments.
11. During common planning time in departmental meetings, teachers share and dialogue about their personal visions of what they want the school to look like, and then share these visions with the entire organization.

Summary

The researcher attempted to describe through integrated phenomenology, the perceptions of teachers and the presence of evidence to corroborate the existence of a professional learning community. Historically, high school teachers who teach in specific content areas have maintained an isolated position in the schools. Until recently, however, they were able to plan lessons and teach students while secluded behind closed classroom doors. Today, because parents and politicians are calling for more accountability and placing restrictions on public schools, teachers can no longer afford to

do business as usual without finding ways to work together to make learning successful for students and themselves. The purpose of this study was to look at a high school's attempt at reform through common planning time and determine if Senge's five disciplines of a learning organization were present. The school studied was in its second year of implementing team learning/ common planning time, one of the practices related to organizational learning, and as an outgrowth of team learning, the researcher attempted to learn if Senge's five disciplines were present. The findings indicate that Morris is not a professional learning community because it does not apply all of the five disciplines of a learning organization.

Concluding Thoughts

The researcher found that this high school is not practicing the disciplines of a professional learning community on an organizational level. The common planning procedure has begun to put in place procedures that have resulted in a new sense of belongingness for some organization members, but the system as a whole is not a part of this attempt at holism. All teachers involved in common planning time say they are committed to the vision that their departments have developed, but teachers outside the core subject areas remain in isolation. Teachers are not involved in the decision making process but the department heads served in limited leadership roles and were involved in some decisions that affected the whole school. The creation of professional learning communities at the secondary level has become a passion for this researcher. Observing and investigating in this area has brought about the importance of restructuring and reculturing secondary schools in order to create second-order change. Senge's five

disciplines of a learning organization is the tool that will bring about sustainable change and highlight the importance of developing relationships to facilitate change.

Morris High School is in the process of undergoing a transition created by changing demographics, politics and the state of the economy. Once a suburban retreat for the wealthy, the land developers have opened up the community to mass producing lower socio economic housing. This prestigious public school must now educate students who do not look like, dress like, act like or talk like the majority of the students from the community. Consequently, the students feel like outsiders, according to one teachers' perception, and they are screaming for attention by creating discipline problems at the school. Teachers' mental models guided and shaped their actions and beliefs toward these "new students" at the school. Clearly, the teachers saw these student's as needing a dumbed-down curriculum once assuming that a lower socio-economic level meant lower skills. Schools are social institutions that mirror the larger society, and ignoring the changes in demographics by offering slower classes or pretending that these students will be assimilated into the culture of the school without some hard work and implementing systems thinking, is asking for the dissolution of the school as it is known.

The data have validated and strengthened the researcher's beliefs in the significance of connectedness in the schools. Researchers have expressed the belief that the challenge before us is to understand the change that organizations of learning are being asked to make and how, within the organization, people will have to change if the organization is to survive. The researcher has no doubt that that assertion is real. The administrators are the leaders and stewards of the organization and must model the disciplines of a learning organization as they lead the leaders. The survival of the public

schools in America will depend on the capacity of the school's members to assess current reality, determine the need for change and collaboratively work to bring about this change.

REFERENCES

- Aldridge, J., & Goldman, R. (2002). Current issues and trends in education. Boston, MA: Pearson.
- Argyris, C., & Schon, D. A. (1978). Organizational learning: A theory of action perspective. Reading, MA: Addison-Wesley.
- Arif, M., & Smiley, F. M. (2003). Business-Like accountability in education: Commentary on Morrill to Baldrige. Education 123(4), 740-760.
- Arif, M., Smiley, F. M., & Kulonda, D. J. (2005) Business and education as push-pull Processes: An alliance of philosophy and practice. Education 125(4), 602-614.
- Barth, R. S. (1990). Improving schools from within: Teachers, parents, and principals can make a difference. San Francisco: Jossey Bass.
- Barth, R. S. (2002). The culture builder. Educational Leadership, 59(8), 6-11.
- Barth, R. S. (2006). Improving relationships within the schoolhouse. Educational Leadership, 63(6), 8-13.
- Berends, M. (2004). In the wake of A Nation at Risk: New American schools' private sector school reform initiative. Peabody Journal of Education, 79(1), 130-163.
- Berlinger-Gustafson, C. (2004). Building professional learning communities. Retrieved March 18, 2005 from <http://www.teachinflorida.com/teachertoolkit/PLC.htm>.
- Bjork, L. G., (1997). Continuous improvement: A post structuralist critique. In M. D. Richardson, Blackburn, R. L., Ruhl-Smith, C., & Haynes, J. A. (Eds.), The Pursuit of continuous improvement in educational organizations (pp.123-152), New York: University Press of America.

