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A Case Study: The Influence of the Pennsylvania High School Coaching Initiative on the Change of Teachers' Instructional Practices and Student Achievement

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A CASE STUDY: THE INFLUENCE OF THE PENNSYLVANIA HIGH SCHOOL

COACHING INITIATIVE ON THE CHANGE OF TEACHERS' INSTRUCTIONAL

PRACTICES AND STUDENT ACHIEVEMENT

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

Thomas B. Otto

Indiana University of Pennsylvania

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Indiana University of Pennsylvania
The School of Graduate Studies and Research
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Title: A Case Study: The Influence of the Pennsylvania High School Coaching Initiative
        on the Change of Teachers' Instructional Practices and Student Achievement

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The failure of the United States of America to acknowledge and act on the cumulative nature of learning has caused us to fall behind other nations (Hirsch, 1996). These concerns have led to governmental intervention to improve our nation's school systems. The Pennsylvania High School Coaching Initiative (PAHSCI) was created by the Commonwealth with support from the Annenberg Foundation, Foundations, Inc., Penn Literacy Network, Philadelphia Foundations, and Research for Action, to improve student achievement on the high school level.

The purpose of this qualitative case study was to examine one high school's involvement in the PAHSCI. This study sought to understand the factors that contributed to or challenged the conditions for the PAHSCI to be a positive and sustainable high school reform initiative and to determine the relationship between instructional coaching, teacher change, and student achievement. The high school selected for this study was the one high school in the Pennsylvania High School Coaching Initiative (PAHSCI) that most improved the grade eleven student PSSA scores in mathematics and reading from the years 2005 to 2007. The beliefs and comments of the administrators, instructional coaches, and teachers provided in-depth knowledge to determine "why" this high school was successful, "how" the PAHSCI may have influenced the participants at the high school, and "what" occurred to increase the PSSA scores.

This research study concluded that the Pennsylvania High School Coaching Initiative, utilizing a model of change, was successful in influencing the change of teachers' instructional practices. The results at this one high school indicated that the use of instructional coaching as on-site professional development specialists should continue to be examined and refined. There was significant evidence that the goal of increasing literacy throughout the environment was successful. This study concluded the research gap still exists when attempting to identify the impact or influence of instructional coaches on improving student achievement.

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CHAPTER I

THE PROBLEM

Introduction

"Change will not occur until the need to change is greater than the resistance to change" (William Daggett, 2007 Model Schools Conference). The pressure on high schools in the United States of America to improve to meet the needs of students and society is increasing. A national report on the achievement of high school students in grade twelve, (NAEP-National Assessment of Educational Progress), provides evidence of this growing concern. The overall 2005 NAEP reading score of high school seniors was lower than in 1992 but not significantly different than 2002. The NAEP mathematics assessment, which was based on a new framework that did not enable a comparison to previous years, stated that twenty-three percent of high school seniors scored at or below the proficient level (Grigg, Donahue & Dion, 2007). Hirsch (1996) indicated that the failure of the United States of America to acknowledge and act on the cumulative nature of learning has caused us to fall behind other nations. These concerns have led to governmental intervention to improve our nation's school systems.

The No Child Left Behind (NCLB) Act of 2001 requires that by the year 2014, one hundred percent of all children will be able to read, write and compute on a grade level that will enable them to pass their state assessment of skills examination. The current system in Pennsylvania uses the Pennsylvania System of School Assessment (PSSA) test to measure the reading and mathematical skills of students toward achieving the NCLB goals.

The information posted on the Commonwealth of Pennsylvania's web site states "Pennsylvania is well on its way to meeting the requirements of the No Child Left Behind (NCLB) Act of 2001. Through the hard work of students, teachers, administrators and other educators throughout the Commonwealth, student performance continued to be strong in 2005-06. Pennsylvania's students maintained their strong performance from last year, which is a great indicator that Pennsylvania is on the right path to having 100 percent of its students score proficient or advanced in reading and math by 2014. This is a marathon - not a sprint - in which every student must emerge as a winner. The finish line is 2014 when every student must cross it at 100% proficiency in math and reading." (Found at http:www.pde.state.pa.us).

The achievement scores of eleventh grade students scoring in the proficient range on the Pennsylvania System of School Assessment (PSSA) have improved across the Commonwealth. The Pennsylvania Department of Education website lists the beginning proficient scores in 2002 for grade eleven high school students on the PSSA for mathematics was 49.6% and increased to 52% in 2006. In reading the proficient scores increased from 59% in 2002 to 65.1% in 2006. Governor Rendell recognized that improvement was occurring but more needed to be done. He launched a program called Project 720 to further improve the quality of instruction with the hope of increasing the achievement scores of students. Project 720 is a Pennsylvania Department of Education initiative to improve the education of high school students in the Commonwealth.

One component of Project 720 is designed to improve the quality of instruction for students. Governor Edward Rendell, with funding provided by the Annenberg Foundation, developed a high school reform initiative termed the Pennsylvania High

School Coaching Initiative (PAHSCI). This initiative is a crucial component of Pennsylvania's plan, Leading for Learning, to improve student performance. The Annenberg Foundation contributed thirty-one million dollars to place one math coach and one literacy coach for every six hundred students in selected high schools. Twenty-six high schools across the state have been selected to participate in this three year program. The PAHSCI program began in August 2005 and continued for the 2006/07 and 2007/08 school years. The goals of the Pennsylvania High School Coaching Initiative are to improve student performance at the participating high school, build capacity throughout the Commonwealth for the expansion of the model, and to generate a research base that will inform the development of the coaching model and support its refinement and expansion.

This dissertation is a case study of one high school's involvement in the Pennsylvania High School Coaching Initiative (PAHSCI). The high school that was selected for this study was the one high school in the PAHSCI that most improved the grade eleven student PSSA scores in mathematics and reading from the years 2005 to 2007. This study was based on interviews of teachers, instructional coaches, and administrators at one of the twenty-six high schools that participated in this high school reform initiative. The reform focused on using instructional coaches in literacy and mathematics as on site professional development specialists.

This first chapter presents the background of the study, specifies the need for the study, presents a conceptual framework design, describes the purpose of the study, states the research questions, and presents an overview of the research design used. The chapter

concludes by noting the limitations and delimitations of the study and defining some special terms used.

Need for the Study

The concepts of high school reform, change of teacher instructional practice and improvement of student achievement are not new. Emerging research indicates a potential correlation between instructional coaching and student achievement (Nowecien, 2005; Nuefeld & Roper, 2003; Schen, M., Roa, S. & Dobles, R., 2005; Simons, 2006; Knight, 2004). "The Pennsylvania High School Coaching Initiative seeks to improve teaching and therefore to improve student learning. This can be accomplished through the use of instructional coaches working with teachers across subjects to increase student content knowledge, ability to think critically, and ability to communicate well" (Brown, Reuman-Moore, Hugh, de Plessis & Christman, 2006, p. 5).

Several research studies found that when professional development is designed to change instructional practice teachers believe it is most beneficial when this professional development occurs while they are in their classrooms. Strategies that were most beneficial to teachers were team meetings, peer coaching, and clinical supervision. Teachers reported that the most significant change in their use of instructional strategies occurred during one of these three forms of professional development. Teacher instructional practices were not solely researched in these studies. In addition, the content of information being taught to students and the methods of operation used by high schools are also being questioned and analyzed (Schlecty, 1990; Daggett, 2007; Wurtzel, 2006, Schen, Rao & Dobles, 2005).

There has been an evolution in high school organizations and structures.

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Schlechty (1990) in *Schools for the 21st Century; Leadership Imperatives for Educational Reform* warned of an environment where "the emphasis on machinery and muscle will shift to an emphasis on the management and use of knowledge" (p. 35). He further stated that "knowledge work is giving and receiving information and then doing something with it to make it your own" (p. 77). Coggins (2004) conducted a study to explore the significance that coaching has on multi-level reform within a school system. This study focused on following the developing roles of internal and external coaches. Coggins shadowed coaches to understand the relationships that developed when teachers, coaches and administrators collaborated on ways to develop and use new knowledge. In this study the focus was on the advantages and challenges in the Bay Area School Reform Strategy examining the use of instructional structures, district culture and the professional community of the coach as they impacted the ability of the coach to work effectively.

Researchers (Coggins, 2004; Edwards & Newton, 1994; Eger, 2006; Lee, 2006; Simons, 2006) have studied coaching as a reform strategy and found that when all educators in a school district share a unified focus on teaching and learning issues that are fostered through coaching there is promise that school improvement will occur. Resnick & Glennan (2002) proposed that coaching is beneficial for use as a whole school reform model. In addition, Carr-Lambert (2004) conducted a study to identify the factors contributing to the sustainability of a public school district takeover by the state of West Virginia. This evidence of emerging research indicates there is an increasing interest in the use of instructional coaching to reform high schools. The United States has previously undergone high school reform efforts based on the societal or business community needs at that time.

Schlechty (1990) offered an analysis of three reform structures that have been utilized in schools in the United States. The first vision of school reform identified was the tribal school. The tribal school was set up with Anglo-Saxon religious beliefs to induct students into the cultural system. An industrial model where schools were like factories that sorted and separated students like raw material was the second vision used to educate children. Students in schools which used this model were sent into different systems based on their abilities and aptitudes due to different educational needs. At this time, when students were educated in the factory model, the scientific management theory of instruction held that there was a best way to teach all students. Students were educated in much the same way that managers of factories treated employees. A major component of the factory system of school reform was to socialize students so that they could leave school and assume their proper role in society. The last vision of schools was like that of a hospital. In this model, schools would solve all of the problems of students that were forced on them by the previous industrialization model of education. The PAHSCI has the philosophy described by Schlechty "that teachers and administrators need to think differently about their work and work differently because of what they come to think" (p. 107). This new reform initiative in high schools is an emphasis on students being able to work with and produce knowledge. The PAHSCI is an example of a new type of high school reform that is different from the three models previously described by Schlechty. The need for high school reform has been embraced by many. Among those who see a need for reform are high school principals who are at the point of contact in leading reform initiatives.

In a report by the National Association of Secondary School Principals, *Breaking Ranks II: Strategies for Leading High School Reform* (2004), the question of why we need high school reform is addressed. "The answer has two components-mandate and enticement" (p. XIV). Mandate is used to reference state and federal legislation to improve achievement for all students. Enticement is used to explain that all educators got into the profession "to make a difference in the lives of individual students by helping them acquire a love of learning" (p. XV). The introduction to *Breaking Ranks II* concludes with the phrase, "Adversity spawns discussion, discussion informs ideas, ideas **may** lead to change, the changing of an American Institution" (p. XV). This manual for administrators refers to developing a culture of continuous improvement and has three core recommendations. The first recommendation is to have collaborative leadership within a professional learning community. The next recommendation is to address curriculum, instruction, and assessment. The last recommendation is to personalize your school environment. The NASSP has chosen to embrace the goals of NCLB. The goals of NCLB are addressed by PAHSCI and are relevant to the success of students who graduate and further their education or become eligible for the work force.

Corporate leaders continually state that they need employees who know how to learn. As early as 1990, Schlechty described that the challenge never faced before by public education in America is that children must know how to read, write, cipher, and know how to think (p. 40). Schlechty agreed with the reason for the PAHSCI and understands that the success of this initiative is not an easy task. He stated "restructuring requires that all who participate in the life of the school unlearn many things that have been taught in the past and learn new skills and abilities. It requires leaders to be

followers and followers to learn to be leaders. If schools are to be restructured so that each child will be successful at working on and with knowledge, and if the sacred purpose of schools is to be the production of knowledge work at which students are successful, then all who work in and around school must subject themselves to the common discipline these goals and values demand"(p. 11). Schlechty agreed with the goals of the PAHSCI by saying, "the purpose of education is to have students that continue to grow and develop, apply what they learn, and share what they learn with others" (p. 11). He addressed what is still occurring too often in high schools; we currently measure the student's performance on school work when we should focus our efforts on evaluating the quality of the school work that we give students. "For example, teachers and principals need to develop measures of the quality of schoolwork, just as educators now develop measures of the quality of student performance on schoolwork" (p. 120).

Neufeld and Roper (2003); and Schen, Rao, and Dobles (2005) have identified the need to study coaching and its impact on increasing the achievement of students. Schen, Rao, and Dobles (2005) "acknowledged that coaching encourages collaboration, cultural change, data analysis to inform practice, promotes learning and reciprocal accountability, and supports collective interconnected leadership" (p. 2). Neufeld, et al (2003) proposed that measuring the quality and impact of a coach's work will be difficult. "Without some links between coaching, teacher learning, and student achievement, it is difficult to justify the expense of coaching, especially in times of tight budgets when districts may be tempted to return to older, large group forms of professional development" (p. 24). However, the time is now to examine the impact that coaching has on a high school.

There are reasons to assume that the PAHSCI is a worthwhile method to reform high schools in the Commonwealth. Coaching, as professional development, leads to teachers using the content of professional development sessions 85% of the time as compared to the 10% use of content in conventional professional development sessions (Showers, Murphy, & Joyce, 1996). Researcher Jim Knight, from the University of Kansas Center for Research on Learning, indicated that with classroom coaching implementation rates by teachers of newly learned content is 85% to 90%. The PAHSCI meets the criteria of incorporating the three previous high school reform models described by Schlechty (tribal, factory, and hospital) with the new demands to have students engaged and involved with creating and using knowledge. In addition, the PAHSCI Theory of Change has attempted to incorporate change theory and leadership theory with initiatives to promote sustainability for teacher and organizational improvement. The conceptual framework of the study was formed by incorporating the PAHSCI Theory of Change with the findings of leadership, change, and organizational learning theories, along with the characteristics discovered in research on sustainability.

Authors (Bennis, 1989; Collins, 2001; Danielson, 2006; Fullan, 2005; Gardner, 1995; Heifetz, 1994; Kotter, 2002; Northouse, 2004; Perkins, 2003; Schwahn & Spady, 1998; Senge, 1999; Sergiovanni, 1992) have studied leadership and organizational learning. Qualities or indicators that are needed for an initiative or change to be sustained are being identified. Additionally, factors that inhibit a successful change initiative and its sustainability are being identified and categorized (Carr-Lambert, 2004; Senge, 1999; Fullan, 2005; Danielson, 2006). These qualities or characteristics form a conceptual framework and various lenses to view the PAHSCI. The need for this study is to

determine what impact the PAHSCI may have had on increasing student achievement and what factors contributed to, or challenged, the sustainability of this high school reform initiative.

Conceptual Framework

This study is grounded in the theories of change, leadership, and organizational learning to find common points of alignment. In addition, research was conducted to identify the characteristics of sustainability of reform efforts. These theories are elaborated upon in the literature review found in chapter two. The characteristics of sustainability of reform efforts along with the common points of alignment discovered in the theories of change, leadership, and organizational learning offer a framework to conduct this study. The recurring importance of communication, collaboration, leadership empowerment, and vision necessary to formulate and complete goals are points of alignment that offer lenses to view and categorize themes and topics that are discovered during this study. Characteristics of sustainability of business reform initiatives are beginning to emerge in school reform. These characteristics center on the need for leadership, the ability to reduce fear and anxiety during the change, developing a method to measure and assess the progress of the initiative, and (once again) the need to foster communication and collaboration (Senge, 1999; Fullan, 2005). Information that is discovered during this study will be deposited into one of these theoretical baskets to draw conclusions about the impact of the PAHSCI.

Purpose for the Study

The Commonwealth of Pennsylvania is to be applauded for its commitment to the success of all students. It is recognized that policymakers expect an affirmation of

success and are attentive to quantitative results. The question remains as to whether the PAHSCI created by the Commonwealth to improve student achievement on the high school level was successful and whether that success can be sustained. The "how" and "what" regarding the influence of the PAHSCI on a high achieving high school needs to be known. The purpose of this study is to understand the factors that contributed to or challenged the conditions for the PAHSCI to be a positive and sustainable high school reform initiative and to determine the relationship between instructional coaching, teacher change, and student achievement.

The research indicates that the platform to guide this study holds that change is related to a leadership commitment that fosters progressive communication and collaboration and has specific leadership goals needed to achieve change and sustainability. If there is an increase in the PSSA achievement scores of high schools in the PAHSCI it is difficult to quantify that the PAHSCI was the catalyst that increased the scores. An enormously large scientific study using control groups would have to be developed. The PAHSCI is already underway. Therefore it is not practical to halt or alter the momentum currently established. What then can be done to determine if the PAHSCI is meeting the demands needed to reform Pennsylvania high schools? This qualitative study contributes a rich, comprehensive, and descriptive account of one successful high school's experience in the PAHSCI. The experiences of the teachers, coaches, and administrators as they implemented this initiative can assist schools in the future as they try to increase the achievement scores of high school students to meet the requirements of the No Child Left Behind Act of 2001. The focus on sustainability will aid the Commonwealth when teachers, coaches, and administrators identify the contributing and

challenging factors to sustaining change within their organization. The examination of research literature indicated very little regarding sustainability of reform initiatives at the high school level.

The literature review and exploration of the methodology needed to conduct this research study discovered an additional reason to conduct this study. While an examination of the PSSA scores is a quantifiable reason to gain entry to this high school, it is of great interest to the educational community to seek information and identify patterns or themes that may lead to other ways to assess student success or achievement. PSSA scores are given a great deal of credibility regarding the success of student achievement within a high school. Schlechty (1990) and Daggett (2007) advocate the need to assess the rigor and relevance of the school work that students are asked to accomplish. The rigor and relevance of school work is difficult to measure by a standardized test. It is possible that methods to accurately assess student learning, as well as school and teacher success relative to initiating that learning will result from the study of this high school.

Research Questions

The primary research question to guide this study is: How did the Pennsylvania High School Coaching Initiative influence the change of teachers' instructional practices and student achievement within the organizational structure of a high achieving high school?

Additional research questions to guide the study are:

1. What factors contributed to the implementation of the PAHSCI Theory of Change?

2. What factors challenged the implementation of the PAHSCI Theory of Change?

3. What evidence exists in the narrative analysis that identifies the contributing and challenging factors to the sustainability of the PAHSCI?

4. What characteristics are displayed at this improving high school that demonstrates whether the PAHSCI is a sustainable high school reform effort that can serve as a model for other high schools in the Commonwealth?

5. What are the characteristics of the increased quality of work that students produced?

Research Design

The literature review examined the theories of change, leadership, and organizational learning to find common points of alignment. In addition, research was conducted to identify the characteristics of sustainability of reform efforts. The characteristics of sustainability of reform efforts along with the common points of alignment discovered in the theories of change, leadership, and organizational learning offer a framework to conduct this study. A qualitative design using a case study was then conducted of the high school in the PAHSCI that most improved their PSSA achievement scores. These scores were relative to students scoring proficient in mathematics and reading from the 2005 to the 2007 school year. The PAHSCI Theory of Change, points of alignment identified in the theories of leadership, change, and organizational learning, and characteristics of sustainable reform served as the theoretical model to construct interview questions for instructional coaches, teachers, and administrators. A narrative analysis of the results of these interviews was then conducted to look for themes that emerged and were congruent with the research questions. The results were then used to identify the factors that challenged or contributed to the increase in reading and mathematical achievement and the sustainability of the PAHSCI in this particular high

school. The information learned from the success of this high school relative to the increased student achievement and the identification of the characteristics needed to overcome the challenging factors and that advanced the contributing factors related to sustainability can serve as a model to increase student success in the Commonwealth.

Limitations

A case study is limited to generalizing the findings beyond the case that is studied. Patterns and themes can be identified relevant to the in-depth case study to provide information that can contribute to the understanding of the events that occurred in the case study to increase the level of generalization. The goals of this research are to provide an accurate description and identification of the themes and patterns that emerged related to increasing student achievement at one high school that participated in the PAHSCI and to the sustainability of the PAHSCI.

Delimitations

This study will be confined to a case study of the high school in the Pennsylvania High School Coaching Initiative (PAHSCI) that most improved its PSSA achievement scores in Mathematics and Reading. Of particular interest will be the ways that teachers, instructional coaches and administrators identified the contributing and challenging factors to increasing student achievement and to sustaining the PAHSCI.

Definitions of Key Terms

Annenberg Foundation-The Annenberg Foundation provides support for projects within its grant-making interest areas of: Education and Youth Development; Arts and Culture; Civic, Community and the Environment; and Health and Human Services. The

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Foundation only considers organizations defined as a public charity and tax exempt under

Section 501(c) (3) of the Internal Revenue Code (www.annenbergfoundation.org.).

Adequate Yearly Progress (AYP)-The standard set achievement scores that schools must

obtain, on a yearly basis, in order to demonstrate achievement toward accomplishing the

goals of the No Child Left Behind Act of 2001.

Capacity Building-involves developing the collective ability, dispositions, skills,

knowledge, motivation, and resources to act together to bring about positive change

(Fullan, 2005).

Change-to make or become different in some way, alters.

Collaboration-When people strive together toward the same outcome in ways that

directly share work, thinking, and responsibility (Perkins, 2003)

Culture- the things that people agree are true and right (Fullan, 2005).

 Instructional Coaching-teachers who work with other teachers in their classrooms to

solve problems, model lessons, conduct structured classrooms visits, and provide

professional development services to teachers within the school setting (Brown et al.,

2006, *Promising in-roads; Year one report of the Pennsylvania high school coaching

initiative*).

Leadership-leaders initiate improvements in their milieu or organization and get results.

By enlisting the support of others and sticking to their goal, they make something better

and different happen (Schwahn & Spady, 1998).

Organizational Learning-where all the people involved in an organization continually

enhance and expand their awareness and capabilities based on the five disciplines of

personal mastery, shared vision, mental models, team learning, and systems thinking (Senge, 1999).

No Child Left Behind Act of 2001-a federal law passed which states that all students will be proficient in reading and mathematical skills as measured by each state by the year 2014.

Pennsylvania Learning Network (PLN)-a research based framework that offers practical strategies for establishing literacy rich classrooms across all subject areas.

Philadelphia Foundation- a fiscal agent organization experienced with managing large grant amounts. It oversees the distribution of funds and all financial reports.

Research for Action (RFA) - an organization experienced in connecting evaluation research to the refinement of reform initiatives. RFA is evaluating the PAHSCI and providing ongoing feedback to the partners so that mid-course corrections can be made to enhance the effectiveness of the reform as it unfolds (Brown et al., 2006, *Promising in roads; Year one report of the Pennsylvania high school coaching initiative*).

Sustainability-the capacity of a system to engage in the complexities of continuous improvement consistent with the deep values of human purpose (Fullan, 2005).

Summary

This chapter states the purpose for the proposed research and the reason for the study. The significance of the research topic is explored in the terms of the importance of increasing the achievement of high school students and the effort of Pennsylvania to meet that challenge. Additionally, there is a perceived need to reform the educational experiences offered within high schools to meet the demands of a changing workforce. There is a lack of research regarding the sustainability of high school reform initiatives.

Terms are defined and the limitations and delimitations are identified. The primary

research question is stated along with subordinate questions that will explore the

Pennsylvania High School Coaching Initiative (PAHSCI) and its sustainability.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

In order to study the influence of the Pennsylvania High School Coaching

Initiative (PAHSCI) and its sustainability it is important to review the literature relative

to literacy coaching as a professional development model, organizational learning theory,

leadership theory relative to sustainability, and change theory. Common characteristics

emerge from these theories to guide this study. The common characteristics are the

importance of communication, collaboration, management of change, along with an

organizational intelligence model and a model that outlines leadership qualities needed to

achieve sustainability; these form the theoretical framework for this study. The PAHSCI

was established as a component of the Pennsylvania Department of Education Project

720 initiative. The number 720 refers to the number of school days a student attends high

school in grades nine through twelve. This reference signifies the amount of time

available to high schools to educate students.

Project 720 is a Pennsylvania Department of Education initiative to improve the

education of high school students in the Commonwealth. Governor Edward Rendell, with

funding provided by the Annenberg Foundation, developed a high school reform

initiative termed the Pennsylvania High School Coaching Initiative. This initiative is a

crucial component of Pennsylvania's plan, Leading for Learning, to improve student

performance. The Annenberg Foundation contributed thirty-one million dollars to place

one math coach and one literacy coach for every six hundred students in selected high

schools. Twenty-six high schools across the state have been selected to participate in this

three year program. The PAHSCI program began in August 2005 and will continue for the 2006/07 and 2007/08 school years. Emerging research indicates there is a strong correlation between instructional coaching and student achievement (Brown et al., 2006). The goals of the Pennsylvania High School Coaching Initiative are to improve student performance at the participating high schools, build capacity throughout the Commonwealth for the expansion of the model and generate a research base that will inform the development of the coaching model and support its refinement and expansion.

The purpose of this study is to understand the factors that contributed to or challenged the conditions for the PAHSCI to be a sustainable high school reform initiative and to determine the relationship between instructional coaching, teacher change, and student achievement. The research indicates that the platform to guide this study holds that change is related to a leadership commitment that fosters progressive communication and collaboration and has specific leadership goals needed to achieve sustainability. The primary research question to guide this study is: How did the Pennsylvania High School Coaching Initiative influence the change of teachers' instructional practices and student achievement within the organizational structure of a high achieving high school?

Additional research questions to guide the study are:

1. What factors contributed to the implementation of the PAHSCI Theory of Change?

2. What factors challenged the implementation of the PAHSCI Theory of Change?

3. What evidence exists in the narrative analysis that identifies the contributing and challenging factors to the sustainability of the PAHSCI?

4. What characteristics are displayed at this improving high school that demonstrates whether the PAHSCI is a sustainable high school reform effort that can serve as a model for other high schools in the Commonwealth?

5. What are the characteristics of the increased quality of work that students produced?

This study will generate information that may contribute to assessing all of these goals. An intrinsic case study of one high achieving high school will contribute to the emerging body of research regarding instructional coaching as a professional development and high school reform catalyst (Coggins, 2004; Lee, 2006; Brown et al., 2006; Simons, 2006). This study will contribute to this body of research to see what relationship there may be between the use of literacy coaches and communication within the high school, collaboration and change of staff development, teacher change of instructional practice and the leadership qualities needed to achieve sustainability of the PAHSCI. The story of this high school's experience with its involvement may provide valuable insights into ways to improve student achievement and develop the coaching model of professional development to be utilized throughout the Commonwealth.

"The Pennsylvania High School Coaching Initiative seeks to improve teaching and therefore to improve student learning. This can be accomplished through the use of instructional coaches working with teachers across subjects to increase student content knowledge, ability to think critically, and ability to communicate well" (Brown, Reuman-Moore, Hugh, de Plessis, & Christman, 2006, p. 5). Dr. Brown, from Research for Action, has proposed the PAHSCI theory of change as a framework to conduct research for the PAHSCI initiative. This researcher suggested that a significant contribution can be made by adding to the PAHSCI Theory of Change the common characteristics that were

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discovered in the theories of organizational learning and change. In addition, recent scholarly work has sought to identify leadership qualities needed to insure sustainability and to identify how organizations become more intelligent (Carr-Lambert, 2004; Fullan, 2005; Perkins, 2003; Senge, Kleiner, Robert, Ross, & Smith, 1999).

<div align="center">The PAHSCI Theory of Change</div>

District and school enabling conditions and partner supports form the base for implementing the PAHSCI. Once these conditions are met, movement to the next step in the model involves the use of instructional coaches as on-site professional development. The desired outcome of literacy rich classrooms involves having teachers skilled in diverse instructional strategies that actively engage students in a literacy rich curriculum. Teachers would also become more skilled in instruction across all content areas. The intended result is to have improved student achievement. (Brown et al., 2006)

Leadership, organizational infrastructure, momentum for change, and knowledge were planned for by the cooperation of several key organizations. The Pennsylvania Department of Education (PDE) assisted with school district selection and participation of the districts that participated in PAHSCI. The Penn Literacy Network (PLN), in coordination with the University of Pennsylvania, provided training and instruction to coaches, teachers, and administrators. Foundations, Inc. provided a knowledge base of leadership principles and school improvement to work with school districts. Research for Action (RFA) assisted in connecting existing and new knowledge to evaluate and correct needed measures during the reform. The Philadelphia Foundation provided knowledge and management as the fiscal agent of this initiative.

First, the Annenberg Foundation addressed the need for leadership for high school principals by hiring newly retired superintendents and principals to mentor high school principals. Leadership mentoring for instructional coaches was addressed by the hiring of highly qualified retired mathematics and English teachers. Each school district then had to write and submit a plan to address the development of a leadership team with-in the district that included the Superintendent or person to act as a point of contact. The Pennsylvania Department of Education created a partnership with the University of Pennsylvania's Penn Literacy Network (PLN) and Foundations, Inc. to develop leadership training programs for principals and instructional coaches.

Next, the organizational infrastructure included the use of PLN courses and the Research for Action design of the PAHSCI Theory of Change as a research and development project. "The PAHSCI model is designed as so that program assessment and reflection can inform ongoing refinements of the initiative" (Brown et al., 2006, p. 7). The PLN courses included teachers and administrators earning college credit from the University of Pennsylvania. School districts networked with each other to share successful ways of implementing coaching in their school.

As school districts networked and collaborated with each other, the momentum for the initiative grew. The momentum was started by a PDE desire to improve the achievement of high school students in struggling school districts. The momentum for change was encouraged "…by the core strategy-coaching-that was gaining attention in a few forward thinking schools and districts across the country" (Brown et al., p. 7).

Brown et al. (2006) explained that the knowledge needed by leaders within each school and district was an on-going process. Knowledge had to be obtained while the

initiative was underway. Knowledge was provided by leadership mentors and attendance at PLN courses. Principals, coaches, and teachers earned college credits from the University of Pennsylvania when they completed a PLN course.

Partner supports were key players in the theory of change and PAHSCI itself. Brown et al., (2006) described the distinctive features of the PAHSCI:

- It is a statewide initiative vs. a district initiative.

- It has a focus on classroom instruction in high schools.

- It has a focus on context using literacy-based practices across the curriculum by literacy and math coaches.

- It is a design to include interventions and necessary conditions to develop effective coaching and improve student achievement.

- It has site based mentoring and coaches and administrators.

- It is a research and development model to be a cycle of documentation, assessment, and refinement.

Professional development included centralized courses for coaches and administrators that focus on instructional strategies designed around four lenses of learning. The four lenses of learning are meaning centered, social, language-based, and human qualities involving reflection. The meaning centered lens of learning means that students are able to find the meaning in material in which they are engaged. Language based learning describes the need for students to be engaged in reading and writing for various purposes. The social lens of learning is important so that all students have the opportunity to share their reactions, ideas, beliefs, and opinions. The human lens of

learning implies that each student will be treated with respect by all persons and have an opportunity to respond and be heard (Penn Literacy Network, 2005).

Mentoring consisted of leadership and content mentors who provide support for coaches and administrators. Responsive problem solving occurred when RFA provided information regarding coaching and school needs. The research information was used to design professional development sessions for additional information needed or requested by coaches and administrators. Problem solving also involved fiscal and budget issues, hiring and staffing, and school factors that needed to be addressed as the initiative moved forward.

District and school enabling conditions and partner supports lead to the development of instructional coaching as on-site professional development. "In this concept, coaches, working with teachers in their classrooms, are able to assess students' needs and classroom dynamics. Based on that assessment the coaches can identify what teachers need to know and what they can do to help the students master challenging academic content" (Brown et al., 2006, p. 16). The coaches' roles are to assist in student assessment and instructional strategy usage, to conduct professional study group sessions, to assist with using and analyzing data and to foster collaboration among teachers. The incorporation of coaching assistance to teachers stemming from enabling conditions and partner supports will transfer into literacy rich classrooms (Brown et al., 2006).

Among these classrooms, a common language regarding diverse instructional strategies was fostered during coach and administrator training. PLN strategies, using the four lenses of instruction, enabled coaches and administrators to help teachers develop lessons filled with literacy techniques designed to actively engage students in learning.

This use of common terminology created an opportunity to improve communication and instruction. The result was a literacy rich curriculum where students were actively engaged in learning due to improved instruction across all content areas.

The desired goal of district and school enabling conditions and partner supports utilizing the instructional coaching model was to foster literacy rich classrooms that would increase the student achievement in these twenty-six high schools. The high school that most increased its PSSA student achievement scores may be able to provide valuable information regarding the PAHSCI Theory of Change.

The PAHSCI Theory of Change

District and School   **Partner Supports**
 Enabling Conditions
-Leadership   -Professional Development
-Organizational Infrastructure   -Mentoring
-Momentum for Change   -Responsive Problem
-Knowledge   Solving

INSTRUCTIONAL COACHING-ON SITE PROFESSIONAL DEVELOPMENT
-Provides sustained support to teachers on literacy-rich curriculum and instruction.
-Facilitates professional development such as study groups.
-Assists with the use and analysis of data.
-Fosters collaboration among teachers.

LITERACY RICH CLASSROOMS
Teachers are skilled in
diverse instructional
strategies.

Literacy-rich curriculum and instruction   Actively engaged
across the content areas.   students.

LEADS TO
INCREASED STUDENT ACHIEVEMENT
(adapted from Brown et al., (2006). *Promising In-roads: Year One Report of the*
Pennsylvania High School Coaching Initiative)

Figure 1. The PAHSCI Theory of Change.

Points of Alignment in Four Theories

A literature review of coaching, change theory, leadership theory, and a model of organizational intelligence found two recurring themes. The key for leaders to manage change involves a mastery of communication and collaboration. When leaders foster an environment where communication and collaboration are conducted in a progressive manner in all situations, including conflict, the organization becomes more intelligent. If the PAHSCI has levels of progressive communication and collaboration thoughout its theory of change it can be suggested that the reform initiative will be successful in increasing student achievement. It may also be able to be sustained as a major reform initiative. The literature review sought to identify the factors that demonstrated sustainability. Knowledge that will help us to answer these questions is expanding all around us. Leaders need to accomplish the management of change while organizations themselves are adjusting to the speed of change in the world. The two major points of alignment in the theories of organizational learning, leadership, change, coaching, and an organizational intelligence model are progressive communication and collaboration. These two major points are illustrated in the chart below. In addition, empowerment of those involved in the change effort is another significant factor and is significantly related to leadership within an organization. Table 1 illustrates the primary points of alignment discovered during the literature review on organizational learning and intelligence, coaching as professional development, and leadership and change theories. The italicized words illustrate the common characteristics that consistently present themselves in the four theories. The additional terms under each heading are significant discoveries within each respective theory.

Table 1. *Points of Alignment in Four Theories*

Organizational Learning/Intelligence Theory	**Leadership Theory**	**Change Theory**	**Coaching Theory**
Conversations	*Communication*	*Communicate*	Increase Student Learning
Collaboration	*Empowerment*	*Empower Action*	*Collaboration*
Feedback	Innovation	Create Short Term Wins	Build a Community of Learners
Managing Conflict	Organizational Learning	Organizational Culture Re-Shaped	Decrease Isolation
Trust	Stewardship	Neutral Zone	Collegial Networking
Nature of Change	Vision	Build a Team	Increase Change

In addition to Table 1, the characteristics of sustainability of business reform initiatives are beginning to emerge in school reform. These characteristics center on the need for leadership, the ability to reduce fear and anxiety during the change, developing a method to measure and assess the progress of the initiative, and (once again) the need to foster communication and collaboration (Senge et al., 1999; Fullan, 2005). These four points of alignment have clearly shown themselves as determining factors of success in the past; however communication and collaboration continually emerge as the two strongest points of alignment. These points of alignment along with the characteristics of sustainability mentioned earlier form the conceptual framework to conduct this study.

Organizational Intelligence: A Theoretical Model

David Perkins (2003) proposed a theoretical model which can be used to measure the intelligence development occurring within an organization. It is not an easy task to

get people to work together and join their mental talents. He described this as "The lawnmower paradox: Pooling physical effort is usually rather easy. Pooling mental effort is usually rather hard" (p. 3). He attempted to provide an answer to the following paradox, "What is organizational intelligence, why is it so hard to come by, and how do we get more of it?" (p. 14). A possible answer to this question is that "organizations are made of interactions, the virtual neurons that tie an organization together" (p. 19). Perkins suggested that "organizational intelligence is fostered through conversations, feedback, leadership, collaboration, trust, managing conflict, and understanding the nature of change" (p. 19).

<div align="center">

Perkin's Model of Organizational Intelligence

</div>

Progressive Communication

                Conversations

                Symbolic Conduct

                Written Communication

                Listening

Collaboration

                Knowledge Processing
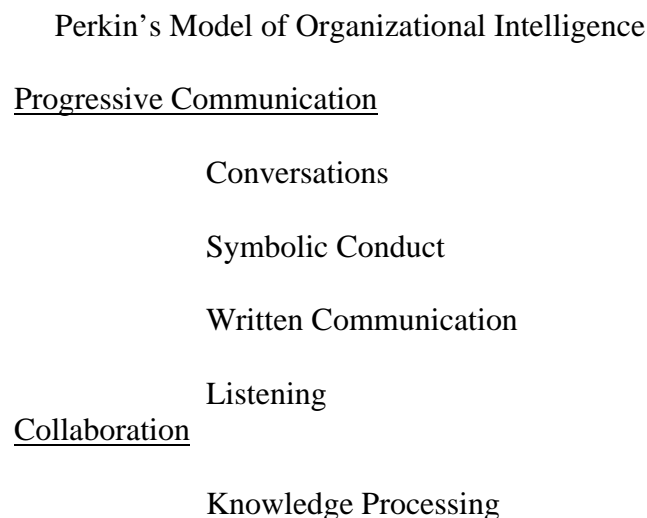
Figure 2. The elements of Perkin's Model of Organizational Intelligence.

      Perkins suggested that an intelligent organization has effective archetypes, models, or patterns of interaction that are usually progressive not regressive. Progressive reactions are positive and are done without harmful intent. Regressive interactions are negative and often hurt someone. Progressive interactions serve as a primary measurement of organizational intelligence. The next measure related to progressive

versus regressive interactions involves the communication and collaboration of the members of the organization.

The communication that occurs within an organization can be measured by the progressive versus regressive interactions that occur within conversations, symbolic conduct (implicit messages people read in one another's actions), written communication (e-mails, memos, reports, etc.), and whether or not attentive listening occurs. Effective knowledge processing is a key component of organizational intelligence.

Knowledge processing is improved when there is progressive collaboration occurring among members of an organization. The members of an organization must treat each other with respect and respect the opinions of others in order to enable everyone's knowledge processing to develop to its potential. There are several keys that are important to developing knowledge and understanding the knowledge that is produced within an organization.

First, we must recognize organizations as conversations in and of themselves. When hot spots of interaction develop, there must be a value system in place and a grievance system in place so that people are able to resolve their differences informally with mutual respect or formally with progressive arguments and persuasion. When communication and collaboration are fostered, attention is given to progressive forms of feedback during problem solving. Group decision making reflects the organization's belief that everyone can grow smarter together and people feel empowered to act on the mission of the organization; however, the leadership that is needed to foster this land of collaboration and resolve conflict is often situational. There is no one specific type of leader in an intelligent organization; therefore, leaders must be able to adapt to situational

circumstances. The leader must act with a consistent approach that it is progressive and conveys respect to members of the organization. The leader or leaders in an intelligent organization must realize that knowledge processing requires flexible decisions that anticipate pitfalls. These actions are undertaken with conduct that symbolizes the values of the organization.

Symbolic conduct involves being conscientious of the messages that people read into the actions of others. Perkins explained that there are archetypes of interaction. These archetypes are either progressive or regressive and involve using common sense, responding in kind, and understanding reactions that people have which signify dominance, submission, or reciprocity. An intelligent organization has a great majority of progressive (positive) versus regressive (negative) situations on a daily basis. There is observable positive symbolic conduct and actions versus negative symbolic conduct and actions. According to Perkins, within organizations similar actions are repeated. This means that progressive and regressive archetypes produce their own kind. It is vital to understand that regressive conduct dominates progressive conduct because it is easier and requires less intelligence. The intelligence of an organization can be uncovered by observing emergent patterns in progressive over regressive conversations, symbolic conduct, and collaboration in a well developed contact method in the organization. Progressive archetypes are with-in reach and can be sustained with commitment, effort, and vigilance around "organizational hot spots" (Perkins, 2003, p. 90).

Perkins tried to answer how we can get more organizational intelligence by looking for the web of intelligent conversations within all levels of an organization.

Evidence of organizational intelligence occurs by observing and documenting the

conversations that occur both formally and informally. A key component of

communication that is often overlooked is the type of feedback that occurs.

Perkins stated "feedback is fundamental to performance and learning in

individual, community, and organizational situations" (p. 41). Feedback is done in a

loop. Communication occurs, feedback is given and the loop or cycle repeats itself unless

the communication ends. Feedback can be negative, conciliatory, or communicative.

Negative feedback is the most painful type of feedback to people within any

organization. However, negative feedback is an efficient way to communicate what is

wrong. It can be misinterpreted and does not clarify an idea or behavior. Negative

feedback violates the progressive doctrine espoused by Perkins.

Conciliatory feedback is viewed as pleasant. It is not threatening. Often

conciliatory feedback is viewed as encouraging. The problem with conciliatory feedback

is that it is open to interpretation and may be misleading.

Communicative feedback clarifies an idea or comment so that all parties are

clearly talking about the same thing. This type of feedback is read as "careful, respectful,

and honest" (p. 47). Communicative feedback does require more time, thought and

effort. It is viewed as progressive and beneficial to an organization and requires work.

The major obstacle to organizational intelligence development is that it is hard

work. It requires a continuous effort to be positive or progressive in all relationships and

communication. Negative or regressive effort and communication is more powerful and

easier to obtain. It is hard to not let these influences affect the organization. Perkins' hope

is that by recognizing this fact and by being aware of regressive archetypes we can counter the negative results that are associated with regressive archetypes.

Perkins' argument was that organizational intelligence can be recognized by the progressive actions and reactions in conversations, symbolic conduct, written communication, listening, and collaboration. There is no one way to be the best leader to increase organizational intelligence in every organization. Different approaches may be needed at different times. The leader must overcome the obstacle of recognizing the type of organization he/she is in, the problem, the involved stakeholders sitting around the round table, the context, and the stress. He/she must then decide how to move to impact the organization.

<center>Leadership Theory-Points of Alignment</center>

The study of leadership is a continuing process. Throughout this process, certain points of alignment have emerged. There are six points of alignment that are common in the work of Collins (2001), Gardner (1995), Fullan (2005), Heifetz(1994) , and Kotter (1998). The six points of alignment are identified as shared vision, communication, empowerment, innovation, organizational learning, and stewardship.

<center>*Leadership Point One- Shared Vision*</center>

Leaders should be able to communicate to their constituents a vision of the goal for the organization. Collins used the term "hedgehog concept" to identify the shared vision that a business embraces (p. 96). The "hedgehog concept" identified what the organization "can be the best at, has a passion for, and can make money at" (p. 96). Collins identified highly successful businesses that rose to the top of their profession and sustained that position for a long period of time. Businesses that sustained their success

had a clear and consistent vision of how to reach the organization's goals. Howard Gardner described the shared vision as the leader being able to communicate "the story" (p. 42). The story was the message or belief that the leader wished everyone to know and embrace. Michael Fullan called the shared vision "the reality test" (p. 85). The reality test was the shared vision that all members of the organization know and are committed to. This vision, when examined closely, can be measured by accomplishing both short term and long term goals directly related to that vision. "The organization must first get the basics right, then determine their direction" (p. 85). Heifetz sought to identify what is essential versus what is not essential in an organization. Organizations must face the reality of their situation and mobilize toward change. Kotter listed "eight steps to transform your organization" (p. 6). He clearly stated that one of those steps is to "create a vision" (p. 6). "An organization must set realistic goals, identify complacency, and identify by brainstorming methods to offset the complacency" (p. 4). The organization then can move forward. Collins, Gardner, Fullan, Heifetz, and Kotter stressed the importance of communicating this shared vision.

Leadership Point Two- Communication

An effective leader must be able to communicate the vision for his/her organization clearly. Collins described the ability to communicate as the leader's ability to encourage everyone to "confront the brutal facts" (p. 65). The leader must establish a climate where the truth is heard. Employees should not be fearful of communicating their beliefs. Gardner explained that the leader needed to understand communication by knowing the audience. He described that many audience members seek understanding based on very simple explanations that reminded him of a "five year old mind" (p. 26).

Gardner stated "the key to leadership is the effective communication of a story" (p. 62). Fullan acknowledged the ability to communicate by stressing that the leader must be able to convince everyone at all levels that a change is needed and everyone must be receptive to understanding and working through disagreements in a productive manner. Heifetz stressed that the leaders need to have the ability to see and listen. Often a leader leads a conversation. At other times a leader may listen and have the discipline to remain silent so that members of the organization can engage in a deeper thinking to increase understanding. This ability to listen and speak at the appropriate time enables the leader to effectively communicate. Kotter described effective communication by the leader as the ability to "create a sense of urgency" when discussing the vision (p. 1). When communicating the vision, Kotter mentioned the importance of "engaging the right talent" (p. 4). Engaging the right talent can mean letting followers know they have the abilities to help an organization grow. Employees that believe communication is a valued trait of an organization will feel empowered to contribute their expertise to the growth of the organization.

Leadership Point Three- Empowerment

An effective leader can make members feel empowered to carry out the vision of the organization. Collins stressed the importance of employees being able to argue their points of view and then being able to come back later to agree. He described this as a "culture of discipline" (p. 120). In this type of an organization employees have freedom to find solutions to problems that they discover. Equally important is Gardner's description of direct versus indirect leadership. "An indirect leader provides leadership for a group of experts in his chosen domain. He typically does so by virtue of the work

that he executes. Leadership that takes place through direct and explicit communication of a message is direct leadership" (p. 28). This discussion of an indirect leader demonstrating content knowledge that is passed on to colleagues is an example of a direct leader empowering the member of an organization. Fullan explained the importance of empowering all people and developing the leadership of all people by describing "The Long Lever of Leadership" (p. 27). He stressed the need for leaders to build leadership capacities within all levels of an organization so that the organization can sustain a high level of accomplishment by providing "opportunities for the locals to impact the big picture" (p. 27). Heifetz stressed the need to "mobilize people to tackle tough issues" (p. 1). He stated that "the person with the problem is the solution" (p. 7). Kotter discussed the empowerment of others to act on wisdom and knowledge as a key to effective change within an organization. He suggested creating a team based on trust and the recognition that leaders exist at all levels of an organization. When a leader empowers others, there will often be some idea or innovation from another person in the organization which may have been developed or inspired by the leader.

Leadership Point Four- Innovation

The effective leader is able to create or inspire others to create new ideas, concepts, or processes for the organization. This creativity can also take the form of using or developing technology. The innovation idea that Collins mentioned is, "The Flywheel Concept" (p. 165). The flywheel concept is described as small momentum that is begun around an idea within an organization. The momentum that is begun around this new idea is added to with "small pushes" resulting in the giant flywheel moving faster and faster (p. 65). In addition, Collins noted that leaders do not jump on the technology bandwagon

and incorporate every idea that is new. If technology helps an organization succeed with its mission it is used. Gardner established leadership innovation through the use of a leader's knowledge of his/her audience and adapting the message to the audience (p. 36). Indirect and direct leadership is innovative because the indirect leader leads through the creation of symbolic products while the direct leader leads through storytelling and embodiment of the story. Fullan explained innovation within leadership as leaders being "the new theoreticians" (p. 14). An example of one innovation is that new theoreticians think about and solve problems in a new paradigm. The new paradigm is described as the individuals within an organization completing their duties by sprinting, resting, and reflecting on their accomplishments. Then the cycle of sprinting, resting, and reflecting begins again. He explained this as leaders understanding that an organization goes through "cyclical energizing" (p. 25). Related very closely to Fullan's ideas about innovation are ideas proposed by Kotter. Kotter stressed that leaders know how to set realistic goals that are both short term and long term and they briefly allow celebration but do not declare victory until the long term goals are met. Leaders inspire the idea to "consolidate improvements and produce still more change" (p. 6). Heifetz, in Fullan's book *Leadership and Sustainability* (2005), described innovation as a leader "having one foot on the dance floor and one foot on the balcony" (p. 103). The leader has the ability to have one foot where the action is (the dance floor) while having an almost paradoxical ability to have the other foot be away from the grind of what is occurring so that they can reflect and analyze what is occurring (the balcony). The leader is able to always be reflecting on ways to make the organization improve or learn.

Leadership Point Five- Organizational Learning

Leaders are committed to providing continuous opportunities for organizations to learn. Collins (2001) identified this characteristic as "first who then what" (p. 41). He stressed that "a leader first gets the right people on the bus and gets them in the right seat. Then the leader has them help him set the vision"(p. 42). He believes in forming a council within an organization that meets regularly to have dialog and debate. Collins supported an organization's efforts for continual learning by using the council to meet, debate and find solutions. Gardner (1995) lists a section in his book, *Leading Minds*, as "The Organization" (p. 292). Gardner stressed that human development needs should be understood. Due to our primate heritage people have leadership needs. Gardner stated that "people have a proclivity to imitate" (p. 23). People want to be in a "peer-peer, leader-follower, or follower-leader relationship" (p. 24). People have an attainment of expertise in various domains. Gardner believed a leader "must be able to have people share their knowledge of their domains with others" (p. 29).

Fullan (2005) emphasized capacity building as an important component to organizational learning. Capacity building occurs when the knowledge within an organization is increased by establishing alliances of all employees around the achievement of an organization's mission. Lateral capacity building is accomplished through networks that share information. He stated the need for "deep learning and ongoing learning" within an organization that stresses accountability and vertical relationships (p. 70). Heifetz, in Fullan's book, makes us aware of the need to have allies within and outside of an organization that demand "learning, experimentation, and conversations" (p. 22). He stressed the need to be able to respond to "adaptive

challenges" (p. 45). "Adaptive challenges concern problems whose solutions are not known. In other words, addressing an adaptive challenge requires complex learning in politically contentious situations where there are many inertial forces pulling us back to the status quo" (p. 46). Kotter (2002) signified organizational learning as the need to "institutionalize new approaches" (p. 6). There needs to be a quest for learning at all levels of an organization. Transformation needs to reach out of the organization to establish a coalition with others so that learning continues. The leader exemplifies and inspires this commitment to organizational learning. Leaders act as stewards of their organizations beliefs.

Leadership Point Six- Stewardship

The last point of alignment describing leadership characteristics is that of stewardship. In this concept, the leader acts as a steward of the vision or mission. Collins (2001) described the highest level leader in his study of highly sustained businesses as a "Level 5 Leader" (p.17). The level 5 leader does not have a fancy office and is not often very charismatic. The leader is quiet, reflective, and considerate of people while having toughness toward achieving his/her vision that is as hard as rock or metal. The leader has personal humility and professional will. This illustrates the leader as a steward. Gardner (1995) stated that the "developed leader has a certain rhythm of life" that serves as an "embodiment" of what he/she believes" (p. 293). The leader portrays the innovative and visionary qualities of the organization while acting as the steward of the organization. Fullan (2005) stated simply that the leader exemplifies public service with a moral purpose. The leader consistently "communicates the moral purpose with commitment to improvement and the ethical treatment to involve all" (p. 68). Heifetz (1994) found that

the leader displays the creation of the values that we stand for within an organization.

Kotter (2002) wrote that the leader leads by example. He described the leader as the

person who "walks the walk and talks the talk. Say what you mean and do what you say"

(p. 4). In this manner, the leader lives the mission of the organization and demonstrates

stewardship.

Table 2. *The Six Points of Leadership Theory Alignment*

	Shared Vision	Communication	Empowerment	Innovation	Organizational Learning	Act as a Steward
Authors						
Collins	Hedge-Hog Belief	Confront the Brutal Facts	Culture of Discipline	Flywheel Concept	First Who Then What	Level 5 Leader
Gardner	The Story	The Audience	Direct and Indirect Leader	Expertise	The Organization	Embodies Leader-ship
Fullan	Reality Test	Communication	Long Lever of Leadership	New Theori-ticians	Lateral Capacity Building	Public Service
Heifetz	Face Reality	See-Listen-Silence	Person, Problem, Solution	Dance Floor and Balcony	Adaptive Challenges	Create Values
Kotter	Create A Vision	Create Urgency	Powerful Conversation	Short Term Wins	Institutionalize	Walk The Talk

The description and Table 2 of the Six Points of Leadership Theory Alignment

demonstrates that these recognized authors agreed on the qualities and concepts that

leaders of organizations need. These qualities are the ability to develop and promote a shared vision, the ability to communicate, the ability to empower others, the ability to be innovative and to attain the goals of the vision, constantly promoting and participating in organizational learning, and to be actively involved by being the chief steward of the organization's vision. Leadership is needed to manage the change process and to achieve sustainability of growth within an organization. In addition to this theoretical framework related to leadership qualities, additional leading authors (Northouse, 2004; Bennis, 1989; Sergiovanni, 1992; Schwan & Spady, 1998) add credibility to areas of this framework.

A leading researcher on leadership theories, Northouse (2004) conceptualized that leadership is a process that influences people in a group context to achieve a goal. During this process the leader affects and is affected by followers. Leadership is not viewed as a trait or a characteristic. He supported the leadership points of alignment by describing that "leaders establish a direction, create a vision, clarify the big picture, and set strategies. Leaders are able to align people by communicating goals, seeking commitment, and building teams. Lastly, leaders motivate and inspire by energizing and empowering subordinates and satisfying unmet needs" (p. 9).

Clearly, leaders must motivate and inspire others; however Bennis (1998) identified some societal issues that must be overcome in order for this to happen. He identified the obstacles of isolation, cynicism, routine, inertia, and turmoil. Outstanding leaders overcame these obstacles by possessing the ability to manage attention by drawing people to them, by developing meaning within situations, by establishing trust, and by knowing themselves. These leaders must demonstrate certain personal qualities which include leading a fulfilling and integrated life, providing service to others,

understanding their mission in life, and applying the energy to fulfill their vision of excellence.

One of these characteristics was recognized by researcher, Sergiovanni (1992). This was the ability to serve others and have a moral component to the life of the leader. Sergiovanni is an advocate for a moral dimension in leadership. He believed that schools are organizations that need to empower teachers and emphasize obligations and commitments. Collegiality is needed for professional growth. Important sources of motivation for school personnel involve strengthening emotions and social bonds. Stewardship by the leader is significantly demonstrated for all those around him/her. Sergiovanni (1992) called this leading by "the head, the heart, and the hand of leadership" (p. 7). Reflection, personal vision, and values guide the head of the leader. The heart of leadership is the person's beliefs, values, and commitment. The hand of leadership is the leader's behaviors and actions in varied situations. "The head of leadership is shaped by the heart and drives the hand; then in turn reflections, decisions and actions affirm or reshape the heart and the head" (p. 7). This lays out a clear moral perception of leadership.

An additional framework that was developed by Schwan and Spady (1998) was used to conceptualize their research on leadership. One part of the framework emphasized the need to develop a strategic direction and alignment. The strategic direction encompasses beliefs/values, mission, exit outcomes, and vision. The category called strategic alignment embodies people, practices, policies, and structures. The key domains of total leaders that were identified were leading with a purpose, emphasizing the development of the culture of the system, being a quality leader that empowers those

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around you, and leading by service by providing the necessary support for people to be successful. Schwan & Spady concluded by naming the five pillars of leadership as purpose, vision, ownership, capacity, and support. Leadership is needed to manage the change process and to achieve sustainability of growth within an organization.

Change Theory

A theory of change was presented to all of the leadership teams in the PAHSCI on March 6, 2006. The presenter, Ann Delehant, utilized a model adapted from Tools for Change Workshops, National Staff Development Council (1993). Delehant's presentation, The Journey of Change, had many of the same elements as the work of Kotter and Cohen (2002) in *The Heart of Change.* The authors espouse an eight step process to reach the hearts of people involved in the change initiative. Delehant (2006) described the need to understand how people feel and what people need.

The following list establishes a comparison of the steps involved during these two change processes:

The Journey of Change	The Heart of Change
1. Change is imminent.	1. Increase urgency.
2. A catalyst starts the change.	2. Build the guiding team.
3. Momentum begins.	3. Get the vision right.
4. Implementation dip.	4. Communicate for buy-in.
5. Renewed momentum.	5. Empower action.
6. Some success.	6. Create short-term wins.
7. Change becomes a part of life.	7. Don't let up.
	8. Make change stick.