- Bogdan, R. C., & Biklen, S. K. (1998). Qualitative research for education: An introduction to theory and methods (3rd ed.). Needham Heights, MA: Allyn & Bacon.
- Bolman, L. G., & Deal, T. E. (1995). Leading with soul: An uncommon journey of spirit. San Francisco, CA: Jossey Bass, Inc.
- Caldas, S.J., & Bankston, C.L. (2005) Federal involvement in local school districts. Society 42(4), 49-53.
- Caldas, S. J. & Bankston, C. L. (2005). Forced to fail: The paradox of school desegregation. Westport, Conn: Praeger Publishers.
- Cibulka, J., & Nakayama, M. (2002). Practitioners' guide to learning communities. Creation of high-performance schools through organizational and individual learning. National Partnership for Excellence and Accountability in Teaching: Retrieved March 18, 2005 from <http://www.ericasp.org/digests/Guide.htm>.
- Clandinen, D. J. & Connelly, F. M. (1994). Personal experience methods. In N. K. Denzin & Lincoln, Y. S. (Eds.), Handbook of Qualitative Research (pp. 413-427), London: Sage.
- Cohen, D. K. (1996). Standards based school reform: Policy, practice and performance. In H. Ladd (Ed.) Holding Schools Accountable: Performance-based reform in Education. (pp. 99-127). Washington, DC: The Brookings Institute.
- Cohen-Vogel, L. (2003) Integrating accountability with choice: Implications for school Governance. Peabody Journal of Education, 78(4), 4-28.
- Collins, J. (2001). Good to Great. New York: Harper Collins.
- Creswell, J. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle River, NJ: Merrill

Prentice Hall.

Cummings, T. G., & Worley, C. G. (2005). Organizational Development and Change

Cincinnati, OH: South-Western College Publishing.

Deal, T. E., & Peterson, K. D. (1999). Shaping school culture. San Francisco: Jossey-

Bass.

DeMoulin, D. F. (1997). Building the foundation for quality education. In M. D.

Richardson, Blackburn, R. L., Ruhl-Smith, C., & Haynes, J. A. The Pursuit of

Continuous Improvements in Educational Organizations. (pp.15-34). New York:

University Press of America, Inc.

Denzin, N. K. & Lincoln, Y. S. (2003). Strategies of Qualitative Inquiry. Thousand Oaks,

CA. Sage Publications.

Deschenes, S., Cuban, L., & Tyack, D. (2001). Mismatch: Historical perspectives on

schools and students who don't fit them. Teachers College Record 103(4), 525-

547.

Dewey, J. (1916). Democracy and education. New York: Macmillan Company.

Doyle, L. H. (2004). Leadership for community building: Changing how we think and

act. Clearinghouse 77(5), 196-199.

DuFour, R. (2001). How to launch a community. Journal of Staff Development, 22(3),

50-51.

DuFour, R. (2004). What is a professional learning community? Educational Leadership,

61(8), 6-11.

DuFour, R., & DuFour, R. B. (2003). Building a professional learning community.

School Administrator, 60 (5), 13-18.

- DuFour, R., & Eaker, R. (1998). Professional learning communities at work.
Bloomington, ID: American Education Services.
- DuFour, R., Guidice, A., Magee, D., Martin, P., & Zivkovic, B. (2002). The student support team as a professional learning community. Building stronger school counseling programs: Bringing futuristic approaches into the present. ERIC document ED 464270.
- Eaker, R., DuFour, R., & Burnette, R. (2002). Getting started: Reculturing schools to become professional learning communities. Bloomington, IN: National Education Service.
- Ediger, M. (2000). John Dewey versus current educational trends. ERIC Document ED 445063
- Edmonds, R. R. (1979). Effective schools for the urban poor. Educational Leadership, 37(1), 15-24.
- Faigenbaum, D. H. (2003). Inquiring into practice: Teacher learning in a professional community. (Doctoral dissertation, Stanford University, 2003) Dissertation Abstracts International.
- Fullan, M. (1993). Change forces: Probing the depths of education reform. Bristol, PA: Falmer Press.
- Fullan, M. (2000). The three stories of educational reform. Phi Delta Kappan 81(8), 581-586.
- Fullan, M. (2002). The change leader. Educational Leadership, 59(8), 16-20.
- Elmore, R. F. (2003). A plea for strong practice. Educational Leadership, 61(3), 6-10.

- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). Education Research: An Introduction. White Plains, NY: Longman Publishers.
- Giles, C., & Hargreaves, A. (2006). The sustainability of innovative schools as learning organizations and professional learning communities during standardized reform. Educational Administration Quarterly 42(1), 124-156.
- Glesne, C. & Peshkin, A. (1992). Becoming qualitative researchers: An introduction. White Plains, NY: Longman Publishing Group.
- Goldring, L. (2002). The power of school culture. Leadership, 32(2), 32-36.
- Goldberg, M. F. (2004). The high-stakes test mess. Phi Delta Kappan, 85(5), 361-366.
- Green, R. L. (2001). New paradigms in school relationships: collaborating to enhance student achievement. Education, 121(4), 737-742.
- Griffith, J. (2003). Schools as organizational models: Implications for examining school effectiveness. The Elementary School Journal, 104(1), 29-48.
- Guba, E. G. & Lincoln, Y. S. (1981). Effective evaluation. San Francisco: Jossey-Bass Publishers.
- Gurley, D. (2000). Perceptions, behaviors, and organizational structures that foster Professional learning community in Kansas public elementary schools, Unpublished Doctoral Dissertation, Wichita State University, Dissertation Abstracts International 61 (06) 2123. (UMI No. 9975739)
- Hall, G. E., & Hord, S. M. (2001). Implementing Change: Patterns, Principles and Potholes. Boston: Allyn & Bacon.

- Hargreaves, A. (2002). Teaching and betrayal (1) Teachers and Teaching: Theory and Practice 8(3/4), 393-407.
- Hargreaves, A. (2005). Sustainable leadership. Independent School 64(2), 16-24.
- Hargreaves, A. & Goodson, I. (2006). Educational change over time? The sustainability and nonsustainability of three decades of secondary school change and continuity. Educational Administration Quarterly, 42(1), 3-41.
- Hipp, K. A. (2001). Learning about learning communities: A case study approach. A paper presented at the annual meeting of the American educational research association. Seattle, Washington. April 9-14.
- Hipp, K. A. (2002). Documenting and examining practices in creating learning communities: Exemplars and non-exemplars. A paper presented at the annual meeting of the American educational research association. New Orleans, LA. April 1-5.
- Hipp, K., & Huffman, J.B. (2003). Professional learning communities: Assessment-development-effects. A paper presented at the International Congress for School Effectiveness and Improvement in Sidney, Australia. (ERIC Document Reproduction Service No. ED 482255).
- Hipp, K. K., & Huffman, J. B. (2003). Professional learning communities: Assessment – development – effects. Paper presented at the International Congress for School Effectiveness and Improvement. Sydney, Australia. January 5-8.
- Holt, M. (2001). The comprehensive high school in the United States: A view from Europe and the United Kingdom. Journal of Curriculum and Supervision 16(2) 137-161.

- Hord, S. M. (1997). Professional learning communities: What are they and why are they important? ... Issues about change. 6 (1) Austin, TX: Southwest Educational Development Laboratory.
- Hord, S. M. (1998). Creating a professional learning community: Cottonwood Creek School. Austin, TX: Southwest Educational Development Laboratory.
- Hord, S. M., Meehan, M.L., Orletsky, S., & Sattes, B. (1999). Assessing a school staff as a community of professional learners. Washington, D.C: (Office of Educational Research and Improvement)
- Hoy, W. K. & Miskel, C. G. (n.d.) (6th ed.) Educational administration: Theory, Research and Practice. New York: McGraw-Hill, Inc.
- Huffman, J.B. (2003). The role of shared values and vision in creating professional learning communities. NASSP Bulletin 87(637), 21-34.
- Huffman, J., & Hipp, K. A. (2000). Creating communities of learners: The interaction of shared leadership, shared vision, and supportive conditions. Paper presented at the annual meeting of the American educational research association. New Orleans, LA: April 24-28.
- Huffman, J.B., & Jacobson, A.L. (2003). Perceptions of professional learning communities. International Journal of Leadership in Education, 6(3), 239-250.
- Hunt, T. C. (2005). Education reforms: Lessons from history. Phi Delta Kappan 87(1), 84-89.
- Jones, G. R., & George, J. M (2006). Contemporary Management. Boston: McGraw-Hill.
- Joyce, B. (2004). How are professional learning communities created? History has a few messages. Phi Delta Kappan, 86(1), 76-83.