In addition to these two theories of change, Bridges (1991) investigated a process to manage the change process. He described the steps needed to accomplish management of the change process. Bridges explained the importance of communicating to people, in as much detail as possible, a description of the change that lies ahead. Leaders should not be surprised at the over-reaction of people during this step because it is like grieving. The leader of an organization needs to lead the constituents through the next phase called the neutral zone. During this middle phase there is a time of chaos. Opportunities for creative solutions will be present. A knowledgeable manager of the change process can use this as a great time to improve the organization by capturing the creative solutions offered by people in the organization. Lastly, a new beginning is launched. The new purpose of the organization must be communicated regularly to the people in the organization. Bridges quoted the famous American writer Anne Morrow Lindbergh; "Only in growth, reform, and change, paradoxically enough, is true security found" (p. 92). Bridges' philosophy of managing change is demonstrated in his organizational life cycle that has several common elements to the steps of change mentioned by Kotter and Cohen (2002) and Delehant (2006).

"Bridges Organizational Life Cycle" begins with the dream of what can be accomplished. The organization then launches the new venture. As the new venture is started there is some stress that causes the organization to become more organized toward achieving their goal. The next step is that the organization makes it and becomes an institution. The final step is for the organization to realize the need to reinvent itself by returning to the first step by dreaming a new dream, which restarts the cycle.

Cook, Macaulay, and Coldicott (2004), in *Change Management Excellence:*

Using the Four Intelligences for Successful Organizational Change identified success

factors supporting change in an organization:

> Prepare for the long term. Change will not be a quick fix. Skillful leadership and strong vision touch hearts and minds. Sustain momentum by rewards and celebrating successes. A leader will follow-up with mentoring and coaching. Strengthen networking and two way communication. View change initiatives in line with the total business strategy. Involve stakeholders. Design initiatives to incorporate partners. Resolve conflicts of aims, values, and interests. Communicate widely, internally and externally. Manage each step of the change process while expecting people to go through denial, rejection, and acceptance before fully taking on board the change message. Monitor and evaluate success at every level (p. 217-218).

Knowledge is expanding all around us. Leaders need to accomplish the

management of change while organizations themselves are adjusting to the speed of

change in the world.

Michael Fullan (2005) has discovered similar leadership characteristics that are

needed for organizational learning to occur during the change process. Leaders need to be

pacesetters who acknowledge that a change in the culture of the organization is extremely

important to sustaining change. Cook et al. (2004) acknowledged the importance of

addressing the mental, emotional, spiritual, and physical intelligences found in leaders

and followers. Fullan agreed that changes are needed on a mental, physical, emotional,

and spiritual level. He made reference to individual and organizational growth occurring

in the same manner as muscular growth. A muscle must be exposed to discomfort in

order to grow. The muscle then needs adequate time to recover. Organizational and

individual change occurs when discomfort is followed by adequate time for recovery.

Leaders are described as "energy creators that exhibit characteristics that inspire others"

(p. 37). Leaders need to lead a "revolution in pedagogy" in order to sustain individual

and organizational learning (p. 57). Changing school culture requires changing pedagogy. Value added assessment is one way to strive for cultural change. Value added assessment is the attempt to measure individual success of a student by comparing his/her achievement to a previously established academic goal. The Hay Group, 2004 identified the top six traits of "high-value-added-schools" (p. 57-58).

Six Traits of High Value-Added Schools

 1. Measuring and monitoring targets and results.

2. A hunger for improvement-high hopes and expectations.

3. Raising capability-helping people learn-laying foundations for success.

4. Focusing on value added-holding hope for every child.

5. Promoting excellence-pushing the boundaries for achievement.

6. Making sacrifices to put the students first.

There is very much a sense of moral purpose that emphasizes progressive communication. Fullan (2005) analyzed that for sustainability to be developed by today's leaders, who he calls "the new theoreticians", eight factors must be present. "Sustainability is related to whole system capacity building. Large scale reform has failed in the past due to external accountability, command and control. Informed prescription has achieved some result" (p. 13). Fullan quoted Heifetz (2003) stating that "the problem of sustainability is the ultimate 'adaptive challenge'" (p. 13). Fullan suggested that the solution for school improvement is that "every abstract concept must be accompanied by a practical strategy that illustrates the concept in action. Solutions must be both theoretical and practical" (p. 13).

Coaching as Professional Development

Showers and Joyce, educational research experts in the field of peer coaching, stated in the chapter *The Evolution of Peer Coaching* found in *Contemporary Issues in Curriculum* (Ornstein, Behar-Horenstein & Pajak, 2003) that "the processes of training and implementation have come under close scrutiny in the last twenty-five years" (p. 316). Prior to 1980 teacher training sessions failed to produce extensive classroom changes due to a system that did not understand the complexity of adult learning. In 1980, Joyce and Showers discovered that the most productive form of teacher training involved "modeling in the classroom and practice under simulated conditions in the classroom combined with feedback" (p. 316). They discovered that teams of teachers "…developed skills in collaboration and enjoyed the experience so much that they wanted to continue their collegial partnerships after they accomplished their initial goals" (p. 13). The formation of peer coaching teams produces greater faculty cohesion and focus and in turn facilitates more skillful shared decision making.

Neufeld and Roper (2003) stated "that the need for professional development is obvious; many teachers are not prepared for the challenge of educating all students to high levels" (p. iii). Coaches seek to meet this need by inspiring collaborative work to develop the intellectual capacity of the school. "The term coaching includes activities related to developing the organizational capacity of whole schools. Content coaches focus on improving teacher's instructional strategies in specific areas; for example mathematics or literacy. Change coaches address whole-school organizational improvement" (p. 4).

Relevant to instructional coaching, Wurtzel (2006), a researcher for the Aspen Institute, who sought to identify what high schools need to transform teaching and

learning, mentioned a direct connection between coaching, peer observation, and

dialogue as effective methods to improve instruction. Student performance can be

increased around teacher and content interaction that are designed with six components.

The six components are: developing a new teacher job description, attracting and

retaining highly effective teachers, clear expectations regarding instructional practices,

anchoring standards and aligning assessments, developing a core curriculum, developing

common lessons, and developing a system to build teacher capacity. Four of these six

components, that were uncovered in the research about transforming high school teaching

and learning, deal directly with teachers and institutions and are related to the PAHSCI

Theory of Change.

Coggins (2004) asked the research question: "how do coaches promote

communication and knowledge sharing within and across different content areas in the

high school" (p. iv.)? Her work, *Coaching as a District wide Reform Strategy,* was

initiated to try to illuminate the emerging interest in literacy coaching as a professional

development model designed to improve teacher performance thereby improving student

learning. Dr Diane Brown et al, (2006), in their first year report of the PAHSCI, stated

that:

> coaches help teachers select appropriate instructional strategies and then custom
> tailor those strategies to the specific needs of the classroom. Although there is not
> yet conclusive research linking coaching to increased student achievement, a
> number of studies indicate that coaching helps teachers better understand
> instructional practices and more widely adopt and use new skills and strategies (p.
> 4).

Emerging research documents Dr. Brown's conservative statement. Nowecien

(2005) found that student reading achievement increased. Simon (2006) found that one

high school improved its state accreditation rating by one level. This change was

attributed to the work of the instructional coach. This new and exciting experience in education is tempered as the roles of the instructional coach are being defined. Jim Knight (2004) found that when teachers insure fidelity to the instructional techniques, that leads to higher student achievement in the writing assessment domain. Knight, educator and researcher at the University of Kansas Center for Research on Learning states that the major reason to use the coaching model for professional development is that there is an 85% to 90% implementation rate of teachers using the instructional strategies. Showers, Murphy, and Joyce (1996) reported that the implementation rate for new learning in traditional professional development without follow up is 10%.

Coaches are expected to increase collegial networking and collaboration. They act as change agents to improve student engagement in learning. Literacy and mathematics skills are to be integrated into all content areas. Coaches contribute to developing a community of learners while knocking down the walls of isolationism that so often surround teachers. Currently within the PAHSCI nine roles of a coach have been identified (Brown et al., 2006).

The nine roles of a literacy or math coach are to act as a resource provider, data coach, curriculum specialist, instructional specialist, mentor, classroom supporter, learning facilitator, school leader, and a catalyst for change. The coach and teacher work collaboratively to plan, enact, and reflect on lessons, acting as resources for each other. It is equally important to identify what a coach should not be involved with. The establishment of a trusting relationship with teachers is an integral step that coaches need to constantly work on getting, fostering, and maintaining. The coach is not an administrator, evaluator, supervisor, expert, whistle blower, or fixer. In addition, their

role should be respected to the point that they are not used by administrators as substitute teachers.

In order to serve in this capacity the coach has to have a number of specific attributes. First and foremost, the coach must be trustworthy and honorable. It is a great opportunity to enter a peer's classroom with the goal to improve student achievement. The coach needs to be approachable and act as a facilitator. Passion about teaching and learning are key qualities that coaches need to have. Coaches need to be committed to improving student learning and have a deep understanding of instruction and curriculum design.

Coaches are helpful when they support reflective practice and lead through inquiry. They focus on the strengths of teachers and students and are able to build collaboration among teachers. The coaches help plan and teach lessons while advocating for teachers and students.

The use of literacy and mathematics coaches in the PAHSCI as a professional development model emphasizes the key components identified in organizational learning theory and an organizational intelligence model, change theory, and leadership theory. Coaches need to be excellent communicators. They must be able to inspire collaboration among teachers. In addition, they act as change agents.

<div align="center">The Characteristics of Sustainability</div>

Authors Fullan (2003), Senge, Kleiner, Roberts, Ross, Roth, and Smith (1999), and Danielson (2006) and researchers Carr-Lambert (2004), Wenger and Snyder (2000), and Neufeld and Roper (2003) have studied the concept of sustainability of initiatives within educational institutions and businesses. This section will examine characteristics

that have been discovered or are currently being studied in an effort to determine how to measure the sustainability of the PAHSCI.

Fullan's Eight Elements of Sustainability

Michael Fullan (2005) has studied educational reform initiatives in England, Canada, and the United States. There are two key threats that Fullan viewed as detrimental to sustainability. The first concern is that pressure and accountability will produce results. He discovered that mandated pressure to change can produce positive results; however, the results are not sustained. Fullan concluded that dependence on only pressure and accountability without a commitment to continued professional development does not increase the probability of a new initiative becoming sustainable. The second threat is that organizations may have the belief that sustainability can occur without a conscious effort toward continued deep learning and building capacity throughout the entire system. He described eight elements of sustainability that are necessary in order for any change initiative to be successful. The eight elements that he identified to encourage sustainability are public service with a moral purpose, commitment to change at all levels, lateral capacity building, intelligent accountability and vertical relationships, deep learning, short term and long term goals, cyclical energizing, and the long lever of leadership.

The first element is that there needs to be public service with a moral purpose involving three aspects. The goal to increase student learning must be raised. Closing the achievement gap, found among different student sub-groups, needs to occur. All people must be treated with demanding respect. The social environment of schools must be altered to provide a better learning environment.

Next, there needs to be a commitment to changing context at all levels. Changing systems means that the context that people work in must be changed. There must be an understanding of the relationship between the school and community, the school district, and the systems that are used to provide for the education of children. The amount of interaction between the individuals in the three levels needs to increase within and across those systems.

The increased interaction among individuals will lead to lateral capacity building through networks. Principals and teacher leaders collaborate to learn from and contribute to school improvement efforts. Fullan echoed the same philosophy as Perkins (2003) when he stated that "collaboration is better than competition" (p. 17).

The fourth element necessary for sustainability is intelligent accountability and vertical relationships. Local ownership and external accountability create a tension that must be solved during the change. A mixture of collaboration and networks that people form will lead to a shared commitment. A relationship that looks upward to district, or state communication is essential. An understanding must exist between the local authority and the higher authority for the need for each other. Fullan stated that "self and outside evaluation must co-exist in a dynamic tension. Too much intrusion de-motivates people; too little intrusion permits drift or worse" (p. 20).

A commitment to deep learning represents Fullan's fifth element needed for sustainability. "Continuous learning, improvement, adaptation, and collective problem solving in the face of complex challenges that keep arising" represents an organizations way to foster deep learning (p. 22). Fear and distrust must be eliminated in order for the members of an organization to increase their knowledge. It then becomes

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imperative to use data to assess what is occurring within an organization. Fullan sited a method to accomplish this as the "Army's After Action Reviews, which has three standard questions: What was supposed to happen? What happened? What accounts for the difference" (p. 23)? Deep learning involves developing a "collaborative culture of inquiry" (p. 23). The learning that can be accomplished comes from the use of data and experience. Government involvement, with districts and schools, is needed to foster deep learning and create short-term and long term results.

The sixth element to create sustainability is a commitment to short term and long term results. The initial step is to establish attainable goals for students. If initial goals are not achieved, immediate intervention should occur. As the commitment to continuous improvement becomes recognized by the public a cyclical result will occur. Learning increases, achievement improves, public trust follows, and the public willingness to invest in public education will increase. The cycle for improvement will continue.

Cyclical energizing, the seventh element, is the term Fullan used to describe that "sustainability is not linear; it is cyclical, for two fundamental reasons. One reason has to do with energy and the other with periodic plateaus, where additional time and ingenuity are required for the next adaptive breakthrough" (p. 25). Fullan quoted the work of Loehr and Schwartz (2003) that energy, not time is the fundamental currency of high performance based on four principles:

1. Sources of energy are physical, emotional, mental and spiritual.

2. Balance energy use between expenditure and renewal.

3. Build capacity beyond our normal limits as an elite athlete does.

4. Positive energy rituals emphasizing specific routines for managing energy.

These four principles lead to a new paradigm.

Old Paradigm		New Paradigm
Manage time	versus	Manage energy
Avoid stress	versus	Seek stress
Life is a marathon	versus	Life is a series of sprints
Downtime is wasted	versus	Downtime is productive
Rewards fuel performance	versus	Purpose fuels performance (p. 25)

"The best learning organizations investigate, learn, experiment, and develop better solutions" stated Fullan (2005, p. 27). We need to constantly return to the beginning, our purpose, and then learn more to implement our purpose, mission or goal.

The eighth and final element of sustainability is the "long lever of leadership" (p. 27). Fullan quoted Archimedes who said, "give me a lever long enough and I can change the world" (p. 27). For sustainability to occur, that lever is leadership described by Fullan as people who are "the new theoreticians" (p. 27). The new theoreticians are able to create, analyze, carry out and use theory in a practical way. Leadership needs to expand to all levels of an organization. The goal of leaders described as the "new theoreticians" is to foster all eight elements of sustainability: public service with a moral purpose, commitment to change context, lateral capacity building, intelligent accountability and vertical relationships, deep learning, dual commitment to short-term and long-term results, cyclical energy, and the long lever of leadership working together at the same time so that they constantly are interacting with each other.

Senge, Kleiner, Roberts, Ross, Roth, and Smith, (1999) have written extensively about leadership and how to sustain change efforts. This work identified several key concepts and offers an innovative approach to initiating and sustaining change. Senge sought to examine the sustainability dilemma from examining our most basic way of thinking. He explained there is an inter-play between the growth process and a limiting process. We need to understand what reinforces growth and feed it; yet understand what impedes growth and address it. The best leadership happens at the level where most of the change occurs first. Leaders must create an environment to 'enhance learning capabilities and psychological safety" (p. 246). I like to think of this concept as a playfulness that occurs between continued growth and limits.

The first impediment to sustainability is "fear and anxiety" (p. 247). This challenging factor can be overcome by creating an open environment and insuring that there are no negative consequences for expressing honest opinions. Leaders need to listen deeply to what is said and what isn't said. Senge et al., (1999) uses the term "gray stamps" to refer to minor hurts that people let pile up until one day they un-lease this hurt onto the person or organization who they perceive wronged them (p. 251). The solution he recommends is to "learn to craft our conversations to be courageous and compassionate" (p. 252). Eliminating fear and anxiety is so important that Senge et al., (1999) devoted eight chapters to this topic in *The Dance of Change* before exploring the next sustainability concept of assessment and measurement.

Senge et al., (1999) explained that sustainability may be difficult to determine if an organization is unsure how it will measure the success of an initiative. "One especially challenging limiting process involves basic problems of measurement and assessment:

how do people judge whether something new is working?" (p. 281). He continued by stating that "expectations as well as observation influence assessment" (p. 281). He further concluded that "measurement dilemmas cause many otherwise promising initiatives to flounder" (p. 283). The challenge of measurement and assessment of an initiatives progress is addressed by Senge et al., (1999).

First of all, the authors recommended that the time delays that are involved in profound change are respected by those who judge the success or sustainability of an initiative. The work of Fullan (2005), sited earlier, agreed that a solution to this problem is to create short term goals and celebrate the success of attaining these goals. It is important to involve all levels of leaders including those on the executive level in developing new ways to interpret the traditional quantitative data that are used to measure success. Senge stated that "the key shift is to bring measurement and assessment into the service of learners, rather than have it feared as an outside tool for evaluators" (p. 289). One of the keys that had been discovered was that conversations about measurement and assessment should be on-going and related to new thinking. This new thinking involved how to use numerical data to assist the sustainability of an initiative. Schlechty (1990) and Daggett (2007) have addressed the issue of the measurement and assessment of student work.

Schlechty (1990) mentioned the importance of measurement of learning. He advocates that the work that teachers create for students should be a primary source of measurement. He has advocated that the over-reliance on numerical data provided by standardized tests should not be the true indicator of learning. It is what students do with

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the knowledge they have gained and how they apply it that is important and needs to be measured.

William Daggett, President of the International Center for Leadership in Education, assisted in creating the Rigor/Relevance Framework in 1997. The framework presents a model to organize and define curriculum and instruction. This framework was described at a high school reform conference, April 4, 2007, in a handout entitled *The Education Challenge: Preparing Students for a Changing World*. There are two continuums in this framework:

> One axis of the continuum defines rigor as learning in which students demonstrate a thorough, in-depth mastery of challenging tasks to develop cognitive skills through reflective thought, analysis, problem solving, evaluation or creativity. It is the quality of thinking, not the quantity that defines academic rigor. The other axis of the continuum explains relevance as learning in which students apply core knowledge, concepts, or skills to solve real world problems. Relevant learning is interdisciplinary and contextual. (p. 2).

This framework is an example of how the issue of measurement and assessment, identified by Senge et al., (1999), is being addressed within the educational environment as the mandates of NCLB are bearing down on educational institutions. The last issue regarding sustainability that Senge identified which needed to be addressed is very complicated. This issue revolved around how to bridge the gap between the believers and non-believers of a change initiative.

The third issue that must be addressed in order for sustainability of an initiative to continue revolves around the continuous learning and efforts for improvement in performance exhibited by a pilot group within an organization. This group is identified as the believers within an organization. The progress and enthusiasm exhibited by the believers needs to expand from this pilot group to the other parts of the organization

(Senge et al., 1999). If the pilot group that tries a new initiative is successful, other

members of an organization may infer that what they have done in the past was not

successful or was not good enough. Resentment can then become an obstacle to change.

The pilot group may also want to stay together. They may strive to become more

"isolated and distance themselves from the rest of the organization" (p. 320). If the pilot

group is viewed as not being successful their efforts can be viewed as a "misguided

management fad" (p. 320). He described this dilemma:

> In many ways zeal and isolation are the most insidious unintended consequences
> of profound change. The deeper and more effective changes that occur in a pilot
> group, the more easily they can come into conflict with the larger organization.
> The more people do change, the more different they become, in their thinking,
> and acting, from the mainstream culture. The more they do succeed in producing
> significant advances in practical results, the more potentially threatening they
> become to others competing with them for management attention and reward (p.
> 321).

The authors offered potential solutions to the difficult issue of bridging the gap between

the believers and non-believers within an organization.

Senge et al., (1999) used the term "bicultural" to describe the ability of leaders to

live in two very real worlds (p. 328). One world is filled with innovation and the other

world is the mainstream of everyday life within the organization. One quality he

identified was the need to develop tolerance while recognizing the appropriate time to

challenge or conform. The conscious ability to try to recognize the factors at work against

the initiative can create understanding at the start of an initiative. A cultivation of the

term "reflective openness" describes the ability of people to handle conflict by being able

to broaden their own thinking rather than responding defensively (p. 332). Leaders need

to respect that non-believers are sent messages they need to change and they will

experience discomfort. Additionally, leaders need to communicate effectively to get nonbelievers to hear about the change initiative from the perspective of the believers (p. 332). The last suggestion described, to foster acceptance of a change, was to begin the change process based on the beliefs of the core values of the organization.

Many of the core believers in our current study are teachers. Teacher leadership and sustainability have been studied by Charlotte Danielson (2006). Danielson sought answers to how teacher leaders were able to sustain teacher involvement in new instructional initiatives. Teacher leaders were able to facilitate group processes by having a great ability to listen and maintain a focus. They consistently demonstrated clarity of vision and persuasiveness. She identified contributing and challenging factors related to cultural and structural domains of an organization when developing teacher leaders. "The cultural factors that support the development of teacher leaders are a collegial relationship with administrators, a culture of risk taking, democratic norms that demonstrate administrators listen to teachers, and teachers are treated as professionals" (p. 125-128). Contributing structural factors that Danielson identified were "…a presence of mechanisms for involvement in school governance, proposing ideas, time for collaboration, and opportunities to acquire skills needed to work with and teach content to teachers" (p. 128-131).

Challenging factors that Danielson (2006) identified in the cultural domain included administrators feeling threatened by teacher leadership, and reluctant teachers being under-confident and not wanting to step over the line of perceived acceptable behavior with their peers. "Structural factors that inhibit the development of teacher leaders are framed around a belief system that teachers are to be spending their school

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day instructing students and other use of teacher time is not important" (p. 129-131).

There needs to be a commitment to provide time for teachers to do professional work.

Danielson concluded her work by stating "as teachers in a school improve their practice

and share their findings with colleagues, the collective wisdom increases" (p. 35). This

begins to define the school as a learning organization.

Carr-Lambert (2004) in a study on the sustainability of a school district take over

in West Virginia summarized seven key elements related to maintaining the sustainability

of this reform:

> There was removal of political corruption that allowed for a positive change to
> occur. A share process/procedure (vision) about how to accomplish goals was
> established. Power was shifted from local control to higher control. The culture
> was changed to a more positive environment. There was a proper fit of people
> with their positions who were capable and accountable for doing their jobs.
> Vertical and horizontal communication was established throughout the system.
> There were distinct levels of leadership and leadership support developed (p. 128-
> 129).

This study determined that there was a distinct progression of leadership styles

throughout the reforming of this school district. Laissez-faire leadership was present

prior to the takeover. Authoritarian leadership was exerted to begin the process followed

by a transformational style of leadership that was "considered to impact and promote

sustainability" (p. 143).

Wenger and Snyder (2000) studied how to develop communities of learners

within an organization. They discovered within the business domain that when people are

put together to discuss an issue there is an output of knowledge. Therefore, learning

communities can thrive when management can create an infra-structure that includes time

and money to listen to members' stories. The stories of the members provided anecdotal

information to prove that knowledge was built and sustained.

Neufeld and Roper (2003) determined that leaders needed to provide clear, explicit, and continuing support for the coaching process if sustainability is to occur. "It is implicit for district leaders to keep in mind the challenge of changing instructional practice so as not to become convinced that the reforms are not working or put impossible expectations and demands on teachers and principals" (p. 23). The key to sustainability is grounded in teacher change and continuous learning. The outline for improving instruction and thereby student achievement comes from addressing teachers' learning needs, implementation assisted by the coach, teachers sharing and assuming responsibility, principal leadership, school culture that focuses on instruction, discussion and reflection, and use of achievement data to guide instructional improvement. These authors determined that "sustainability occurs by increasing teacher capacity and in-house capacity by examining the quality of student work" (p. 27).

Summary of Sustainability

There are similarities in the work of Fullan (2005), Senge et al., (1999), and Carr-Lambert (2004). They identified the challenges to sustainability and the factors that lead to the sustainability of a reform initiative. Fullan emphasized that the use of pressure and forced accountability and lack of capacity building throughout a system inhibits a change process. Senge stated that fear and anxiety, problems with measurement and assessment largely needing to be quantitative in order to be convincing, and bridging the gap between zeal and isolation were factors that can halt a new initiative from being sustainable. Carr-Lambert found in her study that laissez-faire leadership within a political system which contained elements of corruption along with a lack of vision can cause a school system to be taken over by the state department of education.

The work of Danielson (2006), Wenger and Snyder (2000), and Neufeld and Roper (2003) emphasized the development of a culture that builds a community of learners. Collegiality and communication within a democratic culture lead to increased chances to sustain the organization's initiatives. The use and development of teacher leaders or coaches can be the catalyst needed to build a community of teachers into a sustainable learning organization.

There are characteristics that can be identified to serve as a guide to recognize if a change initiative may be sustainable. The key characteristic is that fear and anxiety should be replaced by an emphasis on positive or progressive communication that has an equal and moral treatment for everyone in the organization. The mission or vision of the organization is known by all and leaders empower others to collaborate to find solutions to complex problems by building capacity throughout the entire organization. Communication is encouraged around assessment and measurement of short term and long term goals in order to make assessment meaningful to everyone. Organizations that sustain an initiative have a reflective culture that is not defensive when challenged. People are willing to keep an open mind to consider new ideas. One last element to consider that is unique to Fullan (2005) is to "view a new paradigm shift where change is not viewed as a marathon; it is viewed as a series of sprints where there is time to reflect and rest. This approach allows members of an organization to seek out stress rather than avoid stress. Purpose fuels performance rather than rewards" (p. 26).

<center>Summary</center>

This chapter examined the common denominators and the points of alignment across the dimensions of organizational learning theory, leadership theory, the change

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process, and research on sustainability of reform initiatives. This literature review guided the development of inquiry into the specific experiences of individuals involved in the Pennsylvania Coaching Initiative.

Leadership Theory -Change Theory-Organizational Sustainability

Learning Theory Characteristics

Points of Alignment
1. Communication
2. Collaboration
3. Empowerment
4. Vision

A. Leadership
B. Reduce Fear/Anxiety
C. Measurement/Assessment
D. Communication/Collaboration

Provides a Framework to Focus Research On
The PAHSCI Theory of Change

District and School
Enabling Conditions
-Leadership
-Organizational Infrastructure
-Momentum for Change
-Knowledge

Partner Supports

-Professional Development
-Mentoring
-Responsive Problem Solving

INSTRUCTIONAL COACHING-ON SITE PROFESSIONAL DEVELOPMENT

LITERACY RICH CLASSROOMS

LEADS TO
INCREASED STUDENT ACHIEVEMENT
(adapted from Brown et al., (2006). *Promising In-roads: Year One Report of the Pennsylvania High School Coaching Initiative*)

Figure 3. A diagram to illustrate the conceptual framework to conduct the research.

CHAPTER III

METHODOLOGY

Introduction

This chapter describes the methodology and rationale for conducting this study related to the Pennsylvania High School Coaching Initiative (PAHSCI). The conceptual framework related to the research questions is presented along with its relationship to the rationale for the study, the setting, identification of schools, and the selection of participants. Information relative to the validity and reliability of the research and interview questions is presented. Data analysis strategies and research methodology are discussed.

I chose a narrative approach because in this initiative leadership does not rest alone on one level. There is a distributed focus on leadership. The purpose of this study is to understand the factors that contributed to or challenged the conditions for the PAHSCI to be a sustainable high school reform initiative and to determine the relationship between instructional coaching, teacher change, and student achievement. The research indicates that the platform to guide this study holds that change is related to a leadership commitment that fosters progressive communication and collaboration and has specific leadership goals needed to achieve sustainability. The primary research question to guide this study is: How did the Pennsylvania High School Coaching Initiative influence the change of teachers' instructional practices and student achievement within the organizational structure of a high achieving high school?

Additional research questions to guide the study are:

1. What factors contributed to the implementation of the PAHSCI Theory of Change?

2. What factors challenged the implementation of the PAHSCI Theory of Change?

3. What evidence exists in the narrative analysis that identifies the contributing and challenging factors to the sustainability of the PAHSCI?

4. What characteristics are displayed at this improving high school that demonstrates whether the PAHSCI is a sustainable high school reform effort that can serve as a model for other high schools in the Commonwealth?