- Kerlinger, F. N., & Lee, H. B. (2000). Foundations of Behavioral Research. California: Harcourt College Publishers.
- King, M. B. & Newmann, F. M. (2000). Will teacher learning advance school goals? Phi Delta Kappan, 81(8), 576-580.
- Kofman, F. & Senge, P. (1995). Communities of Commitment: The heart of learning organizations. In S. Chawla & J. Rensch (Ed.), Learning organizations. (pp. 14-43). Portland, Oregon: Productivity Press.
- Kreitner, R. & Kinicki, A. (2004). Organizational behavior. Boston, Massachusetts: McGraw Hill.
- Lambert, L. (2005). Leadership for lasting reform. Educational Leadership, 62(5), 62-65.
- Leedy, P. D., & Ormrod, J.E. (2005). Practical research. Saddle River, New Jersey: Pearson.
- Leithwood, K. A. (1992). The move toward transformational leadership. Educational Leadership, 49(5), 8-12.
- Leonard, L. J. (1999). Reculturing for collaboration and leadership. Journal of Educational Research 92(4), 237-242.
- Lincoln, S. L., & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills: Sage Publications.
- Louis, K.S., Kruse, S., & Marks, H. (1996). Schoolwide Professional Community. Fred Newmann and Associates (Ed.) Authentic Achievement: Restructuring Schools for Intellectual Quality. San Francisco: Jossey-Bass.
- Marshall, C., & Rossman, G. B (1999). Designing Qualitative Research. Thousand Oaks, CA: Sage Publications.

Marsick, V. J. & Watkins, K. E. (1996). A Framework for the learning organization.

Creating the learning organization, 1, 3-12.

Marzano, R. J., Waters, T., & McNulty, B. A. (2005). School Leadership that Works

Alexandria, Virginia: ASCD.

Mason, S. (2003). Learning from data: The role of professional learning communities.

Paper presented at the Annual meeting of the American Educational Research

Association, Chicago, IL.

Mazurek, K., Winzer, M. A., & Majorek, C. (2000). Education in a global society.

Boston, MA: Allyn and Bacon.

McBrien, J. L. & Brandt, R. S. (1997). The language of learning. Alexandria, Va:

Association for Supervision and Curriculum Development.

Meehan, M., Wiersma, W., Cowley, K., Craig, J., Orletsky, S., Childers, R. (2002).

School faculty as a high-performing learning community. Normative data from

132 schools. Paper presented at the annual CREATE National Evaluation Institute,

Boise, ID.

Merriam, S. B. (1991). Case study research in education. A qualitative approach. San

Francisco, CA: Jossey-Bass Publishers.

Merriam, S. B. (1998). Qualitative research and case study applications in education.

San Francisco, CA: Jossey-Bass Publishers.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis. (2nd ed.) Thousand

Oaks, CA: Sage Publications, Inc.

Moore, S. & Shaw, P. (2000). The professional learning needs and perceptions of

secondary school teachers: Implications for professional learning community.

New Orleans, LA: Paper presented at the annual meeting of the American Educational Research Association.

Morrissey, M. S. (2000). Professional learning communities: An ongoing exploration.

Austin, Texas: Southwest Educational Development Laboratory.

Moustakas, C. (1994). Phenomenological Research Study Methods. Thousand Oaks, CA:

Sage Publications.

Newcombe, A. (2003). Peter Senge on organizational learning. School Administrator,

60(5), 20-25.