5. What are the characteristics of the increased quality of work that students produced?

The goals of the Pennsylvania High School Coaching Initiative are to improve student performance at the participating high schools, build capacity throughout the Commonwealth for the expansion of the model, and to generate a research base that will inform the development of the coaching model and support its refinement and expansion. This qualitative study will generate rich, thick, and descriptive information that will contribute to assessing the PAHSCI goals. Additionally, this study will assist the Pennsylvania Department of Education by exploring the contributing or challenging factors to the PAHSCI being a model for high school reform across the Commonwealth.

The methodology was designed to focus on the information provided by coaches, teachers, and administrators at one participating high school in the PAHSCI that increased its PSSA mathematics and reading achievement scores. This intrinsic case study was designed to tell the story of the informants within this school.

Comparing Qualitative and Quantitative Research

Rigorous research considers the nature of qualitative and quantitative research related to determining the appropriate methodology for this study. Creswell (1998), in describing this concern, concluded that a key determination is made by Ragin (1987).

"Ragin (1987) accurately characterizes a key difference when he mentions that quantitative researchers work with a few variables and many cases, whereas qualitative researchers rely on a few cases and many variables" (p. 15). Qualitative research explores a social or human problem. "The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting" (Creswell, 1998, p. 15). He further indicates that a qualitative study is selected based on the nature of the research questions. Creswell lists many reasons for qualitative research.

> In a qualitative study, the research question often starts with a 'how' or a 'what' so that the initial forays into the topic describe what is going on. Second, a qualitative method is chosen because the topic needs to be 'explored.' The variables cannot be easily identified. Third, a qualitative study is used because of the need to present a 'detailed view' of the topic. Fourth, choose a qualitative approach in order to study the individuals in their natural setting. Fifth, select a qualitative approach because of an interest in writing in literary style. Sixth, use qualitative because of sufficient time and resources to spend on extensive data collection. Seventh, qualitative research has a receptive audience. Eighth, a qualitative approach emphasizes the researcher's role as an 'active learner' who can tell the story from the 'participant's' view rather than as an agent who passes judgment on participants (p. 17-18).

Senge, Kleiner, Roberts, Ross, Roth, and Smith (1999) described the current environment that prevails as we try to measure and assess the influence of the PAHSCI. "One especially challenging and limiting process involves the basic problems of measurement and assessment: How do people judge whether something new is working? Expectations as well as observations influence assessments" (p. 281). Senge continued that:

> Measurement dilemmas cause many otherwise promising initiatives to flounder. Underneath the challenges of assessing progress are deep issues, including some that go beyond any particular organization and its history. In particular, there is a deep belief in Western culture in the legitimacy of quantitative forms of measurement, at the expense of other forms of assessment. This belief system stems from the origins of modern science and the industrial revolution. Quantitative measurements, to be sure, are fundamental to the progress of modern

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life. When businesses rely on quantitative measurements so completely, in isolation from other forms of assessment and observation, they fracture people's natural understanding of the ways that processes work (p. 284).

The researcher attempted to tell the story, make sense of, and interpret the meaning of a high school's improvement of student achievement scores based on their involvement in the PAHSCI.

The primary research question sought to determine "what" occurred and "how" the PAHSCI influenced literacy and mathematics coaches, administrators and teachers. Significant data or themes emerged that otherwise could have been undiscovered if a quantitative methodology was used. In trying to determine how coaches influence themselves, teachers, and administrators, it was reasonable to suggest that the organization was influenced. Therefore, a conceptual framework involving theories of leadership, change, organizational learning, and the characteristics of sustainable reform initiatives provided a platform to examine "what", "how" and "why" this occurred. This design required interacting with the participants in their environment. One school within the Pennsylvania High School Coaching Initiative (PAHSCI) that experienced increased student academic gains was the chosen sample to obtain answers to the research questions. The high school chosen was the high school in the PAHSCI that showed the greatest academic gains. These academic gains were measured by comparing the reading and mathematics 2005 PSSA scores with the PSSA scores of 2006 and 2007. The PAHSCI began in the fall of 2005. The 2005 PSSA scores were not influenced by the PAHSCI. Data was categorized relative to the framework that was established. A qualitative approach to examine the case of this one high school was best suited to

answer the questions of this research study. A case study of this school told the story of its involvement in the PAHSCI.

<center>Rationale for Case Study</center>

Stake (1995) explained that "for the most part, the cases of interest in education and social service are people and programs. Each one is similar to other persons and programs in many ways and unique in many ways. We are interested in them both for their uniqueness and commonality. We seek to understand them. We would like to hear their stories" (p. 1). In addition Creswell (1998) added the comments from Barrett that justify the study of a case. "By heightening awareness and creating dialogue, it is a hope that research can lead to a better understanding of the way things appear to someone else and through that insight lead to improvements in practice (p. 20)" (p. 94).

The Pennsylvania High School Coaching Initiative (PAHSCI) fits the definition of the type of program and people that warranted a case study of their success. The intent of this study was to discover the teachers', coaches', and administrators' perceptions of their experiences. This study involved classifying and categorizing information and searched for emerging themes that contributed to increased student achievement and the potential relationship to the school's involvement in the PAHSCI and its Theory of Change.

Creswell (1998) and Stake (1995) described case study as:

> The focus of a case study may be the uniqueness of the case itself. When the focus is on the uniqueness of the case, the investigation is called an 'intrinsic case study.' When the focus is an issue, and the case is used instrumentally to illustrate an issue the process is called 'instrumental case study' (p. 78-79).

Intrinsic case study was the chosen method for this research. Data collection involved interviews designed to gather rich and thick descriptive information. Focus

group interviews of teachers were organized. Interviews of literacy and mathematics coaches were conducted. Administrators were interviewed to gain insights from their perspective of this initiative. These interviews focused on questions which were designed to get the respondent's perspective of the elements of the PAHSCI Theory of Change. An in-depth analysis identified the patterns, themes, and relationships to determine if there was information related to the points of alignment found in the theories of leadership, change, organizational learning and the characteristics identified in the literature review related to sustainability of this high school reform initiative. This study discovered "how", "what", and "why" teachers changed their practices as a result of their school's involvement in the PAHSCI. This case study enabled the researcher to explore the influence of the PAHSCI Theory of Change on the administrators, literacy coaches, mathematics coaches, and teachers in this high school relative to the:

- Communication within the high school.

- Collaboration within the high school.

- Teacher change of instructional practice within the high school.

- Shared leadership or empowerment of others within the high school.

- The vision of student achievement shared by the respondents.

The story of this high school's experience with its involvement provided valuable insights into ways to improve student achievement and develop the coaching model of professional development for teachers.

<div align="center">Setting</div>

Project 720 is a Pennsylvania Department of Education initiative to improve the education of high school students in the Commonwealth. Governor Edward Rendell,

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with funding provided by the Annenberg Foundation, developed a high school reform initiative termed the Pennsylvania High School Coaching Initiative. This initiative is a crucial component of Pennsylvania's plan, Leading for Learning, to improve student performance. The Annenberg Foundation contributed thirty-one million dollars to place one math coach and one literacy coach for every six hundred students in selected high schools. Twenty-two high schools across the state were selected to participate in this three year program. The PAHSCI program began in August 2005 and continued for the 2006/07 and 2007/08 school years. Additional funding was obtained to continue the coaching initiative at several high schools for the 2008/09 school year. Emerging research indicated that there is a strong correlation between instructional coaching and improved teacher performance when the teacher training is obtained through embedded professional development that utilizes instructional coaches to provide the professional development. In addition, research has emerged that established a positive correlation between teacher performance and student achievement. There is a research gap when attempting to identify the impact or influence of instructional coaches on improving student achievement. The premise was established that if instructional coaching can positively influence the performance of teachers, and excellent teachers are positively correlated to increased student learning, the assumption was made that if coaches were able to influence teachers to improve that then impacts student achievement.

<div align="center">Selection and Identification of the Schools</div>

Student achievement of grade eleven students in a participating PAHSCI school, as measured by the Pennsylvania System of School Assessment (PSSA) test, served as the standard to select a high school to participate in this study. PSSA scores for each

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participating high school for the school year 2004/05 served as the beginning baseline

score to select the high school that demonstrated the greatest gains in math and reading

achievement scores. A chart was used that identified the PAHSCI participating schools

and their 2004/05, 2005/06, and 2006/07 PSSA scores. This chart listed the student

percentage scores for those students who scored in the proficient category for

mathematics and reading. The school that had the greatest gain of proficient scores in

mathematics and reading from 2005 to 2007 was the school invited to participate in this

study (Appendix E). The Pennsylvania Department of Education data base was used to

determine the achieving high school that will serve as the topic for this study.

<p style="text-align:center">Participants</p>

The participants for this study included the instructional coaches, administrators,

and teachers that were employed by the high school with the most improved PSSA

scores. The superintendent of the school with the most significant PSSA score

improvement was contacted seeking the district's consent to conduct research. The

superintendent was provided an overview of the study and a letter explaining the process.

The coaches, teachers, and administrators of the high school were asked to complete an

informed consent form asking for their voluntary participation. They were given an

overview of the study. Administrators, instructional coaches, and teachers consented to

participate in this study. They were given a letter seeking their consent to participate, a

signature page, and a sample of the study. The informed consent letters specified that

participation was voluntary. The participants understood that they could withdraw at any

time by notifying me by phone, letter, or e-mail. Four administrators and four

instructional coaches agreed to be interviewed. Additional focus group interviews were

conducted with two focus groups of teachers. Ten teachers were interviewed in the two focus groups.

<center>Role of the Researcher</center>

Bellwood-Antis High School was a participant in the Pennsylvania High School Coaching Initiative during the time of this study. Bellwood-Antis was not a participant in this study. The researcher's employment at Bellwood-Antis provided the opportunity for him to be deeply involved in this initiative. The researcher had in-depth knowledge of the in-service instruction that coaches, administrators, and teachers were exposed to. The question to be answered was whether the potential bias of the researcher could be controlled. This potential for researcher bias had to be weighed against the opportunity to be deeply engaged in the PAHSCI process. A quantitative approach to this study would have eliminated a concern of bias. The trade off was that the researcher might have missed the opportunity to gather deep, rich, and detailed information about the perceptions of teachers, coaches, and administrators provided by a qualitative study.

Joseph Maxwell (1996), *Qualitative Research Design*, addressed this concern by quoting researcher Allan Peskin:

> The subjectivity that originally I had taken as an affliction, something to bear because it could not be foregone, could, to the contrary be taken as "virtuous". My subjectivity is the basis for the story that I am able to tell. It is a strength on which I build. It makes me who I am as a person and as a researcher, equipping me with the perspectives and insights that shape all that I do as a researcher, from the selection of the topics clear through to the emphasis I make in writing. Seen as virtuous, subjectivity is something to capitalize on rather than to exercise. (Glesne & Peskin, 1992, p. 104), p. 28.

Stake (1995) identified the role of the researcher as "teacher, participant observer, interviewer, reader, story teller, advocate, artist, counselor, evaluator, and consultant"

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(p. 91). This researcher assumed the role of a case researcher acting as an interviewer, interpreter, and story teller. Stake further defined the case researcher as someone who "recognizes and substantiates new meanings" (p. 97). The interpretive researcher has the opportunity to be "an agent of new interpretation and new knowledge" (p. 99). In order to gain new knowledge and interpret the knowledge, the use of focus group interviews with teachers, and individual interviews with administrators and instructional coaches was the chosen method to collect data.

<center>Rationale for Semi-structured Interview Format</center>

Gall, M., Gall, J., and Borg (2003) stated that "questionnaires and interviews are used extensively in educational research to collect data about phenomena that are not directly observable: inner experience, opinions, values, and interests" (p. 222). One rationale for a semi-structured interview format is stated as "… less structured interview formats assume that the individual respondents define the world in unique ways. Your questions thus need to be more open-ended. A less structured alternative is the semi-structured interview" (Merriam, 1998, p. 74). Gall et al. stated:

> The major advantage of interviews is their adaptability. Skilled interviewers can follow up a respondent's answers to obtain more information and clarify vague responses. They can also build trust and rapport with respondents, thus making it possible to obtain information that the individual probably would not reveal by any other data-collection method.

The semi-structured interview was chosen so that coaches, administrators, and teachers could be flexible to explore their beliefs and visions. The beliefs and comments of all the respondents were important to this research to gain an in-depth knowledge to determine "why" this high school was successful, "how" the PAHSCI may have influenced the participants at the high school, and "what" occurred to increase the PSSA scores.

In qualitative research there are steps to follow to insure accuracy when preparing for and conducting the study. Gall et al. (2003) identified eight steps to follow: (1) defining the purpose of the study, (2) selecting a sample, (3) designing the interview format, (4) developing questions, (5) selecting and training interviewers, (6) doing a pilot test, (7) conducting the interviews, and (8) analyzing the interview data (p. 236-237).

Focus group interviews of teachers and key informant interviews with coaches, and administrators were audio recorded and transcribed. Two tape recorders were used to ensure that there was a back up available in the event of equipment failure. Each interviewee was given the opportunity to review and verify the accuracy of the documentation from the interviews. A transcription of each interview was e-mailed to the respective respondent seeking clarification of the accuracy of the interview. Additionally, field notes were kept by the researcher. The Field notes served to document respondent reactions and reflections of the researcher. The use of field notes aided in documenting and organizing the large volume of information related to the research questions. A data collection matrix was used to collect and categorize the transcribed information.

The purpose of this study is to understand the factors that contributed to or challenged the conditions for the PAHSCI to be a sustainable high school reform initiative and to determine the relationship between instructional coaching, teacher change, and student achievement. The research indicates that the platform to guide this study holds that change is related to a leadership commitment that fosters progressive communication and collaboration and has specific leadership goals needed to achieve sustainability. The primary research question to guide this study is: How did the Pennsylvania High School Coaching Initiative influence the change of teachers'

instructional practices and student achievement within the organizational structure of a high achieving high school?

Additional research questions to guide the study are:

1. What factors contributed to the implementation of the PAHSCI Theory of Change?

2. What factors challenged the implementation of the PAHSCI Theory of Change?

3. What evidence exists in the narrative analysis that identifies the contributing and challenging factors to the sustainability of the PAHSCI?

4. What characteristics are displayed at this improving high school that demonstrates whether the PAHSCI is a sustainable high school reform effort that can serve as a model for other high schools in the Commonwealth?

5. What are the characteristics of the increased quality of work that students produced?

The focus group interview questions for the teachers and the key informant questions for the instructional coaches and administrators were aligned with the research questions and the platform to view the PAHSCI Theory of Change. The platform to view the PAHSCI Theory of Change, that was discovered in the literature review, has determined key themes and patterns in the theories of leadership, change, and organizational learning and characteristics of sustainability. The key themes found in the theories were the need for progressive communication, collaboration, empowerment, and vision. The key themes discovered in sustainability research were the need for leadership, reduction of fear and anxiety, appropriate measurement and assessment of the initiative, and the ability to communicate and collaborate.

In addition, the interview questions reflected the perceptions and opinions of the coaches, teachers, and administrators that may or may not correspond with the key points

of alignment and characteristics identified in the literature review. Additional important and significant information was discovered as respondents told their story of how their school increased their PSSA test scores and their involvement with the PAHSCI Theory of Change. The interview questions were designed around the framework of the PAHSCI Theory of Change. The interview questions and follow-up questions as they are related to the research questions are presented. The following interview guide reflected the revisions that were suggested by the panel of experts used to determine the content validity of the interview questions relative to the research questions.

Interview Guide

Focus Group Interview Questions or Key Informant Interview Questions

COACH   TEACHER   ADMINISTRATOR

Introduction: First, let me introduce myself….I am here to find out about your school's story with its involvement in the PAHSCI since August, 2005 until now. This is not an evaluation of you, your school, or any employee of the school. My goal is to accurately tell the story or what occurred in your school with teachers, coaches, and administrators beginning in August, 2005 until now.

Background

a. Name

b. Job title (or role)

c. Chief job responsibilities

d. How long have you worked in education?   In what roles?

AS A RESULT OF YOUR PARTICIPATION IN THE PENNSYLVANIA HIGH SCHOOL COACHING INITIATIVE PLEASE CONSIDER THE INFLUENCE THAT WORKING WITH LITERACY AND MATH COACHES HAD ON YOU AND YOUR SCHOOL.

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How did the Pennsylvania High School Coaching Initiative influence the change of

teachers' instructional practices and student achievement within the organizational

structure of a high achieving high school?

1. Please describe to the best of your ability how your PSSA mathematics and readings

scores improved over the last two years.

2. Who or what was responsible for this?

3. What were the major factors that influenced this change in scores? Please describe.

4. Do you have any specific examples of changes or programs that had a positive impact

on the increase in student scores? Please describe.

5. Describe how teaching and learning are changing in your school right now.

   a. What is the purpose of the change?

   b. What procedures or guidelines are followed?

   c. What is the greatest change you have seen in your teaching and the learning of

   students?

   d. What were the major factors that influenced the change? Please describe.

(A diamond mark represents potential follow-up questions.)

   ♦ Are teachers involved as individuals?

   ♦ How many are involved?

   ♦ Can you give any examples of when you worked with someone else on a project

      or when you were aware of teachers working together?

   ♦ What is the role of the principal?

   ♦ What is the role of the literacy coach-math coach?

Research Question 1

6. What factors contributed to the implementation of the PAHSCI Theory of Change?

Research Question 2

7. What factors challenged the implementation of the PAHSCI Theory of Change

Research Question 3 was answered after the interviews were transcribed.

What evidence exists in the narrative analysis that identifies the contributing and

challenging factors to the sustainability of the PAHSCI?

Research Question 4

What characteristics are displayed at this improving high school that demonstrates the

potential for the PAHSCI to be a sustainable high school reform effort that can serve as a

model for other high schools in the Commonwealth?

8. What can you identify that has contributed to your success and the school's success

from your involvement in the PAHSCI?

    a. Who or what was responsible for that?

    b. Describe how what it was that you identified occurred. Can you give examples?

Was there a process or procedure?

9. What can you identify that has challenged your success and the school's success from

your involvement in the PAHSCI?

    a. Who or what was responsible for that?

    b. How did this occur?

    c.   In what ways was a solution addressed?

10. How do you determine if the PAHSCI is successful?

Research Question 5

What are the characteristics of the increased quality of work that students produce?

11. Please describe any changes that you designed to influence how students produce

quality work.

12. How do students demonstrate their understanding of the content in which they have

been instructed?

Code for Categorizing Responses Related to the PAHSCI Theory of Change

for the Research Questions

District and School Enabling Conditions-*Systems/Structures*
L=Leadership
OI=Infrastructure
C=Momentum for Change
K=Knowledge
Partner Supports-*Systems/Structures/Process*
PF=Professional Development
M=Mentoring
RPS=Responsive Problem Solving
Instructional Coaching as On-Site Professional Development-*Programs/Processes*
SS=Sustained Support from Coaches
LCI=Literacy rich curriculum and instruction
FPD=Facilitates Professional Development
D=Data Analysis
FC=Fosters Collaboration
Literacy Rich Classrooms-*Programs/Processes*
IS=Instructional Strategies
E=Engaged Students
CI=Curriculum and Instruction across content areas

The following categories or themes that indicated characteristics discovered in the theories of leadership, change, and organizational learning, bridged with the research on sustainability assisted in categorizing information from teachers, coaches, and administrators.

Leadership Theory -Change Theory-Organizational   Sustainability
                                    Learning Theory   Characteristics
Points of Alignment
1. Communication   A. Leadership
2. Collaboration   B. Reduce Fear/Anxiety
3. Empowerment   C. Measurement/Assessment
4. Vision   D. Communication/Collaboration

Potential Themes to Analyze Research Results
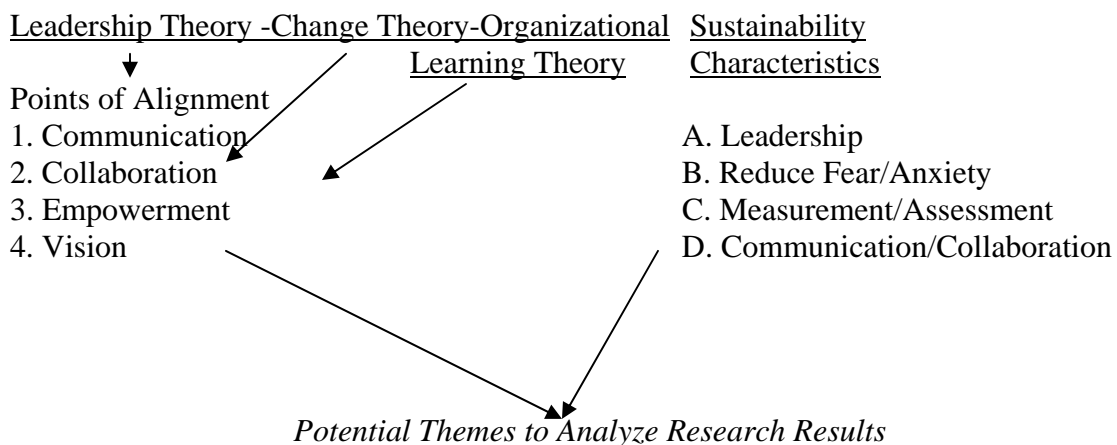
Figure 4. The characteristics discovered in the theories of leadership, change, and organizational learning, and the characteristics of sustainability.

Reliability and Validity of the Interview Instrument

Gall et al., (2003) explained that there are two views regarding the assumptions necessary to assess the validity and reliability of case study findings. "The positivist criteria claim that objective knowledge about the world is possible. Case study researchers, with a positivist view express a somewhat similar view of validity and reliability as quantitative researchers do" (p. 460). Validity can be strengthened by developing a strong "chain of evidence" that presents clear and meaningful links between the research questions, raw data, and findings (p. 460). Internal validity can be established if there is a pattern match between the information obtained from the study and the "theoretical propositions that are tested against the case study data" (p. 461).

"Interpretive criteria that can be utilized to establish validity and reliability of qualitative data involve the concepts of usefulness, contextual completeness, researcher positioning, reporting style, triangulation, member checking, outlier analysis, long-term observation, representative check, and coding check" (p. 461-465).

Huck (2004) defined reliability as consistency and validity as accuracy. He stated "if our instrument produces scores that are valid, then those scores, of necessity must also be reliable. Stated differently accuracy requires consistency" (p. 89). The interview questions asked of teachers, coaches, and administrators need to have a minimum establishment of content validity. "Normally, an instrument's standing with respect to content validity is determined simply by having experts carefully compare the content of the test against a syllabus or outline that specifies the instrument's claimed domain" (p. 89). The opinion of the experts established the validity of the interview questions. The expert's agreement on the validity insured that the instrument was reliable based on necessity. In addition, a content validity check with teachers, coaches, and administrators at Bellwood-Antis High School allowed for input to insure the interview questions aligned with the research questions, thus insuring validity and reliability of the interview questions. The interview questions were re-designed after the content validity check was conducted.

The panel of experts evaluated the relationship of the interview questions to the research questions by rating the relationship. They were asked to give their opinions orally and in writing related to the accuracy of the interview questions. The plan to determine experts included teachers, coaches, and administrators involved with the PAHSCI. The panel of experts included a total of ten professionals. Five experts hold a

doctoral degree. These five people were a retired superintendent, a retired assistant superintendent, a researcher, the executive director for learning and development of Foundations, Inc., and a teacher in the PAHSCI. In addition, the panel of experts included a retired principal, the executive director of PAHSCI, and three instructional coaches currently employed in schools not involved with the school selected for the research site. While I acknowledge the potential for bias due to my experience with these experts; the extensive knowledge and insight offered by these experts and the use of the content validity check at Bellwood-Antis High School insured the validity and reliability of the research instrument.

Content Validity Check

The Bellwood-Antis School District entered the PAHSCI in January 2006. The researcher conducted a content validity check of the research questions and interview questions with focus group interviews of teachers and individual interviews with the two coaches, and the principal in the Bellwood-Antis School District. The results of this validity check determined that revisions needed to be made to the focus group interview questions as they related to the research questions. The content validity check provided a valid and reliable method to begin with a "start list" (Miles and Huberman, 1984).

Verification of the Study

Creswell (1998) explained eight methods that a qualitative researcher can use to verify the research results of this study. The procedures are: triangulation, rich and thick description, member checks, clarifying researcher bias, peer review, negative case analysis, external audits, and prolonged engagement and persistent observation. Creswell recommended that qualitative researchers engage in a minimum of two of the eight

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procedures of verification. Three methods of qualitative research design were utilized to verify the results of the study. The researcher clarified researcher bias, gathered information from multiple sources (triangulation by interviews with teachers, coaches, and administrators), and utilized member checks to validate the research study.

First, the researcher previously described his intense interest in this subject. That is appropriate for qualitative research. He acknowledged that his school is involved in the PAHSCI, and he is an integral member of the leadership team. His involvement in this initiative was viewed as a strength while collecting and analyzing data. The researcher was able to keenly observe and analyze. The rationale to select the school with the greatest improvement in achievement scores over a two year period negated his potential bias. Any potential bias was negated by analyzing the comments of the coaches, administrators, and teachers after they confirmed the accuracy of the interviews conducted at the high school that most improved its achievement scores.

Next, the researcher analyzed the comments of coaches, teachers, and administrators. This narrative analysis sought to identify emerging themes and patterns. The analysis provided a rich and thick descriptive source of information. The plan involved obtaining information from more than one entity (teachers, coaches, and administers) to further assist in the validation of the data. The data was compared to the theoretical framework points of alignment and characteristics relative to sustainability to further validate the information obtained during this study.

Lastly, the researcher used member checks to verify the data. The informants of the study were given the opportunity to clarify interview information to insure the accuracy. Members were given the opportunity to clarify transcription data or add to the

data. A copy of the transcription of the interview was e-mailed to each person who was interviewed. One male science teacher [pseudonym-Jim] asked to withdraw from the study after reading his comments in the transcription of his focus group interview. His request was honored.

<center>Data Analysis</center>

Maxwell (1996) emphasized that the "analysis of collected data is ongoing" (p. 130). The use of a matrix designed to enter narrative data involving teachers, coaches, and administrators provided the starting point. In addition, there was a column in the matrix to record comments. The data from the matrices was analyzed for emerging themes that may or may not be related to the points of alignment of theories and characteristics of sustainability. "In addition, coding is done using codes from a 'start list' (Miles and Huberman, 1984) generated from previous studies" (p. 130). The data was analyzed first from the perspective of the coaches followed by the teachers and administrators. The narratives from each group were analyzed and coded. Themes and patterns identified by each group within each domain provided information that related to the primary research question that sought to understand "how" the PAHSCI may have influenced increased PSSA test scores, teacher instructional change, and the learning within an organization.

<center>Research Site Methodology</center>

When the research site was selected and entry to the site was verified the researcher used vacation days to visit the site to conduct focus group interviews of the teachers and key informant interviews of administrators and coaches. The plan to interview coaches, teachers, and administrators took a total of three days; one day for

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each type of respondent. The researcher arranged for his arrival time to be agreeable to the school. Prior to the actual days of the study he arranged a time to visit the high school and meet with the eighty teachers at a faculty meeting. He gave all teachers, administrators and coaches an overview of the study and a voluntary consent form. Thirty teachers volunteered to be interviewed. The ten teachers selected indicated that on a scale that was developed to indicate their experience working with an instructional coach that they had an average amount of experience. Teachers, administrators, and coaches completed the voluntary consent form and received additional information from the researcher about the confidentiality of the focus group interview process. Coaches, administrators, and teachers met with the researcher separately. This insured that the confidentiality that was necessary for each group to speak honestly was available. Each group appeared to speak truthfully about their beliefs and actions. Each teacher, coach and administrator focus group interview lasted approximately one hour. The fourth day that was planned for the research visit was not needed. All of the interviews were completed within the three day time frame. Once the transcriptions of the interviews were completed the researcher began the "member check" by asking the informants to verify the information. The respondents were e-mailed transcriptions of their interviews. They were then asked to respond if the information was an accurate description of their answers to the interview questions. One male teacher asked that his comments not be included in this study. His request was honored.

<div align="center">Summary</div>

The study of the conversations, collaboration, teacher instructional change, and the leadership provided by coaches, administrators and teachers in a high performing

high school will lead to many stories that need to be told. This study seeks to identify

within an interpretation style of an intrinsic case study "how" and "what" the patterns are

of leadership, communication, collaboration, and empowerment utilized by coaches,

teachers, and administrators that signify the organization has increased its intelligence.

Information was sought as to whether or not the changes that took place meet any of the

criteria related to sustainability. Perkins' (2003) argument was that organizational

intelligence can be recognized by the progressive actions and reactions in conversations,

symbolic conduct, written communication, listening, and collaboration. Fullan's (2005)

model identified eight key elements that must be met for any change within an

educational organization to be sustainable. In addition, these eight elements needed to

interact with each other and not be in isolation from one another. Senge et al., (1999)

explained the complexity of sustainability by addressing three key concepts and how to

address the concerns inherit within those concepts. The research questions reflect this

alignment with organizational learning theory, leadership theory, change theory, coaching

theory, and an organizational intelligence model relative to determining the sustainability

of the success achieved by a high school in the PAHSCI. The rationale for this study and

the research design were described in this chapter relative to the research questions that

guided this endeavor. This research used focus group interviews of teachers and

key informant interviews of coaches and administrators to tell the story of how teachers'

instructional practices were influenced by instructional coaches within one high school

that experienced increased PSSA scores.

CHAPTER IV

DATA AND ANALYSIS

Introduction

This chapter presents emerging themes and supportive data from individual and

group interview sessions with administrators, the teaching staff, and the instructional

coaching team. It then analyzes common concerns and distinctions within these groups.

The comments of these individuals are classified according to the various elements of the

Pennsylvania High School Coaching Initiative (PAHSCI) Theory of Change in an effort

to gain an understanding of how the PAHSCI may have influenced the change of

teachers' instructional practices. The views of administrators, teachers, and instructional

coaches are classified, categorized, and examined for common themes. The presence of

significant themes may suggest that the PAHSCI has the potential to be a sustainable high

school reform initiative.

The purpose of this study is to understand the factors that contributed to or

challenged the conditions for the PAHSCI to be a sustainable high school reform

initiative and to determine the relationship between instructional coaching, changed

teaching practices, and student achievement. The primary research question that guided

this study sought to discover how the PAHSCI influenced the change of teachers'

instructional practices and the student achievement within the organizational structure of

a high achieving high school. What factors contributed to the implementation of the

PAHSCI Theory of Change? What factors challenged the implementation of the PAHSCI

Theory of Change? What evidence exists in the narrative analysis that identifies the

contributing and challenging factors to the sustainability of the PAHSCI? What

characteristics are displayed at this improving high school that demonstrates whether the PAHSCI is a sustainable high school reform effort that can serve as a model for other high schools in the Commonwealth? What are the characteristics of the increased quality of work that students produced? When I examined the quantitative data one high school emerged.

I immediately noticed this high school that improved its mathematics and reading PSSA achievement scores more than any other high school in the PAHSCI when I traveled to its location. I drove to the school to meet the administration and faculty. I noticed homes that varied from well-maintained to modest to dilapidated as I came closer to the school's address. Skeletons of large and closed manufacturing and steel plant buildings were interspersed with newer more modest-sized buildings that were the homes of an emerging small to modest business growth that appeared to be occurring in this city. Suddenly, out of character, I observed my destination. This high school appeared like a castle discovered in a forest. The high school building gleamed with its creamy block exterior which was trimmed with burgundy colored soffit. It had dark blocks serving as an outline of the school. I noticed immediately that there was no graffiti located on the outside of the school. Throughout my visit to this high school, I did not notice any graffiti inside the school. This was the daytime home to nine hundred and ninety students, ninety-two percent of whom were classified as living in poverty. Fifty eight percent of the students were African American, ten percent Hispanic, and twenty eight percent Caucasian. Thirty one percent were special education students and eighteen percent were English as a second language speaking learners. The students displayed the appearance of a unified student body as they were clothed in only red, black, white, gray or khaki colors

that followed the school's uniform policy. What was going on at this school? How did this school make adequate yearly progress? Why was this high school improving its achievement scores when other urban high schools were not improving?

Pseudonyms or job titles are used to identify the respondents. The four administrators who were interviewed separately were the principal (Terry), two assistant principals (Lori and John), and a behavior specialist who served in a role as another assistant principal (Dave). The four instructional coaches who were interviewed individually were a math coach (Buck), a current science coach who previously served as a math coach (Patty), and two literacy coaches (Helen and Marge). Two teacher focus group interviews were conducted in an effort by the researcher to insure teacher comfort and encourage group thinking that would lead to in-depth and honest responses. The first focus group of six teachers was comprised of a reading/English teacher (Diane), an English teacher (June), a special education teacher specializing in English and social studies (Rick), a librarian and English teacher (Kathy), another English teacher (Sue), and a language arts and English teacher (Erik). The second group of four teachers was comprised of a family and consumer science teacher (Gail), a math and social studies teacher (Jim), a science teacher (Kristen), and an English teacher (Lauren). These teachers were selected because they all indicated that they had an average amount of experience working with an instructional coach. They were selected from a group of 30 teachers who volunteered to be interviewed. Teachers who were not selected for interviews indicated that they had minimal experience working with an instructional coach. The following analysis is based on the respondents' answers to the interview questions.

The Context for this Change Initiative

School district and high school conditions for enabling the success of the PAHSCI were addressed through leadership, organizational infrastructure, creating the momentum for change, and developing knowledge. The Annenberg Foundation addressed the need for leadership for high school principals by hiring newly retired superintendents and principals to mentor high school principals. Leadership mentoring for instructional coaches was addressed by the hiring of highly qualified retired mathematics and English teachers. The organizational infrastructure included the use of Pennsylvania Literacy Network courses, offered through the University of Pennsylvania, and the Research for Action design of the PAHSCI Theory of Change as a research and development project. The momentum for change was started by the Pennsylvania Department of Education's desire to improve the achievement of high school students in struggling school districts. The Annenberg Foundation, acting as a catalyst, provided financial support. School district superintendents supported and cooperated with the PAHSCI reform concept. Knowledge was to be obtained while the initiative was underway. Knowledge was provided by leadership mentors and by the attendance and earning of college credits by principals, coaches, and teachers at Pennsylvania Literacy Network (PLN) courses. Partner supports that provided professional development, mentoring, and responsive problem solving worked in conjunction with school district and high school enabling conditions.

Professional development included centralized courses for coaches and administrators that focused on instructional strategies designed around the four lenses of learning. The four lenses of learning are meaning-centered, social, language-based, and

human qualities that involved reflection. Mentoring consisted of leadership and content mentors who provided support for coaches and administrators. Responsive problem solving occurred when Research for Action (RFA) provided information regarding coaching and school needs. The research information was used to design professional development sessions for additional information needed or requested by coaches, teachers, or administrators. Problem solving involved fiscal and budget issues. It involved the hiring of staff. It was also to address any school factors that emerged to insure the support for instructional coaching as on-site professional development.

Coaches' roles were defined under the category of instructional coaching as on-site professional development for teachers. Coaches were to provide support for teachers by locating and modeling the use of literacy-rich instructional materials. Study groups were to be developed to facilitate teachers' professional development. Instructional coaches were expected to learn about and assist the administration and teachers with the use of and analysis of data. Additionally, the goal to foster collaboration among all teachers was important to coaches so that there would be evidence of literacy-rich classrooms.

The goal was for teachers to become more skilled in creating literacy rich classrooms. Teachers were taught to use instructional strategies that engaged all students in their learning. The objective was that collaboration and communication between teachers would increase so that instruction would occur across each content area within a high school curriculum. Consequently it was reasoned that the congruence of strategies designed to use instructional coaches as on-site professional development specialists would lead to increased student achievement. This chapter presents the responses of

administrators, instructional coaches, and teachers to the same interview questions. The

interview questions were designed to discover the process of this collaborative intent and

its impact on student PSSA reading and mathematics scores. The questions served as a

common denominator in this process and were grounded in the Theory of Change

presented by the Pennsylvania High School Coaching Initiative (PAHSCI).

<div align="center">Administrator Responses-District and School Enabling Conditions</div>

School district support and building support for the PAHSCI are described as the

first part of the PAHSCI Theory of Change. These supports are labeled as enabling

conditions and are comprised of leadership, infrastructure, momentum for change, and

the creation of knowledge. The responses of the four administrators to the interview

questions are categorized in relation to the district and school enabling conditions. These

categories are leadership, infrastructure, momentum for change, and the creation of

knowledge.

<div align="center">*Leadership*</div>

The superintendent expressed his support for the PAHSCI and mentioned that his

school districts involvement was "one of many initiatives we are involved in to increase

student achievement. It is one part of the puzzle." There were numerous changes in the

number of principals at this high school. The current principal, Terry, shared the primary

leadership position of this high school with a co-principal. The co-principal was the

administrator that attended Pennsylvania Literacy Network (PLN) classes and shared that

educational responsibility with a central office administrator for attending and learning

about the PAHSCI. Both of these administrators left this school district prior to the end

of the first year of the PAHSCI being started. When Terry assumed the sole leadership

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position as principal, during only his second full year at this high school, he had limited

direct knowledge of the PAHSCI. Additionally, his three assistants who he brought with

him to the school had limited knowledge of the PAHSCI. They were learning about this

new instructional coaching initiative while it was underway and was in its second year.

This high school had five different principals in eight years prior to Terry agreeing to

serve as the principal. The responses of the administrators indicated that their direct

knowledge of the PAHSCI Theory of Change and its impact on the change of teachers'

instructional practices reflected that they were learning about this initiative. They were

trying to support the superintendent's effort. The administrators who were interviewed

were challenged by this new learning while they carried out their many other job

responsibilities.

All four building administrators indicated that the superintendent was the

significant leader who facilitated their involvement in starting this initiative. The

leadership that the superintendent and Terry provided was mentioned by all

administrators. When the administrators were questioned about who was responsible for

the changes started at this high school Terry responded, "As much as I hate to say this,

but I guess it would be the stubborn bull you're looking at." Lori described the leadership

by stating the fact that the principal said, "Hey, I need to restructure my school so it

functions better and teachers are willing to work with one another." John stated, "The

initiatives have come starting from the superintendent because he is a worldly and

knowledgeable guy and again, he's on the cutting edge of ways to get things done." He

further clarified that the principal has so many responsibilities that the support of the

superintendent is extremely important. "Terry is not going to take or doesn't have the

time, or say even the ability, but again you know central administration with support of the board can institute changes." The fourth administrator Dave, who acts more in the role of a disciplinarian, stated numerous times that the discipline and climate of the building had to change before learning could occur. He stated that, "Terry and I worked to improve the climate of this school. When we got here there were fights and near riots in this school. We had to clean up the atmosphere before anything else." Leadership mentors were hired by the PAHSCI to assist principals and coaches. The leadership mentors were often retired superintendents, principals, or teachers. The leadership mentors were not viewed favorably by Terry. He expressed his concern that the leadership mentor was too demanding. It appeared that their meetings would take up too much of the valuable time that Terry had. If Terry had another concern as a building principal and was not able to make a meeting he believed the PAHSCI mentor was upset. It was obvious that this bothered Terry because he believed he was trying to be as supportive of the initiative as he could. He commented:

> The mentors were a negative. That'll be a nice change; not to have them in, you know. We just had a great example last week. They got all huffy-puffy with me because they have this luncheon that we have to go to when they come in. They've been having us work on a book. They gave us a book. They want us to read a book and then they go over all the chapters. Kind of crazy, but that's what these inspectors did. I have two girls that both got 2,000 dollar scholarships from our Rotary Club. It's the same time as their little luncheon. But jeez, they wonder where I'm going. I'm taking two of my students and their families to this luncheon to get their scholarships. They got all bent out of shape because I wasn't there to review the book.

He knew they were just trying to provide the infrastructure, create the momentum for change, and the knowledge that was described in the PAHSCI Theory of Change but he believed they should have been more understanding of his overall job responsibilities.

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Infrastructure

The infrastructure of the PAHSCI was supported by the administrators of the high

school. Teachers were enabled to take classes offered by the Pennsylvania Literacy

Network that awarded them free graduate credits through the University of Pennsylvania.

Teachers took these classes on school days where they would be relieved of their

teaching assignments. They could also take additional classes on Saturdays and some

evenings for free. The administrators indicted they supported the teachers involvement

and wanted them to take PLN classes. Three of the four administrators commented on the

Pennsylvania Literacy Network (PLN) classes as a valuable component of the PAHSCI.

Terry described what he observed:

> The PLN classes, I saw that as successful, because as I walk in the rooms, I see
> teachers using some of those techniques. Again the coaching initiative was a
> factor. Was it a major factor? I don't know. I think the major factor from it was
> from the different teaching strategies like PLN.

> John and Dave's observations provided a way to measure the success of teachers

changing their instructional strategies. John concurred with Terry that the PLN classes

were an important part of the infrastructure of the PAHSCI Theory of Change. He stated:

> I see even the teachers with a lot of experience really latching onto the new
> techniques and actually using them, and again, they feel energized by them, so
> whatever technique it might be, if it's a bell ringer or a ticket out the door or
> different little things, again, I think they're having a lot of fun with it.

Dave believed there could be some benefit to the PLN classes. Dave commented:

> I think, you know maybe, gearing them to take some PLN master classes. That
> may have had an impact on individual teachers themselves in their rooms. They
> offered this in our district as credits. Like 4 ½ free credits during the school day,
> so teachers were getting out five school days a year. That's why they did it. You
> would have anyone doing it, and they were free.

Momentum for Change

The expectation of the superintendent and principal that the school staff and students needed to continually improve their PSSA achievement scores acted as a key catalyst to create the momentum for change in this high school. Comments that related to the change efforts revolved around leadership, the use of data, and the teachers' attendance at Pennsylvania Literacy Network classes as professional development. The factors that were identified by the administrators that contributed to and challenged the teaching staff's changes of their instructional practices are described. Additionally, the challenges to change and the contributing factors to change are identified.

Every administrator mentioned that the superintendent and principal served a key leadership role in establishing that everyone should be accountable for their performance including students, teachers, and administrators. The superintendent stated during my initial interview with him to gain entry into the school district that "I give principals three years to get results. If they don't, then I have to find something else to do with them." The principal, Terry had several comments that provided insight into his leadership style to get the change initiative started.

> You know, my philosophy was that I came in here and said, 'look you've done it like this for five years, and it hasn't worked. So why aren't we looking at different ways of doing things?' You know, these are some of the ways that some of the other buildings I've been at, some of the things I've observed that have worked. Maybe we should be doing this.

He expressed to the staff that he would take the blame if there was failure. He stated to the faculty "look, I don't care what you've done in the past. I don't care how you did it. This is the way we're going to do it, and if we fail, I fail. And if we make it, you make it." He went on to clarify by saying:

I never read the book by Jim Collins. I guess I made reference to it a couple of times last year. As far as that I'm driving a bus and either you're getting on with me or I'm running your ass over. I think that the teachers wanted a change. I think that they kind of knew they were in a rut.

He stressed to the staff the need to engage students in their school work.

I think that's widened the scope of how we educate these kids because we're not the traditional stand in the front of the room and lecture for fifty-six minutes. You know, it's interacting with them. It's a student lead discussion rather than the teacher.

Lori described her support of Terry and her role to create change by commenting,

"Now, I've had to roll up the newspaper and whack people because they're not willing to

change. I have to tell them, 'You're not acting in the best interest of our students.'" She

described the accountability and ownership that is needed if the PAHSCI is to be a

sustainable high school reform initiative. Lori commented:

Well, no one person makes it work. No one idea will make it work. It's a combination of administration, peers, even the students somewhat to make the coaching initiative work. It is the teacher's willingness to change. It is the administration willing to look at additional staffing for support. It's all of it put together and everybody understanding what everybody else's job is. What their responsibilities are and how that will affect them, positively or negatively.

Dave described the impact of the building leadership in the following manner:

It had a lot to do with building management, I believe. We really came in and cleaned up the building, and helped the classroom teacher be able to actually teach. We were getting rid of a lot of the problem students. We were getting them sent to an alternative education program. But building management is huge. Making sure the kids are in the right grade levels is huge.

The way in which the administration addressed an issue that involved the grade

level of students was an example of using data to make decisions.

Terry, Lori, Dave, and John all commented on the need for administrators,

teachers, and students to increase their achievement by increasing their PSSA scores.

The PSSA scores along with data gathered from attendance, grades, discipline, and mock

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PSSA tests given to grade nine and grade ten students provided data that the administrators, coaches, teachers, and guidance counselors examined to try to find correlations that would positively influence instruction. The administration discovered that many of the students who were in the high school for three years had not passed all of their subjects or classes. Therefore, chronologically and by counting the number of years they were in attendance at the high school (three) the students were scheduled to take the PSSA test. Terry made a decision that if a student did not have the credits necessary to be a junior (eleven or twelve) the students would stay in a tenth grade homeroom and would not even be scheduled to take the PSSA test until they passed enough credits. He reasoned that it would be near impossible for a student to pass the PSSA test if they were not able to pass the classes needed to qualify to be a junior in high school. The momentum for change and accountability for teachers was that they should not be socially promoting students if the students were not passing the class. Lori described how this district and high school spent a significant amount of time analyzing attendance and achievement data in an effort to force the students to be accountable for their actions. She said:

> It is the assessment, and the coaches, and how to use the assessment materials and the scores. When we have our department meetings the coaches were with us. When we went through scores, they were integral in helping us to interpret that data and discuss how they could help us or help the teacher tailor their instruction so it would be more effective.

She then gave an example of what she described to a student. "You've missed twenty-four days of school. I will have you come in twenty-four mornings or stay after school twenty-four afternoons to get the information. It is not that teacher's responsibility to hold up the class to educate you." The district created a mock PSSA test for grades nine

and ten and the analysis of the test scores provided another example of how coaches were

used to assist with initiating change. Lori described in further detail how this occurred.

She stated:

> The use of data helped create the momentum for teacher change by helping
> teachers realize that things had to be done differently. You can't do something
> different if there's no rhyme or reason to it. It's not very effective. There has to
> be a reason. Why am I doing this? Why aren't I doing something else? Showing
> the faculty what the students know and do not know; where they're skilled and
> where they are not skilled. Show their weaknesses and strengths.

 The data provided information for the teachers to use to guide their instruction. There

was an issue of accountability being created for a new approach for learning.

Administrators, teachers and students all were on a new pathway toward increasing

student achievement.

Three administrators directly mentioned or defined how the use of the

Pennsylvania Literacy Network provided professional development that was focused on

increasing student engagement and how it impacted the instructional change within this

high school. Terry stated:

> The PLN classes, I saw that as successful. As I walk in the rooms, I see teachers
> using some of those techniques. Again the coaching initiative was a factor. Was it
> a major factor? I don't know. I think the major factor from it was from the
> different teaching strategies like PLN.

Dave believed there was a benefit to the teachers who took the PLN classes. "I

think gearing them to take some PLN master classes. That may have had an impact on

individual teachers themselves in their rooms." In particular he described the benefit of

teachers taking the PLN classes. He declared:

> These PLN strategies are good. That's one thing I'll say. I took one of the PLN
> classes this year to sit in on it. They're offered on Saturdays. So I went and sat in
> on it just to see all these strategies all these teachers, these young teachers are
> learning. I think that is good for all our young teachers, to go in and learn new

strategies to help them with classroom management. I think we're at a point where about eighty-five percent of our teachers have taken at least PLN 1. They're using the strategies. This is good.

John described his observations of the use of the PLN strategies. He noted:

A majority of the teachers have been through the PLN. As you know, it gives everyone a common language and a lot of common strategies so the students aren't fighting with you by saying well, why do you have to do this? It works well that we're all coming, and talking the same kind of language.

The administrators discussed the contributing and challenging factors discovered within the PAHSCI Theory of Change and the need for creating a momentum for change. The instructional coaches were to provide a significant role in helping the PLN classes become translated to the daily classroom instruction.

Instructional coaches and their relationships with administrators and fellow teachers can facilitate or challenge the momentum for change. In this high school the situation was difficult because as stated previously the principal (Terry) was the fifth leader in eight years. When he started at this high school he felt that the co-principals overzealousness created a climate where the role of coaches may not have been viewed positively. Other administrators also were willing to comment on their perceptions of how the role of the instructional coaches was created and how the teacher resistance to change had to be addressed. Two administrators saw many challenges, highlighted by the teachers being resistant to another teacher coaching them. The other two administrators witnessed many ways that coaches facilitated change. Terry asserted:

The teachers [instructional coaches] were selected by the other co-principal that was here when I got here. My guess is they were not what the staff felt were the strong teachers of their particular area. I think it took them awhile to adjust to having those people as coaches; not feeling that they were the strong people in the group. Teachers get concerned about who comes in their room, and who they work with. You know, they may not be friends with the person. If I could summarize quickly that the factors challenging the implementation of the theory

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of change had to do with staff resistance because, you know, here's a new program. Is this the same thing that I have been through before? What is the use of coaching and the selection of the coaches themselves?

Dave had a similar view. He said that he was aware of the teachers not having confidence in the coaches who were selected. He stated, "The coaches that were hired were too young."

John, who has observed many classes, had a different perception. John described coaching as successful because the coaches are teachers from the building or district that knows the environment. He emphasized:

It's a one hundred percent positive thing. Again, as it was rolled out and explained in the first year they [coaches] don't report back to administration. They came in and made it a win-win proposition. These teachers from their own home building have not been evasive. Teachers are pretty protective. I mean, this is their turf, and it's their kids, and we don't want you to come in and try to tell us how to teach to our kids.

Lori commented on the challenges that teachers had to overcome. She did not have any comments regarding the selection of coaches. Lori claimed:

I would say the challenge would be to overcome their predispositions of here is how I teach. Here's how I'm going to teach for the next 20 years, and that'll be good enough. And then when you say, 'Uh-uh. You'll have to transfer, maybe out of state because it's not going to work here anymore. You need to make these changes. We're going to help you make these changes.' Then I tell them if you never try anything new, how do you know if it's going to work or not? And they said, 'Well, what if it doesn't work?' And I say, 'Well, then, you've learned something! It doesn't work with this group. It may work with that group.'

Each administrator did express that the greatest challenge for coaches and administrators was that the teachers were resistant to change. The PAHSCI and the administration received support from the district and the teachers union to continue. That helped overcome the resistance that teachers felt about someone else [an instructional coach] coming into their room. Terry said, "If I could summarize quickly that the factors

challenging the implementation of the theory of change had to do with staff resistance.

Because here's a new program and teachers ask 'is this the same thing as the past?'" Lori

summed up the common view of administrators. She asserted:

> The teachers union collaborated with administrators by intervening with teachers by telling them. 'These folks don't want to deal with 20-30 write-ups from you a day because you can't control your class; because you don't have these students actively engaged in what they're doing.'

Knowledge

The issue of classroom discipline of students or classroom management was

addressed latter on in the school year by the PAHSCI Theory of Action that involved the

organization Research for Action (RFA). Research for Action used periodic surveys to

gain information for future administrator and coach in-service trainings. The surveys that

were used demonstrated how knowledge was obtained and disseminated to teachers while

the initiative was underway. Information that could specifically be placed under the

category of knowledge creation from surveys done by RFA was not identified by

administrators. Comments related to knowledge creation are described in the previous

category labeled as creating momentum for change and later in the next section that

describes partner supports.

Administrator Responses-Partner Supports

The second section of the PAHSCI Theory of Change is partner supports. The

three elements that comprise this component are professional development, mentoring,

and responsive problem solving. The responses of the four administrators to the interview

questions are categorized to determine the significance of the partner supports.

Professional Development

The administrators described, in greatest detail, the area of professional development. The comments revolved around the teachers receiving professional development by attending classes offered by the Pennsylvania Literacy Network (PLN) in cooperation with the University of Pennsylvania. Terry commented, "I think the expectations that the teachers have and that the district has now for these teachers regarding all the professional development they received from the embedded learning courses that they have to take [are important]." He declared:

> The PLN classes, I saw that as successful, because as I walk in the rooms, I see teachers using some of those techniques. The coaching initiative was a factor. The professional development and the opportunity to allow teachers to collaborate with one another were identified as a contribution of the PAHSCI. The PLN classes were very helpful too. We didn't touch a lot on that, but I know that was one of the other things that were very helpful for teachers.

Dave previously described the benefit of teachers taking the PLN classes. He believed the professional development from those classes was the major contribution of PAHSCI. John described his opinions of professional development. "The PLN, there's a number of those courses along with the coaching initiative. The district has also been doing some after school program development in different areas. It sets up a time when teachers can collaborate."

Mentoring

The only administrator to comment on the mentoring element of partner support was the principal Terry. He believed the leadership mentor that was assigned to him and his school was not responsive to his situation. He felt that the mentor expected him to drop everything that he was doing when the mentor arrived. Terry described that even if the PAHSCI is not renewed in his district there is enough support to keep math and

literacy coaches. He is not sure how valuable the mentors were and attributes that to the

PAHSCI model of how to use coaches. He explained:

> There were some issues with the overseeing of the coaches from the district. The mentors can be very demanding, I think. However, with all those things going on with the Pennsylvania Coaching Initiative, the district still wants to keep math and literacy coaches. They [superintendent and central office administrators] believe in that as professional development. So it seems like it's the PAHSCI model that's created some concern.

Responsive Problem Solving

The final element of partner supports involved the responsive problem solving

that was in place to address areas of concern that emerged during the initiative. There was

not any information mentioned by the administrators that addressed how Research for

Action or any other organization was involved at this high school. Administrators did

have information to share about the use of the instructional coaches.

Administrator Responses-On-Site Professional Development

At the very heart of the PAHSCI is the third component of the Theory of Change.

This section examines the roles of the coaches within the theory. This component uses

literacy and mathematics instructional coaches as on-site professional development

specialists so that professional development will be embedded in the daily lives of the

teachers in the building. The goals are for coaches to provide sustained support to

teachers, develop a literacy rich curriculum and instruction, plan professional

development, assist with data analysis, and foster collaboration among the staff. The

responses of the administrators to the interview questions are categorized relative to these

coaching goals.

Two administrators had many positive comments about how the coaches

accomplished these goals. Lori started discussing how coaches supported teachers by

telling how coaches help teachers have the time to observe and support each other.

"Teachers that I was involved with during their prep period, went and asked another

teacher if they could see what she was doing. They wanted to observe one another." She

further explained other roles that she observed as well as the commitment that was

needed to insure success. She noted:

> I would say that everybody's got to be committed to it (PAHSCI). The coaches
> have to be committed to support those teachers. The teachers use coaches as a
> resource. They ask them to come in the classroom and help teach. So, having the
> coach there after bringing materials is important. Sometimes all you need is that
> affirmation of doing the right thing.

Lori continued by clarifying that the coaches:

> Bring in additional material, act as another resource to go to and assist teachers
> who said to them 'If this isn't working out for me, how can I do it differently?'
> Coaches responded to questions from teachers like 'how come this worked out for
> these two classes and fell on its face for this class?' And it happened. It happened.
> It's just having another person to act as a sounding board, another resource to
> provide access to materials. They help with collecting of resources. Coaches are
> not to just to go in there and model a lesson. But also to team teach a lesson when
> using various strategies.

Lori confirmed the need for support for the teachers by the coaches. "For every

positive, there's a negative somewhere lurking in there. I would say that everybody's got

to be committed to it. The coaches have to be committed to support those teachers."

Lori was very positive in her assessment of how she believed the coaches were

received by teachers because of the pressure the school was under. She reasoned:

> I know the teachers were getting frustrated because they were teaching as hard as
> they could teach and nothing was happening. I'm doing everything I can. I'm
> offering tutoring after school, before school. I'm doing everything I can to

intervene for these students and still we're not making the scores that we need to make. Our kids are not passing. I think that whole thing comes back to once they started assessing and seeing what students were close to passing; and assessing the students to see where their needs were they became a little more hopeful, a little enthusiastic. By having the coach there to bring materials sometimes all you need is that affirmation that 'hey, I am doing the right thing'. Coaches helped by either bringing in additional material or by being another resource to go to saying, 'If this isn't working out for me, how can I do it differently? How come this worked out for these two classes and fell on its face for this class?'