Newmann, F. M., & Wehlage, G. G. (1995). Successful school restructuring: A report to

the public and educators. Madison, WI: Center on Organization and Restructuring

Schools. (ERIC Document Reproduction Service No. ED 387 925)

Newman, M. (2006) Using photographs to study community: Content and context in

Search of Bronzeville, 1941. Retrieved on May 17, 2006 at

<http://aam.nl.edu/Newmanarticlerev.pdf>

Noguera, P. A. (2004). Transforming high schools. Educational Leadership 61(8), 26-31.

Oakes, J.; Quartz, K H.; Ryan, S.: & Lipton, M. (2000). Becoming good American

schools. Phi Delta Kappan, 81(8), 568-575.

O'Callaghan Jr., W. G. (2004). Think like Peter Senge. School Administrator 61(10).

Olivier, Cowman & Pankake (2000). Cultural characteristics of supportive conditions and

Shared personal practice. A paper presented at the AERA Annual Conference

April 24-28. New Orleans, LA.

O'Neil, J. (1995). On schools as learning organizations: A conversation with Peter

Senge. Educational Leadership. 52(7), 20-23.

- Owens, R.G. (2004). Organizational behavior in education: Adaptive leadership and school reform (8th ed.) Boston, Massachusetts: Pearson.
- Patterson, W. (2000). Grounding school culture. Education Digest, 65(9), 4-8.
- Patton, M. Q. (1990). Qualitative evaluation and research methods (2nd ed.). Newbury, CA: Sage Publications.
- Peterson, K. D. & Deal, T. E. (1998). How leaders influence the culture of schools. Educational Leadership
- Phillips, J. (2003). Powerful learning: creating learning communities in urban school reform. Journal of Curriculum and Supervision, 18(3), 240-258.
- Plucker, J.A. (1998). The relationship between school climate conditions and student aspirations. Journal of educational research, 91(4). 240-246.
- Pool, H. (1997).). Deming's philosophy: Implications for education. In M. D. Richardson, Blackburn, R. L., Ruhl-Smith, C., & Haynes, J. A. The pursuit of Continuous improvements in educational organizations. (pp.75-91). New York: University Press of America, Inc.
- Ravitch, D. (2000). Left Back A Century of Battles Over School Reform. New York, New York: Simon & Schuster.
- Raywid, M. A. (1993). Finding time for collaboration. Educational Leadership, 51(1), 30-34.
- Raywid, M. A. (2002). Accountability: What's worth measuring? Phi Delta Kappan
- Reed, H. A. (2001). Ukrop's as a learning organization: Senge's five disciplines realized in a medium-sized company. (Doctoral dissertation, University of Virginia, 2001). Dissertation Abstracts.

- Reitzig, U. C., & Burrello, L. C. (1995). How principals can build self-renewing schools. *Educational Leadership*, 52(7), 48-50.
- Richardson, V. L. (2003). The relationship between principal leadership styles and the maturity of schools as professional learning communities (Doctoral dissertation, The George Washington University, 2003). Dissertation Abstracts International.
- Richardson, M D.; Flanigan, J. L.; & Lane, K. E. (1997). Dewey vs. Deming: Implications for educational administrators. In M. D. Richardson, Blackbourn, R. L., Ruhl-Smith, C., & Haynes, J. A. The pursuit of continuous improvement in educational organizations. (pp.93-113). New York: University Press of America, Inc.
- Ruhl-Smith, C. (1997). Total quality management and the classroom teacher. In M. D. Richardson, Blackbourn, R. L., Ruhl-Smith, C., & Haynes, J. A. The pursuit of Continuous improvements in educational organizations. (pp.221-236). New York: University Press of America, Inc.
- Royal, M.A., & Rossi, R.J. (1999). Predictors of within-school differences in teachers' sense of community. Journal of Educational Research, 92(5), 259-265.
- Schenk, R. (1993). Deming's quality: Our last but best hope. Educational Leadership, 93(5), 64-66.
- Schmoker, M. (2004). Learning communities at the crossroads: Toward the best schools we've ever had. Phi Delta Kappan, 86(1) 84-88.
- Schmoker, M. (2004). Tipping point: From freckles reform to substantive instructional improvement. Phi Delta Kappan, 85(6), 424-431.