She continued with the attitude that she believed the coaches contributed to. Lori explained:

Teachers feel safe. People are willing to talk to one another. What I find also is, if they're unsure, they're willing to ask that question whether it seems elementary or not. But if there's something bothering them, they'll ask the question to clarify in their own mind. It may be simplistic, but it may be a stumbling block for them. In other words, they're pretty safe. They're not being made to look like a fool, like, 'You should've known that.' In fact, that's what you kind of feel around the building, that excitement. I'm trying something new and it's going to be ok.

Literacy Rich Curriculum and Instruction

Coaches were expected to assist teachers with locating, adapting, and modifying classroom materials that were rich in reading and literature content related to the curriculum of the subject they taught. Coaches were expected to demonstrate appropriate instructional strategies and teach instructional strategies to teachers when requested or when they could gain entry to a classroom. In the interview information listed previously there is mention of coaches helping teachers with instruction and with researching materials. The coaches were to be directly involved in fostering the professional development of teachers.

John explained in great detail the positive changes that he has witnessed as a result of the PAHSCI and the work of coaches. John did a significant number of observations of teachers and can describe the changes that he has seen in both teachers

and students. John believes that coaching helps teachers with literacy rich instruction. He declared:

> It's been a good situation. Again, is every technique that the coaches show going to work? Probably not, but again, it's a good venue that we can roll out these different things in a non-offensive atmosphere. If you had a chance to actually observe the teachers, you'd see anywhere from three to five different techniques that the coaches have passed on in say a math classroom. I have seen it in math classrooms, and again, the kids are comfortable with that because they saw it last year when they were a sophomore. They saw it their freshman year. If we're looking at a junior, this is the third year they've seen the same kind of techniques from different teachers. I think that's puts them into a nice comfort zone. The kids are in a good comfort zone, and I think the teachers are because they're using the techniques. I've only seen a couple teachers that have really gone back to the old school of here's my, for example, history curriculum, and I'm going to lecture all period long, without seeing some movements, some different transitions from a small group, to a large group, to a pair share, to a reporting out of the students to the class and to the teachers. There still is a time and a place for a lot of lecture, but we're leaving that. We're really leaving that.

Facilitates Professional Development

Regarding the issue of the coaches fostering professional development, the principal, Terry had some comments about professional development. He was not always sure how much the coaches organized themselves. He was not sure how much the professional development for teachers was actually planned and organized by the coaches. The professional development and the opportunity to allow teachers to collaborate with one another was identified and attributed to the PAHSCI initiative. John stated that, "If we can improve instruction, and that's what the coaching initiative can and does, again, it's a great support for the administration that observes and evaluates."

Data Analysis

Lori commented about instructional coaches and their help with the goals of the administration and the need to analyze data. "They help with data collecting. They help with collecting of resources." They help with "the assessment and how to use the

assessment materials and the scores of the students." The coaches present the data so that teachers "tailor their instruction so it would be more effective."

<div align="center">*Fosters Collaboration*</div>

Terry described an impact that the PAHSCI had on the development of collaboration. He believed that some credit may be given to the coaches for contributing to an environment. He commented:

> I'll even get e-mails now from teachers, who'll say, 'Hey I'm doing this cool thing if you want to stop in for a couple minutes.' That's a big change too. It's that we try to be as collaborating as we can.

Lori believed that coaches contributed to the communication between themselves and teachers and between teachers. She confirmed:

> I do know they talk to one another. They share a lot of ideas. Sometimes the best things take place over coffee or a lunch. They're (coaches) available to teachers to go in and model a lesson and also to team teach a lesson when using various strategies.

<div align="center">Administrator Responses-Literacy Rich Classrooms</div>

The last section of the PAHSCI Theory of Change is literacy rich classrooms. The goal is to foster the development of literature use in the classrooms by teachers and students. The accomplishment of the goal is recognized when teachers use instructional strategies that engage students in learning and curriculum and instruction is shared across content areas. The responses of the four administrators to the interview questions are categorized and reported relative to their observations of literacy rich classrooms.

Three of the four administrators commented on various parts of this section. There was not any information located about curriculum and instruction spreading across content areas. Student engagement was the area most often mentioned by administrators.

Terry and John commented on observing an increase in students engaged in class. Terry said:

> I think that has widened the scope of how we educate these kids because we're not the traditional stand in the front of the room and lecture for fifty-six minutes. It's interacting with them. It's a student lead discussion rather than the teacher. One fact is that when I walk into the classroom I see kids engaged. Kids are participating. I think that's the big thing. I think last year when I first started that you didn't even have fifty percent of the room that was engaged.

> John contended:

> You know, the most important part or component of the evaluation rubrics that we have through the teacher evaluation model is engaging students. Sure, there are checklists for environment and how the classroom looks and what the desk arrangement is. But, most important is just keeping or getting the kids engaged. I think the shift has been from one hundred percent lecture to getting kids engaged in a variety of ways.

The increase in student engagement was accomplished by using varied instructional strategies.

Terry described one example of what he noticed students doing different. He commented, "Students will do an I-search (PLN strategy) on a topic they're working on. It expands them globally to everything they're looking at." Lori described her philosophy as a teacher and how the PAHSCI fit into that belief system. She stated, "I believe the students have to write, so I would do, before it was popular, higher order questions. Explain, compare and contrast, and describe." She has observed teachers make a change in their teaching. She confirmed:

> I'm seeing the higher order questions. In fact, home work has changed. Instead of doing these ten things, you answer one question completely. You think it out. You cite where you found the information to back your position up, and I think that's a plus.

Administrator Responses-Increased Student Achievement

The final section of the PAHSCI is increased student achievement. The elements

of the PAHSCI Theory of Change are designed to accomplish the goal of increasing

student achievement. This high school demonstrated the most significant increase in

mathematics and reading scores on the PSSA exam. It is equally important to examine

the administrator statements to explore what other factors are present that could have

resulted in the increase of student scores. The responses of the four administrators to the

interview questions are categorized to identify the factors that contributed to an increase

in student PSSA scores.

The administrators identified several factors that they believed contributed to the

increase in student achievement. The first factor that was described was that students had

to have the correct number of credits to be placed into grade eleven in order to be eligible

to take the test. Other examples mentioned by the administrators were the use of a mock

or practice PSSA test that was given to grade nine, ten, and eleven students, controlling

the testing environment, aligning the testing standards and anchors to the curriculum,

tutoring, and communicating to the students and faculty what needed to be accomplished.

Terry responded:

> We looked at the courses the students had taken and how many credits they had.
> That first year there were probably eleven or twelve students who had no business
> taking the test. We looked at data from the mock PSSA tests to align our
> curriculum with the state standards. They used to test everyone in the cafeteria at
> the same time. So, we changed that to small groups with 10-12 students in a class.
> We put two teachers in the room and told them to 'put your running shoes on.' I
> didn't want them sitting down while the students took the test. I wanted the
> teachers to be up and monitoring the students.
>
> I think the other thing that we have is we've done a great job at what we call our
> district assessments. We're assessing our curriculum. We're making sure that our

teachers are conveying the information to these kids, the curriculum guides, the pacing guides.

Dave focused his response on how hard he and Terry worked prior to and during the start of the PAHSCI. He pointed out:

> We made sure that you had the right students taking the test in eleventh grade, based on credits. Terry and I really got involved and started studying each student. What grade each student should be in. We really firmly believe that if our cut-off is five and one-half credits to move into tenth grade, you're in the ninth grade if you don't have it. The last couple years we got over three hundred ninth grade students in our building, and you know what? Those kids I see a big difference in. They know where they're at right now. Where, I think in years past, everybody was just moving along in line. They're in high school for four years, people get to a senior year and those students thought they would be graduating. Well, they were like in shock when they weren't graduating. Terry and I worked the last two summers on really making sure every student that would come in our building was going to be in the correct grade level. We went from checking every student's schedule card, you know, one thousand one hundred schedule cards, and made sure they were in the correct grade level. So those students know too. You might be in your third year, and we may have some third year ninth graders here. You may be in your third year of high school, but you have one credit to your name.

Dave further described other initiatives that were started at this school to improve the PSSA scores that were not a result of the schools involvement in the PAHSCI. He clarified:

> In school tutoring, pulling them out of their elective classes and getting them tutored. Identifying students by going through the numbers on our mock PSSA tests are huge, which Terry and I developed. They weren't doing that before. We do mock PSSA tests for the eleventh graders in November. Get the scores back within a couple of days. Then we can identify those students that need to be tutored. We will take that lump of kids and make sure they were getting tutored every day. We pull them out of their elective classes so they would be getting tutored from the end of November, December, and January. We have another mock PSSA in January. Get another good idea and make a hard push through February and the first part of March going into the PSSA; making sure those kids are getting tutoring during the school day. I'm not sending kids into tutoring that on the mock PSSA, scored seventy percent or higher on either the math or the reading. I don't even want them in the tutoring rooms. Yet, those kids want the tutoring too. For those kids, if you want the tutoring, you come after school for the tutoring. Then I would identify every regular ed. kid that is on the bubble.

What were the numbers this year? Sixty three and fifty six; so, who was right in that range? Like maybe from fifty six to thirty and then maybe from sixty three to whatever, forty. I would identify those kids, those regular ed. kids that I want them to get tutoring every day. You know, one on one, whatever it is, during the school day.

Other factors are present that could have had as much of an impact on the increase in student PSSA scores as the PAHSCI may have had. Therefore, it becomes important to examine the administrator responses to the interview questions to discover how they determine if the PAHSCI was successful. What changes did the administrators observe that occurred with teachers and students that would allow them to assess or measure if the PAHSCI was successful? Their responses to the interview questions were categorized to answer this question that emerged during the data collection process.

<div align="center">Administrator Measurement and Assessment of PAHSCI</div>

The superintendent stated in his essay that "measured progress continues to be the primary benchmark for (his) public schools." Terry, the principal stated numerous times that holding everyone including himself accountable was important. He added that "this school district as well as other school districts were evaluated and graded upon whether our school made adequate yearly progress (AYP)." Lori identified, "The use of coaches and district assessments and to use the assessment scores as keys to measuring success of the PAHSCI." Dave described in great detail how the district had initiatives underway prior to the coaching initiative to use data. The coaches helped with the data when the initiative was started. These administrators described the use of data and their observations to explain how they are trying to measure achievement.

Terry discussed what he has done to evaluate success. He described:

The big thing that we've done is just doing the walk-through observations. You and I both know we can walk into their classroom and within the first five

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minutes we can tell who's a strong teacher and who needs some additional work. When I walk into the classroom and I see kids engaged, kids participating that's success.

He continued by stating, "The PLN classes, I saw that as successful. As I walk in the rooms, I see teachers using some of those techniques." He identified the student use of writing as measurable. Terry emphasized:

These kids typically lost their points in the open-ended questions. How they're writing and how they're communicating on what they actually did was one of the major factors that helped this building kind of get over this hump that we always talk about. That was something here which never made sense. This building always made proficiency in writing, but when it came down to taking the test in the reading and math portion of it, they weren't making it, which never really made a lot of sense looking at all the data.

Lori confirmed what Terry described when she was asked about measuring success. "I would say it's mostly the assessment and the coaches and how to use the assessment materials and the scores."

John stated, "If we can improve instruction, and that's what the coaching initiative can and does it's a great support for the administration that observes and evaluates." John's observations have provided a way to measure the success of teachers changing their instructional strategies. He clarified the purpose is to:

pass the PSSA. That is the number one target. But just keeping or getting the kids engaged is most important. I think the shift has been from one hundred percent lecture to getting kids engaged in a variety of ways. I've certainly seen a lot of very good quality teaching. A lot of it is self-reflective. Again, administrators can't be in the classroom even a small percentage. So, I think the teachers have really taken the initiative to become better teachers, again to teach with rigor.

When John was asked the question, are you seeing any new things that show they've learned? He responded:

most definitely. I've seen with the different activities versus the full-time lecture that the students will use different devices to, even in one class period, to learn a certain objective. With the input of information from the teacher, reading the text,

through technology, through the internet, through our own library, their resources, the students will turn around something, even in a class period, and then be able to present it to the class even if it is only under a minute. I can see it in their (the students) eyes. The teacher can informally assess what the student has learned in a day and a weekly manner. Again assessment, I don't think I've really touched on it or talked about it but the district is certainly trying our best to teach these kids. But without assessment, has there been any learning? I think the district does a very good job district wide through a nine-week exam for both English literacy and mathematics and also science now.

Lori was asked how to measure and assess the PAHSCI and its influence on teachers. She stated, "Oh, from the feedback from the teachers." They told her, "You know, when I had a question I was able to go and talk it out with someone else [a coach]. I was able to have it looked at or tweaked if I was going to do something." Lori felt that while many teachers feel safe and trust is occurring between teachers, coaches, and administrators, "Sometimes they're still afraid of the administration." The involvement of administrators is one catalyst for developing the communication and collaboration between coaches and teachers who are nervous about changing their instructional strategies.

This analysis now examines the data from the responses of the instructional coaches.

Instructional Coach Responses-District and School Enabling Conditions

School district support and building support for the PAHSCI are described as the first part of the PAHSCI Theory of Change. These supports are labeled as enabling conditions and are comprised of leadership, infrastructure, momentum for change, and the creation of knowledge. The responses of the four instructional coaches to the interview questions are categorized in relation to the district and school enabling

conditions. The categories are leadership, infrastructure, momentum for change, and the creation of knowledge.

<p style="text-align:center">Leadership</p>

The interviews of the four instructional coaches indicated that leadership came from several sources. They did not identify any of the sources as coming from the PAHSCI. Their belief was that the leadership for implementing the PAHSCI came from the principal, the previous co-principal, the previous director of high schools, department heads, and themselves.

Patty identified the principal as a main reason the student achievement scores increased. She also mentioned the PAHSCI. Patty stated:

> First and the main influence on raising those scores was our principal. When Terry came here he changed a lot of things. We were kind of in a state of flux for several years because we had five different principals in eight years.
>
> Well when Terry came in he grabbed the bull by the horns so to speak. He lay down some strict rules, some strict expectations; some very clear expectations for students and teachers and really used those to drive the tempo of the building to really get a good handle on things. I mean his philosophy when he first got here was 'If you don't want to learn, you're gone.' On top of that, we had the High School Coaching Initiative was beginning two years ago, this is the third year.

A mathematics coach Buck described varied leadership at length. When he was asked how teachers and students were empowered or how ownership was created he responded that he felt as a math coach he provided leadership to make that happen. He identified the leadership of the principal as very important. Also, curriculum leaders gave significance to leadership being distributed in various ways. Buck responded:

> Mathematics wise, we've been very lucky with (the head of the math department). She is currently our K-12 math coordinator. When I first started working with her, she was just a math facilitator and was technically the same as a teacher. She's been basically one of the spearheads math-wise. (The director of high schools), he started a lot of the steps to where we are now. He was head of the high schools.

He was in charge of overseeing curriculum and how everything was for the high school.

I'd like to say myself, but I mean, I think I've been lucky to be a part of it, but a lot of it comes from leadership too. I've been here in this building when there's been bad leadership, and I've been here when there's been good leadership, and you know, Terry's been good. I've been here before when we've had a good leader. But leadership has been one of the major factors. It's not even just with-in the building, it's also with our curriculum coordinators. As a coach, I've tried to show some leadership. Actually my first two years, basically my first two years as a coach, I was also kind of the quasi acting department chair because our department chair had to have surgery. Then the next year everyone kind of looked at me, and technically he was, but everyone still came to me as the department chair. Terry came in with-in that second half of that, was kind of taking over as the dean and has been in charge ever since. He's really kind of, you know, got everything going well. He is the leader when it comes down to it. He needs to be involved with everything to a point. You know, he has to trust the people underneath him to do their job, which I think our principal does very well. But he's also very much involved in what's happening academically and behaviorally. You name it. He has his hands on what's going on. He's willing to be the bad guy if he has to be. But he's also open to listen.

Helen described how the leadership for change started with support from the

district administration. She commented:

I think there was a great influence and support for the initiative It was a 'because we are doing this you need to be doing this sort of thing.' The administrators had put out a letter asking the teachers for a time to come see team teaching or see something new. You could use it as your evaluation time or your observation time if you wanted to. There was kind of like a nudging I guess you would call it. There was support from the top. Please give us a time to come in and a lot of teachers would say, 'Oh yeah, I would like you to come in and see this.' There was an open door between the administrators and the teachers.

Helen was asked who or what was responsible for what was transpiring at her

high school. She said:

I can't really point to a person and say they were responsible for it. I know that the person that was the coordinator or head of the literacy coaching in the district promoted that; using non-fiction text.

Helen clarified the previous co-principal's role. She explained:

She [the co-principal] is not with us any longer but she was the person who was the literacy person with the coaches for year one and year two of the grant. We worked very closely with her on a weekly basis. She was a co-principal in this building and this is my building, so I worked with her very frequently. It may have stemmed from that. I can't put a name to it, but you know we talked about it.

She was asked about the role of the principal. She responded:

The principal should support and promote us. I think they can be one in the same. If the staff knows what the principal is looking for and expects, I think the staff is more willing to promote what needs to be done. If there is a memo or an e-mail coming out from the principal because the principal is on board, I think it makes a world of difference. I am not an evaluator. Everything I do is confidential so I can nudge teachers.

Marge outlined how the leadership that was provided by the co-principal. That person has left the district. She commented:

I would have to say that the set up of the schedule of who's going where for the in-services, [the co-principal] did that. So it's the principal. This is the game plan for in-service and this is where you are going to go. The only people excused from it were special ed. [teachers].

Infrastructure

All four coaches agreed on the magnitude of the professional development that was offered through the Pennsylvania Literacy Network (PLN) as a definite infrastructure item that needed to be in place. The results of the interviews with the four instructional coaches about this important component of the PAHSCI Initiative will be reported through out this chapter. The PLN classes and professional development span all areas of this theory of change model. The comments of two coaches described how the infrastructure was supportive of the PAHSCI. Teachers were encouraged to participate in the PLN classes that were viewed as a valuable infrastructure component.

Patty described the power of professional development that she has been involved with. She clarified:

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I think a lot of it had to do with the coaches and the PLN classes. The teachers
were getting those strategies first hand. I mean that first year when they had Joe
Ginotti teaching; that was all you heard the teachers talking about was how
charismatic he was. They were actually doing things and learning things that they
hadn't before. They had the opportunity. The difference I think with the coaching
initiative is the whole idea of that imbedded professional development. Because
before they would have the professional development days for the district, you'd
sit there for 8 hours. You'd go home and you'd never touch it again. With the
PLN classes and the teachers having that opportunity to get some information, go
back to their classroom for a month or two and try it. Then come back and get
together again and talk about it and have other people in the building that are
going through the same thing and have the opportunity to talk to them. I think that
really made a difference and the more people we could get to take those PLN
classes. I think it really helped.

Helen explained how PAHSCI and coaches influenced professional development.

She described:

I think there was a great influence on support for the initiative and because we are
doing this you need to be doing this…sort of thing. The administrators had put out
a letter asking the teachers for a time to come see team teaching or see something
new. You could use it as your evaluation time or your observation time if you
wanted to. There was kind of like a nudging I guess you would call it; that kind of
support from the top. Please give us a time to come in and a lot of teachers would
say, 'Oh yeah, I would like you to come in and see this.' There was that open door
between the administrators and the teachers. I think too with the initiative, you've
got the idea of study groups and teachers coming together to talk about a common
issue like vocabulary. Once the ball gets rolling I think more people are willing to
attend those events and that will help you with the positive change. Then try
something new with the early adopter [teacher who tried strategies early]. I am
trying to think, because once you would attend the study groups, most of the time
you would walk away with a professional book. You would also get paid the
contractual rate. So I think there were multiple positive feedbacks from an event
like that. Let's say after school or a Saturday. That is definitely a change because
those things on the scale that happened during PAHSCI didn't happen before.

Momentum for Change

The coach's comments were analyzed with regard to how the changes occurred.

In this manner it was determined to what extent the PAHSCI was the catalyst for the

changes that occurred at this school. The coaches had responses to questions that were

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designed to discover what enabling conditions were present for the PAHSCI to begin.

Marge described the district and school enabling conditions that created momentum for

change when she was asked what caused the professional development changes. She

claimed:

> I think it has been growing towards that for a long time. It is kind of like the
> shuttle taking off. It really boosted out when the Pennsylvania High School
> Coaching Initiative started. In this building I think because of always having
> principals who've had the vision that if you are going to be in an urban high
> school you have to be willing to step up to the plate and do what's necessary to be
> successful with our kids. So we have always been moving towards that and I
> would have to say then through coaching and having the ability of a person who
> can actually meet with a teacher individually, it got even more specific.

She had more information about why she believed PAHSCI was successful in her

school and why the district had the right enabling conditions. Marge described:

> I think what stood out in my mind when you were talking about their goal was
> that they were choosing environments that could enable that to happen. I think the
> pro was that we were an environment that was right for being able to enable that
> change to occur because you really have to have people on board who are able to
> see far enough ahead that people can build capacity. People can do certain things
> and be successful. If you don't believe that about your staff and if you don't
> believe that about your students, you are done. So we definitely were at that point
> having gone through visionary cadre [Honors Academy] here ourselves. We were
> definitely at a place that could accept a program to continue that.

The instructional coaches discussed in great detail the challenging and

contributing factors to the PAHSCI being a successful high school reform initiative.

Many of their stories match the comments of the administrators. Patty talked about the

coaches being unclear about their roles during the first year but that the PLN classes were

a big benefit. She then described how her time for coaching can be decreased when she is

asked to take on additional duties other than coaching. She explained that even when

coaches are used for the valuable necessity of data analysis that her role as a coach is

affected. Patty pointed out:

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The coaches will tell you this; they were lost that first year. They really didn't know what to do. But the teachers, the one nice thing was that the teachers had started the PLN class through Penn Literacy Network and that had started the year before Terry came. The second year there was a whole new group of teachers in there so we started to get that push for the teaching strategies.

Terry is always grabbing me saying, 'Do this.' Which is fine and I like doing it. For instance, here is an example. We gave the kids a mock PSSA test for the 9th and 10th graders at the same time that the 11th graders were taking it. Well I finally got all that data together and I am in the process of doing some sort of analysis with that. I've been working with that for almost a week and a half now and that is just in this building. I still have [another high school] to do. I haven't been in a classroom since before break which was in March. Because we had 10 day break at Easter and then the week after that I was at the National Science Teachers Convention for a week. So I came back the first of April and we started the PSSA tests for 2 weeks. I proctored that so I haven't been in a classroom for over a month. I haven't even been to one of the other buildings except to pick up or drop off tests.

When Patty was asked to clarify if she was identifying time and expectations that principals have for her as being a challenge she stated:

Sure, other than being in a classroom and working with a teacher, if that is all I had to do great. I could spend two weeks at this building. Two weeks at that building and it would be great. Make a schedule. But, you know, that doesn't happen. You know best laid plans; that just doesn't happen. I have some data analysis to do. I have to go to a coaching meeting at this building or a meeting at this building. I feel like I spend more time in meetings than anywhere else. It wears you a little thin. You don't get to do what you really need to do. That's the hard part.

She discussed that the greatest challenge was the resistance of the teachers. However, there was some fear and anxiety over what may occur if their district was taken over by the state for not making AYP. The teachers with the most experience still may not have been reached to change their practice. She clarified that of a staff of eighty teachers there are only about ten percent that are still resistant. Confidentiality between the coaches and teachers is important. Patty described:

There was a general feeling that ok if we get taken over by the state what is going to happen to our jobs. It was so unclear of what would happen to everybody else that I think that might have given everybody a little push to say ok lets try

something. Resistance…the biggest one was the teachers, most definitely, they were skeptical. The thing that I remember them stressing that first year was the whole confidentiality issue. The coaches are going to come in and they're not going to tell anybody what is going on in your classroom. Even today there are teachers that still are not receptive to it. I hate to say it but it is mostly those 30 year teachers. They are not going to change and it doesn't matter what you have to say. There is nothing you can do to change me. I am going to hand the kid a worksheet everyday. They are going to watch a movie once a month and that is the end of it. Now I am going to sit behind my desk and grade papers or whatever it is that I do all day and nobody is changing me, one way or another.

Patty based the success of the PAHSCI at this high school on three factors. The funding from the Annenberg Foundation to start the initiative, the use of the PLN classes, and the number of teachers in the high school who took the classes were the three major contributing factors that she identified. She then talked about how the coaches asked their friends who were teachers to help them get started. She mentioned the support of the superintendent and principal were important as a contributing or facilitating factor to implementing the initiative. Patty emphasized:

I think that starts at the top. [The superintendent] is certainly very supportive. He is very willing and open to change. So is the assistant superintendant. They're both always looking for ways to make the district better. The principals, once the principals got on board and with the funding and everything; then the whole coaching thing just took off. The teachers were quite resistant at the beginning. They weren't real sure. 'Oh this person is going to come in and look at me'. I think they looked at this as more evaluative than they did as supportive. They were a little leery at first, just like they tell you. The coaches picked their friends and said, 'Hey come on. Let me come in and show you how to do this. Let me come in and try this. Let me do this and that.' It really did catch on. I can walk into pretty much any science classroom in the district and they are like, 'Hey come on in.'

Buck, a mathematics coach identified mentors, outside money, resources, and a lack of direction as challenges that he observed. He acknowledged the PAHSCI as providing the resources. Buck observed:

Well, let me put it this way. When I was told about this job, right off the bat, it was this. You know, we came into it thinking kind of this way. That it was, you

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know, we're going to do what we can so we can get the grant, so we can get the people in the position to hopefully make change. But at the same time, we're going to do what we need to do for our district above all else. And that was our philosophy. So if I look at it, yeah, what was great with what they did, they gave us the resources to put the people in place to really try and make some change. We had some ideas of what we wanted to do, but we didn't have the means of putting people in the positions to do it at the time. The support, I think some of the strategies they gave us. That stuff was great. It comes into play, and yes, I was the person who stood up and said, the last day, 'can someone just tell me what my job's going to be?' Cause no one could at that point in time. So, we stumbled very hard to figure out what our role was and who we were, and how we were going to do it. And in a sense, at that point, we did our own research on coaching and stuff like that to really figure out a lot of things. You know, mentors were good to a point. But a lot of times they come in with great ideas and they're gone. I never felt like I got a lot of help from them. It's been more what we've been able to do here. The outside component was very good because it gave us the means to do what we needed to do, but then we stepped up ourselves and did a lot of it ourselves.

Helen, a literacy coach explained that the teacher's attendance at PLN classes was

a positive experience in her school. She asserted:

At the beginning of this school year for the first half of this semester, we had professional development sessions offered at the three schools where people could attend no matter what school they were going to. And for me to be the facilitator of those sessions and to sit in a room here at [this high school] after school in the wintertime in [the town] with teachers from all three high schools and I am sure if you don't know the distance but that was a big step. Teachers were willing to leave their site and come to another site to talk about teaching and learning was important. That was a big step. That may be a part too of the PLN courses when they were offered in district they were offered in each high school they would rotate sessions. So maybe that helped people to be more comfortable. I don't know. But that was a big step in our school district; to have people willing to come after school.

She mentioned that a challenge involved clarifying the role of the coach.

"Especially that first year when we were like, 'Ok, what are we doing? What was my

job? What's your job? What are you doing?' The challenge was not quite being a teacher

and not quite being an administrator." She suggested that the mentors and the PAHSCI

model of using mentors to support coaches was a valuable contribution to her success.

Helen believed:

 I am so glad that the mentors were part of the grant. The foundation's mentors [for the coaches] were important. What would happen is that you would feel very comfortable saying whatever was on your mind to your mentor. No way is it going to get back to your principals or your teachers. It wasn't going to effect your evaluation. You could just release that whatever it was that you were worried about or thinking about and they would always have other ways of thinking about it or looking at the situation. Support for us [coaches] came from part of that PAHSCI support model. That was a smart move.

Helen felt there were times when the mentors asked an awful lot like reading and

reporting out on the chapters of a book but "the flipside was what we got in return."

In addition to role clarification she identified other challenges that were related to space

and communication. She noted:

How are you going to reach me if you need to get a hold of me? Where am I going to put all of my stuff? I know that sounds kind of small and minute but when it comes to happiness of your staff having that every year is always a concern. 'Where am I going to be? Are you going to pack me up again?' I think that communication is another challenge.