- Scribner, J. P., Cockrell, K. S., Cockrell, D. H., & Valentine, J. W. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school improvement process. Educational Administration Quarterly, 35(1), 130-160.
- Senge, P. M. (1990). The fifth discipline: The art and practice of the learning organization. New York, New York: Currency Doubleday.
- Senge, P., & Lannon-Kim (1991). Facilitative leadership: The imperative for change. Retrieved 1/25/2006 from <http://www.sedl.org/change/facilitate/leadership.html>
- Senge, P. M., Cambron-McCabe, N., Lucas, T., Smith, B., & Kleiner, A. (2000). Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education. New York, New York: Doubleday.
- Senge, P. M., Kleiner, A., Roberts, C., Ross, R. B., & Smith, B. J. (1994). The fifth discipline fieldbook: Strategies and tools for building a learning organization. New York, New York: Doubleday.
- Sergiovanni, T. J. (1994). Building community in schools. San Francisco, CA: Jossey-Bass.
- Sergiovanni, T. J. (2004, September). Balance individual autonomy and collaboration to center on students. Principal Leadership, 5, 48-52.
- Sergiovanni, T. J. (2004). Building a community of hope. Educational Leadership, 61
- Shirley, D. (1997). Total quality management and education: "And if you can't come, send nobody. In M. D. Richardson, Blackburn, R. L., Ruhl-Smith, C., & Haynes, J. A. The Pursuit of Continuous Improvement in Educational Organizations. (pp.35-54). New York: University Press of America, Inc.

Sirotnik, & Kimball, (1999). Standards for standards-based accountability systems.

Phi Delta Kappan, 81(3), 209-214.

. Slavin, R. E. (2001). Putting the school back in school reform. Educational Leadership, 58(4), 22-27.

Sparks, D. (2004). The looming danger of a two-tiered professional development system. Phi Delta Kappan, 86(4), 304-306.

Stake, R. E. (1995). The art of case study research. Thousand Oaks, CA: Sage.

Stake, R. E. (2003). Case Studies. In N.K. Denzin & Y.S. Lincoln (Ed.) Strategies of Qualitative Inquiry (pp. 134-164). Thousand Oaks, CA: Sage Publications.

Stein, M. K. (1998). High performance learning communities District 2. Washington, D.C.: Office of Educational Research and Improvement.

Strahan, D. (2003). Promoting a collaborative professional culture in three elementary schools that have beaten the odds. The Elementary School Journal, 104(2), 127-145.

Thompson, S.C., Gregg, L., & Niska, J.M. (2004). Professional learning communities, leadership and student learning. Research in Middle Level Education Online, 27(3), 35-55.

Thornton, B., Peltier, G., & Perreault, G. (2004). Systems thinking: A skill to improve student achievement. The Clearing House, 77 (5), 222-227.

Tobergte, D.R., & Curtis, S. (2002). There is a crisis! And failure is not an option. Education, 122(4), 770-776.

Valesky, T. & Markus, F. (1997). Using TQM as a philosophical and organizational framework to achieve effective schools. In M. D. Richardson, Blackburn, R. L., Ruhl-Smith, C., & Haynes, J. A. The Pursuit of Continuous Improvement in

Educational Organizations. (pp.35-54). New York: University Press of America, Inc.

- Watkins, K. E., & Marsick, V. J. (1999). Sculpting the learning community: New forms of working and organizing. NASSP Bulletin, 83(604), 78-87.
- Wheelan, S. A., & Kesselring, J. (2005). Link between faculty group development and elementary student performance on standardized tests. Journal of Educational Research, 98(6). 323-330.
- Willie, C. V., & Willie, S. S. (2005). Black, white, and brown: The transformation of public education in America. Teachers College Record, 107(3), 475-495.
- Wyckoff, S. L. (1998). Schools as learning organizations: A study of instrument development. (Doctoral dissertation, Wichita State University, 1998). Dissertation Abstracts International.
- Yin, R. K. (1989). Case study research design and methods. Newbury Park: Sage Publications.
- Yukl, G. (1994). Leadership in organizations. Englewood Cliffs, NJ: Prentice Hall.
- Zederayko, G. E., & Ward, K. (1999). Schools as learning organizations: How can the work of teachers be both teaching and learning? NASSP Bulletin, 83(604). 35-45.