Helen was asked what was it that has challenged your success or your school's

success from your involvement with PAHSCI. She responded, "It is leadership change.

We had variations of assistant principals, principals, and downtown central office

administration. But I think whenever that happens, that challenges the momentum." She

explained that with the administrative changes that occurred there was some anxiety for

her as a coach. Helen asserted:

It [administration changes] happens and you don't know the vice principal. That's a whole other challenge. Who's doing your evaluations? Do they understand all the things that PAHSCI is asking so that when they are evaluating the teachers they are holding them accountable? Administrators don't sit in on every PLN course. It is just something they don't have time for. So, how do we as coaches inform the administrator so they know what to look for? Or not just look for but also to praise and support if they see it.

Marge identified changes in leadership [principals] and the apprehension that

coaches felt in a new role as challenges to the success of the PAHSCI. She described:

> When it started there was a team of people who were on board with it and
> involved with it. As the three years went on we had three different configurations
> of principals. We had different people jump off. We had other assistant principals
> who were not assigned to it [PAHSCI] assigned to it [PAHSCI]. Then those
> assistant principals who were with it were unassigned. We had a career and tech
> person who was on it in the beginning and then wasn't on it. So, what became a
> road block, not a road block but a challenge was that you had the initial people
> who have been with it for three years and then you had people come on even last
> year. I am not just talking here. I am talking within the three high schools. People
> came on it and said 'Well, it is going to be done this way.' That is not the mind
> set that we have been working with. So, that can be a challenge.

> I guess an important story to tell you would be that right before it started in June,
> it was May, it was around May 28th, it was right around Memorial weekend and
> [co-principal] basically came around and said 'Hey, I have an opportunity for
> you.' She is standing in my classroom and it is a week before we're closing
> school and I am packing up basically. She said, 'I would like you to be a coach
> and this is basically what it is and what's going on over the summer.' She said,
> 'You will have to go to Lancaster for a week'. Anyway, I didn't say yes to it.
> Then we were called to a meeting two days later and [the director of secondary
> schools] told us what it was. All of the coaches are in the board room downtown
> and they all said yes; twenty minute presentation. Questions were not totally
> answered; all of them said yes except for three of us. By the time we got back to
> the school on Tuesday from Memorial Day weekend, myself and a couple other
> coaches had an e-mail from the [director of secondary school] and it said, 'We
> really need you to do this and I am guaranteeing you that you will get your
> classroom back and your schedule back basically.' We were still reluctant to do it.
> It was just kind of funny that you were really being pulled out of your comfort
> zone to do it. So, I think what enabled it was that you did have people willing to
> take that leadership role because it is a difficult place to be a coach. You are in the
> middle of hell.

> It is a challenge. I found in that first year of coaching that I was no longer invited
> to 'Lady's Night Out.' You are seen as someone who is in a leadership role
> because you are no longer a teacher.

> Ok, how are we going to roll out coaching in this district? People can go in, shut
> the door and teach. Now all of a sudden, how are they going to want to invite us
> into their classroom? We don't want to make it cumbersome. We don't want to
> make it unduly awful. We really did have an eye on picking strategies that were

easy to institute. They would see positive, quick success, and it would be like 'ok, yes, we can do this.'

Marge discussed the role of the co-principal who she referred to as the facilitator. While she recognized the strengths of this person as a planner she commented on her being unduly demanding and trying to gain information that violated the confidentiality that there needed to be between coaches and teachers. This is similar to how the principal, Terry, described what he had to deal with that involved the co-principal. She emphasized:

> What was not foreseen is that if you are going to pick coaches, they have to be able to get along. They have to be respected. Some of the challenges I think were that there were times when the facilitator was trying to extract information from teachers who had worked with coaches. It became this situation at times when [the co-principal] said, 'Oh, I heard this. Oh, I heard that.' It is supposed to be confidential. The whole confidentiality thing became challenging at times because of your principal trying to extract information from people.
>
> She [co-principal] sent this form out to every teacher that said, 'Please, if you were in a PLN class, you had to teach a lesson using a strategy and you had to invite her in to see it.' That's an accountability piece and they did it and I think there was a lot of that. The mandatory attitude of 'if you are going to go to a PLN course and we are going to pay for it or whatever. It's free. Let's see how you are changing your instructional practices.' She did that to a point of people getting turned off and I think that is what he [Terry] rebelled against.

There were also times when Marge stated that the personalities of teachers and coaches didn't match and "some of the teachers didn't want to work with some of the coaches." She clarified that she has been made aware of a situation where a coach was involved with a teacher in the following scenario:

> We have a coach in another building who has become a coach that had a belief that as an English teacher, you are going to use the developmental writing folder. You are going to do this. She has really taken on the role of a principal which she is not. And a lot of the teachers there in that English department have e-mailed me like 'can you come over and work with me?' I'm like, 'I can't. I am not allowed.' If you had somebody who thoroughly understood that role as a coach to be that you are not going in and intimidating someone and saying, 'This is how you are

going to teach *How to Kill a Mockingbird*.' That challenge of personality, I think, is always going to be a factor.

Additional challenges that were identified by Marge had to deal with principals

asking coaches to fulfill other duties. She noted:

If you could write the perfect coaching job that would really benefit the district, it would be to remove the coach from the confines of a specific principal and just be free to work with teachers. I have talked to him about this at length and he said 'Do it'. I would like to not do any of this other stuff that we do. That is just horrible in taking up time with writing curriculum and proctoring tests.

Marge talked about and described how hard the co-principal and all of the English

coaches worked to make the PAHSCI successful. She asserted:

All of the coaches in this district who were chosen for the literacy side of it were English teachers. They are strong English teachers. One of the things that made us successful was the reigning/pulling in of those people. Even though we were all successful English teachers I think we all had a little different paradigm of how we each thought about teaching English or even reading in general. One of the beneficial things was that we met in the library here. Even the coaches from [the two other high schools] met in the library every day, all day and we put together a coaching binder. We chose the reading strategies for beginning, during, and after reading. We chose materials that we wanted to put out there for writing instruction and the classroom engagement model. We put together a mission statement for our coaching binder. We spent our first two months of that first year, not really doing anything as far as going into classrooms or any of that. We basically organized ourselves and trained everyone so that we would have a common way of looking at what we were going to do as coaches. I think that if we had not done that, in hind sight, looking back, we could have had people going out there with their own mindset of how they wanted it to go. Even though you had that PAHSCI framework of how you were supposed to be a coach, within this district we had to have our own mission and our own way of rolling out coaching. I think that one thing about [the co-principal] was that she was very methodical about that; sometimes to our disgruntlement. She did carefully plan. She had in-services with just the English teachers across the district, and talked about coaching and writing and how that was going to play out. So I think just the organization of ourselves and how we were going to be literacy coaches at the School District level: that was very important. Through that book, we were able to say we are not going to overwhelm teachers by throwing out fifteen different before reading strategies. We are going to pick six or seven. This is what we are going to do and we're going to work on these. I think that if coaching went into sustainability mode, that is something that we should revisit. 'Ok, we have done

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this for three years. Now what is our mission? Now what is our goal? How's it going to look at this point?'

Our successes were really great that first year. I would have to attribute that to a couple things. One is that we were definitely changing the culture of this building by having coaches, period. Also, each coach has different strengths.

Knowledge

The issue of classroom discipline of students or classroom management was addressed latter on in the school year by the PAHSCI Theory of Action that involved the organization Research for Action (RFA). Research for Action used periodic surveys to gain information for future administrator and coach in-service trainings. The surveys that were used demonstrated how knowledge was obtained and disseminated to teachers while the initiative was underway. This element of the PAHSCI Theory of Change described as knowledge creation overlaps with professional development. The coaches only made superficial comments that could be identified as knowledge creation. Knowledge creation is covered in the categories of creating a momentum for change and latter in this study in the professional development section.

Instructional Coach Responses-Partner Supports

The second component of the PAHSCI Theory of Change is partner supports. The three elements embedded within this area are professional development, mentoring, and responsive problem solving. The responses of the four instructional coaches to the interview questions are categorized to determine if the partner supports are provided.

Professional Development

The responses of the four coaches regarding the area of professional development were thorough. Helen and Marge described in great detail their experiences with

professional development. As stated earlier, there were significant opportunities for the

answers of the coaches to be categorized in various areas of the PASCHI Theory of

Change. The responses of the two additional coaches, Buck and Patty were included in

the previous section where comments about professional development were listed in the

category of creating momentum for change.

Helen had a thorough answer to a question that asked what contributed to the

PAHSCI being implemented. She described many elements of the Theory of Change

including PLN training that lead to her leading in house training, teamwork, weekly

meetings, relying on each other and collaborating that lead to team teaching. She

described:

> I'd have to say in my own learning it has to be, first of all, very good training.
> Excellent training from PLN, research based strategies, and that I am going to
> take that and turn it around into training in house. For example, the first year of
> the initiative, I would say we spent everyday of the first six weeks where the
> [sister high school] would come to our high school and we would work with the
> co-principal. We came out with a game plan. These are the strategies that we are
> going to implement in our district to the best of our ability. We are going to train
> and we started to develop ways we were going to train. The second thing is
> teamwork. We had weekly meetings that kept us all together even though literacy
> coaches were in different buildings. In the first year, I did float, mainly by request
> to different buildings pretty much just by request. The second year of the grant I
> floated very little and it was finally decided that I stay at this high school all day.
> We could kind of troubleshoot. What's working for you? Is this working? How
> are you guys doing this professionally? We had that element of teamwork. You
> could get your questions answered. You knew you had someone to go to. There
> was that collaboration among each other. There was the training. I don't know if
> the staff realizes it but we were walking the talk so to speak. We were working in
> a collaborative environment. We were turning around and saying, 'I never thought
> of it like this. Thanks to you, now I am going to think about it like this.' Then we
> were turning around and saying, 'Well, team teach with me and let me be in your
> classroom.'

Marge quickly described how the professional development initiated by PAHSCI

had an impact on the teachers changing their instructional practices. She stated:

I think that they [teachers] improved because a lot more teachers had reading instruction on how to interject reading strategies to the text that they were reading. There were a lot more professional development opportunities in those first two years. We [coaches] would do just PD. It was mandatory PD because social studies and English were paired together. Then science and the related subjects were paired together. So they would come to 'before reading strategies' for example and maybe pick two sessions. So maybe do 'before reading strategies' for two hours. Then they would go to another session for two hours like 'during reading strategies' or 'after reading strategies.' I think in those first two years, teachers who had never taught with a reading strategy before, were doing it. Even if they only picked one or two that they felt comfortable, they did stick with it. I do see it still today that they are using them. For example, 'Raft' became huge for reading.

She was encouraged to talk about what 'Raft' stood for. Marge clarified:

A RAFT folder is where the acronym stands for Role Audience Format Topic. We taught teachers how to either do specific ones where they chose either who the role was or the audience was. For example, it could be a soldier writing a letter to home, the audience. The format would be the letter of course and then the topic would be the teacher's choice of specifically the content. Then we also taught them some perimeters for RAFTs that would be to use three quotes from the text in MLA format. That way it is a little more specific in the rubric for grading purposes. Other social studies teachers also went with the journal format. A soldier perhaps would be journaling through an event like World War II or Vietnam.

Marge was asked if she could identify the greatest change that she had seen in the teaching and learning of students. She was very enthusiastic as she related her insight to her previous background in business. She described the use of professional development in the PAHSCI.

The incredible increase of PD was the biggest change. If you went back to before coaching, we had a lot of professional development in this building with teachers. I think that since coaching and even since not being able to pay teachers, when they get Act 48, there still has been many different opportunities for PD and across the district for PD. I was in business before I came into teaching and I often thought when I got into teaching that I was surprised how people aren't always trained. It is like you get a degree and you go into teaching and you get your twenty-four credits above that and some people do and some people are done. They are done for good. So, I think that job imbedded PD is just so much better than having you go somewhere. There was PD. You were learning technology. You were learning student engagement. There was professional

development that meant something. It was in your building and it was for what you thought it should be. What you thought teachers in your building needed.

Patty very quickly identified that the teachers being trained in professional development by the Pennsylvania Literacy Network was as a measure of the influence of PAHSCI. She pointed out:

> The first thing that popped into my head is the amount of teachers in this building that have taken advantage of the PLN training. You are looking at probably at least half the staff. All the English people, all the math people, and now this year, the third year, all the science people. There is a smattering of others in between so you have covered almost all four subjects. The major subject teachers have some exposure to the PLN training.

Mentoring

As reported earlier, where challenges and contributing factors were discussed in the section on creating a momentum for change, three coaches commented about mentors. Helen believed that her mentor was there for her to confide in and ask for assistance. She was thankful for the mentor. Helen, Buck, and Patty stated that there were times when the mentors asked the coaches to do too much reading of a book and reporting out on what they learned. They did not think that was valuable. They felt they had to attend too many meetings that were too long in length when they could have been doing more productive assignments.

Responsive Problem Solving

Marge had a response that can be categorized as responsive problem solving that coaches were involved with. She commented on the responsive problem solving of PAHSCI and how coaches acted as on-site specialists when they used data to support teachers. "As coaches we send out surveys and say, 'Ok, this is what we have to offer and

there is a line for other. What do you want?' By the end of year two, that other line was always classroom management." She continued with:

> Looking at the module of why our scores increased, I think it is because we have moved away from this vague district wide thing called PD; where people who aren't even in the classroom created them to coaches who are in the classroom. We see where the need is and we survey the people and say 'what do you need to be successful?' So I think if I had to name one thing it would be the best opportunities for PD across the district. You know, going across buildings for the first time ever. It is being allowed to invite people from other schools to your PD. When we are out, people who say, 'Oh, I don't want to go to this coach's PD but I want to come to yours.' Having that opportunity is great.

Buck provided an example of responsive problem solving accomplished within PAHSCI. The issue was that the mathematics coaches often felt slighted at the beginning because the initiative was literacy based. He stated:

> I guess I'd say a lot of the strategies have been very helpful. It's been a pain in the butt trying to get them to relate to mathematics as much as possible. We have been able to do that to a point. It was helpful once they gave us some mathematical help, at the end of year two. But overall, the strategies have been big because it gave us, I guess, tools, or kind of like things to come in with. You know what I mean? They gave us ammunition to come in with the teacher and say, 'Here, try this.' It gave us a carrot I guess you could say. Then we were able to try and coach change from them. Which I think is big.

Instructional Coach Responses-On-Site Professional Development

The third component of the Theory of Change uses literacy and mathematics instructional coaches as on-site professional development specialists so that professional development will be embedded in the daily lives of the teachers in the building. The goals are for coaches to provide sustained support to teachers, develop a literacy rich curriculum and instruction, plan professional development, assist with data analysis, and foster collaboration among the staff. The responses of the instructional coaches to the interview questions are categorized relative to these coaching goals.

Sustained Support

Two coaches made comments that described how they provided support for

teachers. During our interview Marge talked about how leadership from the principal

along with the sustained support from the coaches led to accountability. She suggested:

> I don't think it is a specific program. I think that what I have learned in three
> years and I have heard Terry articulate this well. It is that your program has to
> include specific pieces and the pieces are that the principal makes teachers
> accountable to do what they are instructed to do through professional
> development. Teachers become vested because like for instance through
> coaching, their efforts are validated because the coach can see. I have seen this
> with specific teachers where they say, 'Wow Marge, I have really improved and
> have you seen an improvement?' I will say, 'Yes I have.' Because I have seen
> people become more confident in how they do their agendas or how they roll out
> what they do in class. They frame the learning for the student and yes, I have seen
> that. So if you would call it a program, I can't say a specific program. I would say
> that the program is a lot of pieces that have to be present. It is the principal that is
> the leadership for the accountability. It is teachers who feel vested as a sense of
> community. Then it is students who understand that the more engaged they are,
> that they know how to do it and they have lived success through it that makes
> them more engaged.

Patty clarified the role that coaches have when they offer sustained support to

teachers within the PAHSCI Theory of Change relative to on-site professional

development. She explained:

> Well now you know you've got that coach you can turn to. You have so many
> resources in the building because, again, there are so many teachers who have
> been trained with PLN strategies. The new teachers are great because they're up
> on all this stuff you know. We've got all kinds of supports for the teachers to
> really go out and do that. The coaches can really help those teachers do that
> because you know the teachers never have enough time to do everything they
> want to do. So the coach can go out and look for resources. They can go out and
> look for strategies. They can do all sorts of things to really help the teachers be
> successful.

Literacy Rich Curriculum and Instruction

The two literacy coaches, Helen and Marge discussed literacy. They had powerful

stories to share that explained how they grew in their roles as coaches. They shared their

observations:

> That was a ground-breaking moment when we were all thinking the same
> strategies. We were thinking about 'do nows'. We were thinking about
> 'knowledge rating'. We were thinking about 'word splash.' We were thinking
> about how we were going to implement the training within the buildings. Then we
> would go back to the building and train. I think that is important why change
> developed. It allowed us to have an ample amount of resources. We had PLN. We
> had Joe Ginotti and Winnivere Somer [PLN instructors]. We had each other. We
> had the training and the leadership from [the previous co-principal] to say these
> are some of the things that she has researched that she likes. That, I think is
> important.

> So I think what happened through those first two years was that teachers
> definitely chose a couple reading strategies that they had never really used before
> or knew about and they used them. The kids became very familiar with them to
> the point that 'oh we're doing another RAFT today or we're doing this…' I would
> rather have that situation than a teacher just teaching here's your chapter with an
> assignment on the board. Here's your chapter, read it and answer questions on
> page two hundred. That would be it. Just from my visits to different classes I
> could see that there wasn't any discussion about that so you could literally go
> through a whole text book, 'read chapter eight here are the questions, read
> through it and answer them'; and no discussion about those questions. So you're
> really missing the part of the student taking on the persona of whatever it is that
> they are reading.

> In the area of curriculum and instruction Helen stated:

> We try to pick articles that are in that time period; non-fiction pieces that they
> would have been studying about. We started that last year but we have stepped
> that up this year, trying to get more content pieces into social studies so that kids
> will become more familiar. The cool thing is that we can now do that in other
> high schools. We can take that sample [literacy rich classroom use of fictional
> text] and do it other places. That works well too.

Facilitates Professional Development

Marge described how she has seen an improvement in collegiality, powerful

conversations and school culture that have occurred because of coaches leading study

groups and facilitating professional development with teachers. She reported:

> Often times in PD I find myself just sitting there and letting the teachers speak to each other because sometimes they can say things like, 'Look, you have to talk in the language of the kids, or you're not going to get them.' I said, 'At one point you have to get back to academic language because if you don't you are never modeling for them the language of academia.' The teacher went on to say, 'No, you have to stay in their slang language or you lose them.' I said, 'There has to be a middle ground.' Basically, this one mainstream English teacher confronted him and said, 'It is because all of you guys that stay in that regular language, that kid language, that they don't ever have the academic modeling of good language. Then when the kids come up to mainstream classes it's not good. They never had to deal at that level.' So, I think the interesting thing about coaching, just like a classroom teacher, is that I tell teachers I try to get them to the point where they are facilitating the learning in the classroom. They have designed a lesson and they are facilitating what's happening. It is not chaos, it is planned. As a coach you do that too. You facilitate what you want to happen and then you let it play out and see how it goes. I think the collegial nature of the culture that has changed in the building, when they get together in study groups, is that the teachers are able to discuss things with each other that they are not able to discuss at faculty meetings. You have an opportunity to tell your peer, 'Look, you are not teaching up to snuff, you need to do XYZ.' That's not coming from me. That's not coming from an administrator. I think that has been interesting to watch how that plays out and sometimes those conversations are teachers who have given up. You are in an urban setting and they have given up on what the goals of urban education are. So in that setting of book study or article study, you have their fellow teachers there saying, 'You know what, I am teaching my ass off next to you and here you are, letting the students watch TV or do whatever.' Those conversations have taken place. And that wouldn't happen anywhere else.

Marge discussed her efforts to get collaboration to occur. She declared:

> As a coach, I have learned that collaboration is not just getting teachers to collaborate. It is me too. I was a classroom teacher. I am very used to operating on automatic pilot myself. So it has been difficult for me even to get to that collaboration mode. I realize that is not my strength because I am used to my own room. But I learned as a coach that I am not as good as other people with regard to having the answers for differentiated instruction. When people have a specific request and I go to [another coach] and say, 'What do you think?' She will come up with ten things. That is what she does. So when you say that we are able to get

to a teacher's individual needs we really are. Within our coaching staff, people have different expertise.

She commented on the often difficult role of the coach and how it is a challenge to communicate. Marge contended:

I am sorry, coaches being in that middle ground of hell presents the challenges that can stop this initiative. You put coaches in the position where they're not administrators and they do not have the authority to mandate things. We are constantly selling, bribing, or cajoling and begging.

She gave an example of how the hard work of coaches to communicate, collaborate and foster understanding with teachers can be very rewarding. She described a scenario with a secondary female English teacher who was in her mid-fifties:

She was insulted that she had to teach reading strategies to our students. I had heard this a long time ago. It was a management thing. You let people complain for about thirty seconds and then you stop them. I let her go for about two minutes because she was pretty angry. And then I said, 'Ok, time out.' And I basically said to her, 'You came to the school district as a teacher.' And she was also hired as a tutor. So she was not only just a secondary English teacher she was also a secondary English tutor. She was getting kids who were really struggling and I said, 'Look, if you don't like this job, you might want to look to the county schools for a position. Because if you don't like working with this clientele of students we have, it is not your place because it is a bad fit.' And so, on her insistence, that she shouldn't have to teach reading skills, I gave her a book. It was *I Read it but I Don't Get it* by Chris Tovaney. I said, 'I want you to look through this book and come back when you're done.' She read most of it that night and the next morning, she shot me an e-mail and that e-mail said, 'I'm really sorry. I acted like an idiot.' She said something to the affect of, 'I was off-base yesterday.' So I think that is something that speaks to the affect of having coaches because we are people who are not removed from the classroom to the point of we don't want to hear it. We can be there to intervene in situations where teachers are just at their wits' end.

Data Analysis

Buck mentioned a system was in place to provide data for teachers to use that was prior to PAHSCI. He mentioned:

The software is what allows us to create the tests in exam view. We then write the question and the answer and then we put an anchor that it relates to. It is

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scored and the reports are given back to teachers and given to the principals. Anyone who would want those reports can see them.

Helen explained how she has been involved in data collection. She described that she knew of:

> a colleague's effort to go to each of those schools to keep an Excel spreadsheet. To keep all of that data to see 'well, are they doing better or are they not doing better?' The district writing assessment is something that was far into place before PAHSCI. But what you have is the literacy coaches being key components of that district writing assessment. They are the ones that then give it out to the teachers and collect it back. If they need to go back into the classroom to do a revision workshop they can. So that was an existing district piece that the coaches have been able to use to support student writing. For example, we did an article on Ida-Tar Bill. This would have been in U.S. 2. We did an article, an open ended question, and scored them. We reported the scores back to the teacher and had the students go through sort of like a 'here's the rubric, here's my results.'

Fosters Collaboration

Helen clarified how coaches have fostered collaboration between teachers and coaches and teachers and teachers. She explained:

> If I try something in my classroom and it doesn't work I can go grab Marge [coach] or I can grab Buck [coach] and I can ask them. I think that helps. I have teachers who were maybe a late adopter or a midstream adopter of a new strategy who might be willing if the teacher teaching next door is doing it.

Patty described how she and the other coaches are working hard to change teachers' instructional practices by increasing the communication and collaboration with teachers. She stated one objective of the PAHSCI and how it is being accomplished:

> I think the biggest change is that we are trying to get teachers to move away from that 'sage on the stage' mode of teaching to the 'guide on side'. You know the more cooperative learning strategies. We are getting those strategies out to the teachers. I just read an article this morning…it is so funny…and it said that two-thirds of teachers that are in-serviced now didn't learn all of those strategies that the new teachers have and that coaching is trying to help promote. So, those were the people. Those middle of the road people with eight, ten, twelve years experience were the ones at first that were the most receptive to the coaches. I think other than the new teachers. And getting those strategies out to them and working with them and helping them implement them. I mean the kids now know

we're going to do a 'Do Now'. We're going to do a 'Jigsaw'. The kids know what those are. Whereas before you know you did some of those in your classroom and it was an isolated incident. Now, it doesn't matter if you go to a social studies class, science class, or a math class they know those things and they know how to do them. I think we are moving more towards that cooperative learning. I think that is helping. The teachers are working more together. There are actually conversations about teaching in the hallways between teachers, which you didn't hear before. You walk into the room and close the door and that was it. The only thing you talked to another teacher about was that rotten kid in your third period. Now, they are actually talking about teaching and about, 'Well how can I do this better?' They're working together and they're talking across disciplines and within disciplines to each other about teaching. That is awesome.

She mentioned what she has noticed about communication and collaboration. She stated:

They have been through it [PLN] and have some idea of the collaboration and the cooperative learning and the strategies and that sort of thing. That has helped and that is not something that you just throw away. You know, once you get into the habit of using that and see what it can do for you; I think that the teachers that do use it have seen a change.

Patty also described how she has observed communication, collaboration and the

use of a common language in the classes.

I think the more we let them do the whole cooperative learning and allow them to speak to each other. I think the more we let them and encourage them to work together to come up with an answer we are getting kids with a little deeper of an understanding. You are getting one kid explaining to another and I mean it is just like a teacher. If you can teach it you know it. I mean maybe you don't know it until you teach it and maybe you don't know what you don't know until you explain it to somebody else. I think that would be the best evidence of whether or not they know it because if they can explain it to somebody else then they got it. The 'Do Nows' at the beginning and the 'Pair Shares' show that if they can talk about it and they can explain it they're thinking.

The math coach, Buck described that:

We work together and try to come up with strategies that work for them. The staff itself has just been phenomenal. One of the other things that helped out a lot is communication. Not just in our building, but in our district, getting teachers to be able to talk at [high school 1] to [high school 2] to teachers at [high school 3]. We've been getting those teachers together to share ideas and suggestions. Those types of things have just been big. And our staff here shares everything with each other. It's not, lock my door and I'm out doing my own thing. They [teachers] are very much open. You can come into almost any math teacher's room at any time.

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Instructional Coach Responses-Literacy Rich Classrooms

The last component of the PAHSCI Theory of Change is literacy rich classrooms.

The goal is to foster the development of literature use in the classrooms by teachers and

students. The accomplishment of the goal is recognized when teachers use instructional

strategies that engage students in learning and curriculum and instruction is shared across

content areas. The responses of the four instructional coaches to the interview questions

are categorized and reported relative to their observations of literacy rich classrooms. The

modeling, team teaching, collaborating and communicating that occurred is designed to

lead to literacy rich classrooms that would then translate into higher student achievement

test scores.

Two of the four coaches described how they observed the impact of teachers

using literature within their classes. Not surprising was the fact that these two were the

literacy coaches. Helen commented that:

> We always focus on student engagement and trying to get them to think and be
> more hands on with what they were doing in their social studies classes. I
> definitely know that we have had a focus on open ended answers to questions and
> how students attack an open-ended question when they see one.

Helen discussed two observations that she had that she believed are related to literacy

rich classrooms that occurred due to PAHSCI. The co-principal, who has since left the

building, was the person who enabled the teachers to purchase novels for use in their

classes. She asserted:

> Something that sticks out is noticing teacher's flexibility and how they seat their
> students. A lot of teachers at [this high school], I believe this was last school year
> when [the co-principal] had some moneys available to her, allowed Social Studies
> content teachers to buy novels and pieces of non-fiction for their classroom. So
> they had access to that. You had a couple of teachers who really said, 'Yeah, give
> me a class set of books on Malcolm X.'

She worked with a special education literacy coach. Their work and the work of the special education teacher lead to the use of open ended questions for students to respond to in social studies and science. She explained:

> Now, I just did this open ended at my high school. We are going to take a look at how you are doing. Then, also couple that with the special education literacy coach that had folks designing open ended questions to be done in classrooms to get those kids ready to take the test. What ended up happening was that those open end questions that they designed were used in social studies. So you had multiple opportunities for kids in social studies and in science. That wasn't a result of me but that was an effort of another literacy coach saying, 'We need to get kids comfortable. We need to get them comfortable in the content area with the non-fiction.' I think that's been how we have used non-fiction tests to match the curriculum and address reading comprehension.