APPENDICES

APPENDIX A
PROTOCOL FOR INTERVIEWS

Protocol for Interviews

Team Learning

1. What is common planning?
2. Who are the people involved in the common planning?
3. Has Morris High School changed during the past year? Tell me what's really changed. Was it beneficial?
4. Who was involved in making these changes?
5. How were they involved?
6. Tell me your perceptions about these changes.

Personal Mastery

7. What are your professional goals?
8. What are your personal goals?
9. Do they coincide?
10. Does this school encourage you to work toward your goals? How does it do that?
11. What barriers prevent you from accomplishing your goals?
12. What do the administrators do to help you accomplish your goals?
13. If you perceive there are barriers that prevent you from accomplishing your goals, who do you go to for help? Why?

Systems Thinking

14. Are you one of the change agents around here?
15. Who's the best problem solver at this school?

Shared Vision

16. How do you see the big picture around here?
17. What are you trying to accomplish?
18. Do you think you have the right idea?
19. How does this big picture influence what you do everyday?
20. How do you use the big picture to help kids?
21. Did you have an opportunity to share in the development of the big picture? How were you involved?
22. If you've got an idea, how do you communicate it?
23. If the administrators have an idea, how do they communicate it to you?

Mental Models

24. How do you assess your own teaching?
25. How do you assess your own thinking?
26. How do you reflect on, examine, or think about your place in this school?
27. Do you have opportunities to share with others?
28. What goes on in the school each day?
29. How would you define the word communication? What does that tell you about how you communicate?
30. Describe what common planning means to you. You say that things have changed around here, why do you keep coming back to work here?

APPENDIX B
IRB APPROVAL LETTER

Georgia Southern University Office of Research Services & Sponsored Programs Institutional Review Board (IRB)		
Phone: 912-681-5465		Administrative Annex P.O. Box 8005 Statesboro, GA 30460
Fax: 912-681-0719	Ovrsight@GeorgiaSouthern.edu	

To: Margaret Z. Stockard
3618 Bermuda Circle
Augusta, GA 30909

CC: Dr. Barbara Mallory, Faculty Advisor
P. O. Box 8131

From: Office of Research Services and Sponsored Programs
Administrative Support Office for Research Oversight Committees
(IACUC/IBC/IRB)

Date: May 1, 2006

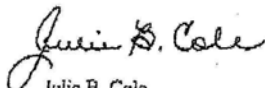
Subject: Status of Application for Approval to Utilize Human Subjects in Research

After a review of your proposed research project numbered: H06182, and titled "A Descriptive Phenomenological Study of Teachers' and Administrators' Perceptions of a Professional Learning Community Utilizing Senge's Five Disciplines of a Learning Organization", it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.

This IRB approval is in effect for one year from the date of this letter. If at the end of that time, there have been no changes to the research protocol, you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, whether or not it is believed to be related to the study, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator prior to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,



Julie B. Cole
Director of Research Services and Sponsored Programs

APPENDIX C
COVER LETTER TO PARTICIPANTS

April 24, 2006,

Dear Participants:

This is a research study for a dissertation that will employ phenomenological methodology. Information regarding your school's efforts to change into a learning organization (common planning) and improve student performance will be gathered and the findings will be reported.

You are invited to participate in this study because you are a staff member of the school that is being studied.

Part of the research will be conducted by means of interviews, observations, document and artifact collection, photographs, and a survey. The final result of the research is expected to be part of a dissertation that will be submitted for a Doctor of Education at Georgia Southern University.

All identities will be kept confidential. The information gathered will be stored at the researcher's home in a secured box. Only the researcher and university advisors will have access to the information gathered. The researcher cannot guarantee anonymity, but can ensure confidentiality.

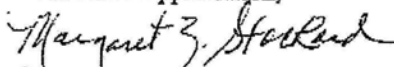
Your participation is voluntary and you are free to withdraw your consent and discontinue participation in the study at any time.

Participating in the interview and/or completing the survey constitute your consent to participate.

If you have any questions, please feel free to contact Margaret Stockard, researcher, at 706-738-2666, or Dr. B. Mallory, Department of Leadership, Technology, and Human Development at Georgia Southern University, Statesboro, Georgia, (912) 871-1428.

Thank you in advance for your participation. Completion of this survey should take no more than thirty minutes, and completion of the interview should take no more than one hour.

With much appreciation,


Margaret Z. Stockard