Marge had a thorough description about literacy rich classrooms. She mentioned the impact that a writing program had on the use of instructional strategies by the teacher. This use of the writing program increased the engagement of the students in their learning. She stated:

> I would have to say that it was in those two years there was a lot of emphasis on writing across the curriculum. There was an emphasis on the John Collins writing program and using "ticket out the door" and questions that were a Type 2 type of writing. You had a lot more kids who were used to doing Type 1 and 2 writing. In some English classes, I would not be surprised if some of those kids actually knew that a 'do now' is a type 1. I think when you have got to the point where kids know the names of the tools for learning they are learning to learn. When you get to the point where it has become so common place that kids even understand what is happening within the building, like their teacher is going to PLN classes and says, 'Hey we are going to try this strategy that I learned on Saturday.' I think it is when you get kids involved in their own learning and how they are learning. I would attribute the score increase to the fact that you have students and teachers invested. I think if you have just one of those pieces, it is not going to fly. It is not going to increase scores the way it did here.

Instructional Coach Responses-Increased Student Achievement

The final section of the PAHSCI is increased student achievement. The components of the PAHSCI Theory of Change are designed to accomplish the goal of

increasing student achievement. It is equally important to examine the statements of the

instructional coaches to explore what other factors are present that could have resulted in

the increase of student scores. The responses of the four coaches to the interview

questions are categorized to identify the factors that contributed to an increase in student

PSSA scores.

The coaches identified several factors that contributed to the increase in student

achievement. Patty mentioned the Honors Academy and that it had an impact on

increasing the PSSA scores. She explained:

> The Honors Academy started 4 years ago. Actually, I was one of the first. I was
> the first science teacher for the Honors Academy. We realized we were losing all
> of the best students from our area around [this high school] to Collegiate
> Academy. We tried to develop a program to offer an alternative for those students
> who may not have gotten into Collegiate Academy or chose not to go there. But
> we realized finally that we were losing the best students to Collegiate Academy.
> We figured if we could offer them an alternative program that was more rigorous
> than what the average student would take we could attract some of those students
> and eventually raise our scores. I think that is part of what happened.

Marge also noted that the Honors Academy that she had been a part of prior to the

PAHSCI was a factor in the success of the students increasing their achievement scores.

Buck responded to the question if you could narrow it down to any major factors

that influenced the achievement scores what would it be? He described:

> I would say communication. Communication was one of the biggest things. And
> it's communication amongst the teachers; communication amongst the faculty and
> the administration. It's communication across the board through subjects and
> communication with the students. Everyone knows what needs to be done.
> Everyone's kind of on the same page, which has been good. In my position, I'm
> kind of one of the people that facilitates that communication.

Helen was asked what would be a major factor that had the student scores

increase over the two years. She responded:

I would have to say our district assessments. I have to say that the district assessments are coded to the anchors and when the tests are scored, the teachers get a report back showing how the students are doing on those anchors. If the teachers know how the students in the room are doing on those anchors I think it allows them to focus their instruction. This is what was promoted.

Other factors were present that could have had as much of an impact on the increase in student PSSA scores as the PAHSCI may have had. Therefore, it became important to examine the instructional coaches responses to the interview questions to discover how they determined if the PAHSCI was successful. What changes did the coaches observe that occurred with teachers and students that would allow them to assess or measure if the PAHSCI was successful? Their responses to the interview questions were categorized to answer this question that emerged during the data collection process.

Instructional Coach Measurement and Assessment of PAHSCI

Patty, who has experience as a science teacher described how she would measure success of the PAHSCI. She commented:

Being a science teacher, I would look for some proof. I would look for improvement in the students' test scores. I would like to see some evidence from teachers that says yes the kids are doing better or yes this is helping; whereas you know maybe a little before and after snapshot. The bad thing is again being the science teacher, you are comparing one group of students to a different group of students at the same level and statistically you can't do that. But overall to say that yes the PAHSCI has been the number one thing to improve the test scores. No you can't say that. Has it had an impact? Absolutely! Has it helped? Absolutely! But is it the number one reason, I don't think so.

I think just getting the teachers to learn a little bit more about learning; about how kids learn; to think a little bit more about their teaching; to be willing to change. I think that has made a big impact on the kids because that is what we are doing. That's what we are looking to change. We're looking to improve student achievement. They say the teacher is the number one impact on student achievement. If we can help the teachers be better teachers then let us do it. I think that the teachers are really buying into the whole idea of imbedded professional development. The whole idea of having someone in the building that they can turn to, even if it is just to vent sometimes about something that happened in their classroom or how to approach a class. Maybe not so much as

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they have learned different teaching strategies. I know I have worked with a lot of teachers this year on classroom management. That's kind of my thing. Other than being a science teacher my thing is classroom management. I have been working with not just the science teachers either but teachers in other disciplines that have been having some classroom management issues.

She was asked to describe any changes that she designed or saw a teacher design

to influence how students produce quality work. She responded:

I think the teachers are starting to get away from worksheets, multiple choice questions and the pencil paper activities where you fill in the blank. You look in a book and fill in the blanks. You go to the end of the chapter and answer the questions. They're trying to design assessments that are helping the students with those higher order thinking skills; where they are synthesizing, evaluating, and justifying their answers. The teachers are really trying to use a variety of assessments. Whether it is project based. Whether it is technology based. Whatever it might be, I think the kids are starting to catch on to the whole idea of having to think. They don't make those connections. I think assessments are starting to help them move in that direction. They are taking this information to see what kinds of things they draw from that. Here's the data. Here's the result. Here's the numbers. You make me a graph. You tell me what you see. That is starting to come about a little bit more. That is really slow. I think the assessment part is behind all of the teaching strategy stuff.

Buck responded to the question of how do we measure or assess the success of the

changes that are occurring in the high school. "We also do a lot of testing with the kids,

with mock PSSA testing and district assessment testing. The kids are comfortable while

they're testing and all those types of things. It's a lot of hard work." The use of mock

PSSA and district assessments could help reduce fear and anxiety for students during the

actual PSSA testing time. Buck discussed the use of pacing guides as a way to insure

equity for all students. He stated:

We are trying to keep everyone kind of similar because we have a big transient population. So if a kid leaves algebra here and goes to [another high school in the district], they're going to pick up relatively in the same spot over there and not miss out on too much.

Helen was then asked how she can determine if the PAHSCI was successful. She

responded:

> I would say when I go to a teacher and I say, 'Can I try this? Would you try this? Would you like to do this together?' And they say, 'Yes'. I think that is one of my first things. Are they willing? Will they let me come into their classroom? Success is when we plan and do some lessons together.

She described how a teacher she worked with saw her students writing scores

increase. Helen shared:

> To have her [the teacher] be proud of herself for being able to raise the scores so high that [the director of the high schools] said something to her, 'You had the highest gain in scores with your students for this school year in writing.' When the teachers can see their scores going up, their district assessments going up, and their students talking about reading and wanting to write and wanting to do what they need. That shows me that there was some success.

> When you can take students who were selected to be in a class because they didn't achieve in middle school and come in here in ninth grade and they can self report to the teacher by the end of being with her for a whole year that, 'Yeah, I can read. Reading is okay.' When you can get those and I know that is not quantitative data, but when you can get students reporting that to the teacher and the teacher reporting that back out as pride in herself and her teaching and in her students, I think that's a success.

Helen was asked if she has been involved in creating assignments that lead to

students doing quality work. She explained how the terminology or language that has

been put into place through PAHSCI has been a way to measure success. She claimed:

> This might be something small. But I love it when I can walk into a classroom and say, 'Ok, the 'Do Now' is' and the kids know it. Maybe I will say, 'Ticket Out the Door' and maybe that particular school doesn't do 'Ticket Out the Door' but the kids understand that they are going to answer a question before class is over. So you have some students knowing the lingo. I think that is a positive sign.

She was asked if she has been involved in or witnessed ways in which students

demonstrate their understanding of the content that was taught. First of all, she said, "I

have to be sad to say this but I think it is still rather basic paper and pencil tests."

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However, she continued that she is starting to see an emergence of various ways to

measure student learning. She stated:

> We have a newly required elective in ninth grade called Freshman Seminar. It is basically to get kids accustomed to high school. It is kind of an advisory class. The social studies teachers teach it in the three buildings. I walked into this one classroom and there were games, projects, posters, and all kinds of things. I know in this building, we have two to four teachers who are always willing to go out on a limb and have the children produce something. They produce a power point, a poster, or read a novel and do something with it. So, there are some places where performance is being used in social studies.

Marge described how she has seen success. "Once you teach them how to do

something like a RAFT. They do that assignment and they are successful because it was

laid out well and they understood it and they can do it. It is a success." Marge continued

to explain how she has observed students succeed. She pointed out:

> Probably eight years ago I read an article, and it is the same article that we got in year one of the coaching initiative. In the article there was one paragraph written by a student and I will never forget it. It said, 'Once we knew how to learn only the content changed.' I think if you pointed to anything that has increased here. It is that the kids know how to learn and only the content changes.

Marge responded to a question about how she can measure the success of the

 PAHSCI. She contributed:

> There are still people who are using those strategies. I think for success I would look at the fact that there have been people who have grown through individualized teacher instruction. There are people who are willing to go to PD and not get paid. That shows a sense of comradeship that didn't exist before.
>
> I think for the success and how to measure it would be that I can walk down the hall and still know who is doing it. And there has been a change in comradeship in this building.

Marge provided numerous examples of ways in which she has observed changes

in teacher's instruction and how students demonstrate their learning. She emphasized:

> I would have to say that in the first two years there was a lot of John Collins writing stuff going on. One great thing about that program is that they are really

able to break it down into parts. You teach a couple of those parts and people get good at that and then it moves on.

I think that quality of student work falls into this whole idea of 'how do you know when they walk out the door that they've learned that day?' I mean a 'ticket out the door' can show you that.

They [students] will build community with you through those notes. They will write two or three of these things about 'what have I learned today?' 'What questions do you have?' They're measuring sticks.

When I think about the quality of student work, I think about "RAFT" letters. They can tell you what that WWII soldier is going through, through the ammunition of the text, through the situations they were living, in the conditions, and the geography. I think about in the hallways; how you used to have all kinds of stuff on my walls. There were linguistic posters and all of that. Now I see graphic organizers of characterizations and science things. There's more of that. I think people have come to this feeling of 'it's ok to display student work in grades nine through twelve.' I am sure there is probably a lot more to that but I think it is just the fact that I see students engaging in text through graphic organizers. I think that science and social studies and English teachers I have worked with that they do use type 1 and 2 [John Collins writing program] more.

There are more teachers using alternative assessment routes than tests. Whereas a teacher before may have just given an end of the unit test that was multiple choice or something like that. I think that the teachers who have taken PLN 1, 2, or 3 and/or have worked with a coach are looking at other ways to assess.
To be able to show that the kids know more, they [teachers] are designing rubrics for presentations. I have seen that kind of engagement. That is where I always coach teachers. You want the kids to be engaged. I guess I am just seeing better ways of assessing than paper pencil tests.

Another example is the storyboards in English classes for what happened through a couple chapters in a novel. A storyboard is where a student basically has to do cartoon strips, if you will, where they are drawing the action and they are highlighting what happened throughout the chapters. I think that can hit more learners in a differentiated manner because not everybody is just a visual reading kind of person, who can extract from that text, everything that they should know. Number one, I learn better when I know I have to present it. And two, they are able to see what the other students are doing and that raises achievement in the class. Some kids have produced videos. In the one English class, the kids had to use technology to create a web blog.

This analysis now examines the data from the responses of the teaching staff.

Teacher Responses-District and School Enabling Conditions

School district support and building support for the PAHSCI are described as the first part of the PAHSCI Theory of Change. These supports are labeled as enabling conditions and are comprised of leadership, infrastructure, momentum for change, and the creation of knowledge. The responses of the teachers to the interview questions are categorized in relation to the district and school enabling conditions. These categories are leadership, infrastructure, momentum for change, and the creation of knowledge.

Leadership

The focus group of teachers indentified the leadership for the coaching initiative originating with the administration of the school district. One response from a teacher was "that would have been the [Superintendent]." All teachers, in unison, referred to the grant writers and other administrators that may have been involved in the grant application. There was a feeling that even though the teachers were not a factor in the origination of the PAHSCI they tried to carry out their responsibilities. Several females responded, "We were just the participants." An unidentified female stated, "The administrators and the people downtown are the ones implementing it. They are writing the grants and wanted us to do this. They wanted us to participate and we did. They are the ones that wanted it, not us." Kathy felt that the administration empowered everyone to take the PLN classes. She commented:

> It was allowing different people to take it [PLN classes]. It was allowing all the core teachers to take it the first round. math and reading took it first. Then the second time, the rest of us got to take it.

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Sue then commented that she felt the co-principal who has since left the building played a leadership role in getting the PAHSCI started. She stated "I would just have to say that [co-principal] was instrumental in getting all of this going." In the second focus group a teacher, Gail, confirmed that the co-principal "was real big in putting a lot of these practices into place. She would say, 'Try these [strategies]. Work on these.' She would give us sheets of examples we could use."

The importance of the principal and how the teachers have had to withstand many changes was identified by Erik as being significant. He stated:

> The principal pretty much sets the tone for the building and I have seen so many changes. We had changes in scheduling and dress code. We have gone from a 4-by-4 schedule to an A-B schedule and from a 7-period day to a 6-period day. It is just unbelievable. But, the principal really has to set the tone and be the leader.

Lauren detailed her experience with Terry. She felt supported by him as the principal. She told him:

> This is what I need to teach. I talked about materials. I talked about the classroom. Terry gave that to me and said 'Well, of course you need that.' My six week assessment scores last year went up every time. Someone did tell me that mine were the only ones to go up each time. I don't know if they meant in the building or throughout the district. The director of high schools [who has since left] came up to me in the hallway when he saw me. He congratulated me and informed me that I had the most impact on student writing achievement. That was when Terry came.

Leadership was responsible for PAHSCI happening. Credit was given, by the teachers to the administration for the opportunity to participate. The teachers expressed that the majority of them were appreciative of the Pennsylvania Literacy Network (PLN) classes and the professional development training that they received.

Infra-Structure

Sue and Diane described infra-structure that has occurred recently within the

school district and at this high school. They described the Classrooms for the Future

Grant (CFF) and Pennsylvania Literacy Network (PLN) classes. They declared:

> Well, so many of our teachers have been given access to laptops, promethean
> boards, technology, and digital cameras. Things that we never had access to in the
> past because we got the Classrooms for the Future (CFF) grant. We have been
> forced to make changes in our classroom. There is no way you could keep on
> going the way you are with that technology in there.

> We have had a lot of professional development opportunities with PLN. The ideas
> are really neat and they work. Some of them really do work. So it is fun. You
> want to use them in your class because they are fun and then when you see in the
> results that they really are working; that is really great motivation to try some
> different ones, to try more.

> Well, the whole PLN thing. That came with the grant and it was the district's
> administrators that got the grant. So many of us have been to the PLN trainings
> that we are doing what our administrators wanted us to do.

Momentum for Change

Erik described that the teachers and students need to continue learning. A female

colleague contributed to his answer by explaining how education and learning are

changing. Their comments were:

> When PLN came along it was nice because it was actually refreshing. Some of the
> things you did and they had a different name on them. It was some new strategies
> and some new tricks in the bag that you could use. Now even with the Classrooms
> for the Future you even have more to do. We want our students to be 21st century
> learners and be ready to go out there and tackle the world as best as they can.

> Learning is no longer just spitting back facts. Learning is applying what you know
> to a wider goal. Just by some of the things we had in the Classrooms for the
> Future grant learning is becoming more projects based. It is teaching the students
> how to get out there into the world and become more productive members of
> global society. Education is trying to move with the times. That is why we are
> changing.

The effort to include special education students in regular education classes was a reason given that teachers need to consider changing their approach to teaching. A female teacher gave the following reason for changes. "Our special education program is going through some changes right now. Because now we have push-ins instead of them [special needs students] all being pulled out." Rick clarified what she meant by pushing in when he explained:

> Pushing in is when special education educators are joining with regular educators in the regular educators' classrooms to service students with IEPs in that classroom. So rather than segregate those students out into one fifteen to thirty student special education social studies class, they are put in with the regular curricular students in a regular education curriculum. We are just there to provide support in terms of accommodating their needs as far as IEPs.

Erik, Rick and Kathy continued with a dialogue about how and why they have changed their instructional approach. Erik said, "When I went to school the teacher lectured." Kathy said the teacher was "the sage on the stage." Rick clarified that, "It is more that you are giving them [students] experiences." Then Kathy summarized the momentum for change was based on "it is student-centered more than teacher-centered." Diane then described that there is a need to change because the current student achievement results aren't where they need to be. She declared:

> I hate to say this, but the past has got to be a catalyst some how. Things aren't happening. You have to find a way to make it happen. So are all of these strategies, all of these techniques somehow being stimulated by the fact that we have to get the kids to produce?

These teachers agreed that they are willing to change their instructional strategies in order to help students increase their achievement. However, they shared that there are numerous challenges to teachers changing their approach to teaching. There was considerable emotion displayed during the focus group interviews that focused on the

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instructional coaches. The teachers admitted that several of their colleagues were not willing to come on board due to the belief that they "have been there and have done that." They felt the majority of the teachers were willing to follow the direction established by the administration. The teachers agreed that some of their colleagues "are not willing and are not doing any of this [PLN strategies]." One of the reasons given for this was that these teachers may "feel threatened by the initiative." A teacher stated that a feeling of the resistant teachers may be, "Don't come into my room and see what I am doing." These feelings are very real for some teachers. The focus group of teachers gave insight into potential reasons for the resistance of their colleagues.

The challenges for change that the focus group of teachers described centered on the instructional coaches. The selection of the coaches, their abilities, and the clarification of the roles of the coaches were described by the respondents. Sue started the discussion by telling how the teachers felt about confidentiality and trust. "Well, they [coaches] were not welcomed with open arms because nobody really understood what their role was. Were they going to go back and tell what was going on in the room? It was a whole trust issue." Additional comments that the teachers mentioned about the coaches were:

> There were some feelings too, as to what end are these people becoming coaches? For my money, there's a handful of coaches or two who are using this as a stepping stone to administrative positions and making the big bucks. They are not really interested in helping somebody who just wants to teach. That chapped a few asses.

> I will be frank. They were just picked. Maybe the people's choice wasn't always somebody that you wanted to come into your classroom. There was a lot of pressure from the administration for us to use the coaches especially when we were initially doing the PLN. Our second year, we had to document how much time we were spending with the coaches and we had to put that down and spend so many hours with a coach.

Well, I have found myself teaching the coach since I have been out there for such a long time. The coach was asking me, 'How did you do this? How did you do that? How did you get this to work?' I found myself being a more experienced person, giving the coach ideas. The coach was very grateful for my ideas and she would just take them and move along. So sometimes, who you pick to be the coach is very important. How they fit with the group and how much they know or don't know is just as important.

I think the coaches really didn't know what their roles were. They really didn't know what coaching was about themselves. And maybe they are learning that.

They were maybe seeing what they were supposed to do, what they could do. There was a whole lot of uneasiness.

If this grant is going to repeat there needs to be qualifications that the coach has. When you hand it to the district they need to know the qualities that your coach has to have. I know that was part of the issue because some of the people who were chosen may not have been the best candidates to do it. And their feelings were hurt.

The teachers have to buy into it. I have seen some of the older teachers saying, 'Yeah, I have heard that before or nah that won't work.' They didn't want to get involved in it right away. Because that is the way we are. You have seen it and been burned. So a lot of it is just trying to get the teachers to buy in. We did get burned that way but maybe we will continue to do it. [Burned meant that confidentiality had been breeched.]

Once you get it going are you going to pull out everything? I have seen that done before and hopefully it is not going to happen, but you are still kind of worried. With all of this technology, are they going to pull my card away from me next year? Are we going to get our laptops next year? That is where, as you are in this district long enough, you are less likely to jump right on the ball. You want to go along with change but I still feel that the district looks at an older teacher that they don't want to change. But really they would like to. So, a lot of times that is why they give these things to a younger teacher. They feel they can control them a little more and they will buy into it right away because they want to be there. That is where I get upset because I have gone through so many changes with moving into this building and I am adaptable. I think you have to be in this profession anymore. You can't be an old goat and do things the way they were done years ago. You really have to change.

Anybody who is a coach should have had classroom management skills and the tenure behind them. They should have been veteran teachers.

The teachers continued with a dialogue between themselves that described that many coaches lacked years of experience. One coach was the student teacher of a current teacher and that yielded a "weird dynamic." A teacher mentioned how the selection of coaches needed to be a union issue so that teachers could "bid" on the job if they thought they were qualified. The issue of personality of the coaches surfaced when one teacher said, "I took PLN classes and I know kind of what coaching is about. I know how it was really supposed to be. I really get along with some coaches in the other buildings. I would rather work with them." The teachers identified challenges for the coaches that were beyond their control and were attributed to the administration using coaches in roles that were not relevant to the coach. Emotion was present during this dialogue that the teachers had with each other. The comments during their discussion began with, "They are being pulled in other directions. Whether or not that is part of what they are supposed to do on the grant, they are being pulled to do other things. That just kind of blows my mind." "Our coaches are doing scheduling." "They shouldn't have to do anything other than coaching." "They were going out to help the counselors of the other school do their scheduling and I am like, that's not their job."

Gail described the importance of the relationship between the coaches and teachers. There was involvement from the teachers union to gather information that involved the PAHSCI. Gail told her story about being invited to a regional collaboration meeting to act as a "rat" to see what was going on. She went with the union vice-president to gain information. She conveyed:

> I was asked by the union last year along with the Vice President of the union to go to one of the Annenberg things where everyone got together. The [former director of high schools] was kidding that I was the rat. He and I were good friends. I was

the rat because I went for the union. We went to Cranberry. I went there and sat in and heard what other school districts were doing.

Gail continued her story by describing how she and the union vice president came to the same conclusion. She then told about the powerful conversation that she had with the co-principal about the roles of the coaches in their school. She asserted:

The union vice president and I sat away from everyone that day because we were the rats. We looked at each other and said, 'So what do you think?' We both came up with the same thing. What had happened was they picked, for our district, people that didn't have the classroom management skills. They were people that they thought they could mold. They were people that we thought did not accept the responsibilities of what it should be. The person that was handling them [co-principal] again did not have the classroom management skills. She could quote you the whole standards. She could quote you PSSA. That is not what this school needed. It was not the way they presented it [coaching] to us.

There are districts out there honestly doing really well that I sat in with on that day. I went down there and I came back and said to [the previous co-principal], 'Wow, if our coaches were only like the coaches in such-and-such a district.' And she was offended and said, 'And what do you mean by that?' I said, 'Well, our people are doing more administrative duties than they are doing coaching duties. If something needed to be filled out like a survey the coaches would do it.' The coaches could work on their graduate stuff while they were coaches and get paid for it.

The teachers described factors that facilitated change occurring within their high school. They were asked what factors contributed to the PAHSCI being successful. The teachers identified PLN training, professional development opportunities, a hard-working faculty, people being receptive, having collegial conversations and sharing, teachers modeling strategies for each other, and receiving graduate credits for completing PLN classes. Teachers' responses clarify these successful factors.

I have to say it has pulled people together to talk. It has opened communications to some degree.

Conversations are open and collegial. With the PLN you have opportunities to communicate with colleagues in other buildings. Sometimes we were lacking in those things. Now we get to talk with people from the other high schools.

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Collaboration, the ones [teachers] that you want to learn from are the ones who are doing it. The coaches are kind of out of it as far as I am concerned. I would rather go to [a teacher who knows the strategy] than a coach. They don't understand. Even the Classrooms for the Future, our coaches don't even know that much about that. It is actually the staff that is using it right now. We know more about it than coaches.

I think it has always been, since I have been involved with this faculty, that our faculty is always hard workers. You give them something and they appreciate it. They appreciate things like the PLN. Face it, you got four and a half graduate credits and you did not have to pay. I mean, that is an incentive. We don't just say, 'Ok, I took the credit but I am going to just dump this in the garbage can.' We do use it and given opportunities, the staff has always been pretty receptive to those things. That is what I have noticed. I don't think it happened with just the coaches. Frankly, I think it is just the teachers themselves. They wanted to use it. I think we learned more from our fellow teachers than actually the coaches.

Knowledge

The creation of knowledge as a district and school enabling condition was described by teachers in numerous ways. There were many initiatives that the teachers were exposed to that created knowledge for them. Classrooms for the Future, Pennsylvania Literacy Network classes, and the Reading Apprenticeship program that was started one year prior to the PAHSCI were all initiatives designed to assist the teachers with developing skills to increase student achievement.

Teacher Responses-Partner Supports

The second component of the PAHSCI Theory of Change is partner supports. The three elements are professional development, mentoring, and responsive problem solving. The responses of the teachers to the interview questions are categorized to determine if the partner supports are provided.

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Professional Development

The most significant component of the partner supports, that teachers identified,

was the professional development provided to them. Every teacher mentioned or

described, in some manner, how there has been an increase in the professional

development through the Pennsylvania Literacy Network (PLN) or Classrooms for the

Future (CFF). The comments and descriptions provided by teachers regarding

professional development are:

> Those of us that are lucky enough to have both the PLN and the Classrooms for the Future are able to have students interact with the text and do text rendering on the promethean boards. It can then be changed for every class. So it is accommodated right to the students.

> The PLN training and then other professional development opportunities that have spun out of that training has increased my willingness to change some of the things that I do.

> I think putting technology more and more and stressing technology in the classroom. We are really trying to focus a lot on using the technology in the classroom, so, I mean…it is giving us the upper edge.

> For me the difference is that I have become more interactive. I am incorporating many of those PLN strategies that we have learned. Oh, my gosh, it works!

> This is my sixth year. When I first started the students were all in rows. I rarely had them working together because of them not learning. Now, I can put them in groups or pairs and things have just changed in the way that I run my classroom. It is easier for me and I think the kids have more fun and I use the PLN strategies. I think they do work. I am not the biggest advocate for technology all of the time because I learned how to read and write and do research without technology so I feel the kids should want to go to a book for answers and want to read it and find it. I try to encourage kids to like to read because I think that is where it starts.

> My undergrad is in English which left me as a sage on the stage. That is what my teaching style may have been if it wasn't for the PLN or the CFF. My first year here, I would stand up there and read. I would lecture and they would listen and not really interact with me that much. PLN came around this year and it gave me all of these strategies and a whole slew of tricks to use in my classroom. So it has changed dramatically since the first time I was here until now.

We have had a lot of PD opportunities with PLN. The ideas are really neat and they work. So it is fun. You want to use them in your class because they are fun. Then when you see in the results that they really are working, that is really great motivation to try some different ones; to try more.

When PLN came along it was nice because it was actually refreshing. Some of the things you did before and they had a different name on them; but it was some new strategies too. There are some new tricks in the bag that you could use and now with the Classrooms for the Future you even have more.

Gail described how she changed her instructional approach. She responded to a

question about taking PLN classes and immediately she stated:

I have changed. It changed my room around. PLN was a difference. It was a very interactive learning plan. The teacher is the facilitator. I readjusted my room into the "U" shape so there would be no backs to me. This way I could walk in the middle of the "U" and I would have more contact. I could stop and make sure that people were on task and I am still keeping up being the facilitator. They are starting to grasp it a little easier because the kids that had me last year, as their first year, I have noticed the difference this year. They have just jumped right into it.

A follow-up question was asked to verify the beliefs of the teachers. The tone of

their response added value to their response. The question posed of the teachers was; so

the major factors that influenced that change that you talked about, would that be? They

didn't wait for the end of the question as they responded in unison "technology and

professional development."

<div align="center">Teacher Responses-On-Site Professional Development</div>

At the very heart of the PAHSCI is the third component of the Theory of Change.

This component uses literacy and mathematics instructional coaches as on-site

professional development specialists so that professional development will be embedded

in the daily lives of the teachers in the building. The goals are for coaches to provide

sustained support to teachers, develop a literacy rich curriculum and instruction, plan

professional development, assist with data analysis, and foster collaboration among the

staff. The responses of the teachers to the interview questions are categorized relative to these coaching goals.

Sustained Support

The goal of using literacy and mathematics instructional coaches as on-site professional development specialists was to have professional development embedded in the daily lives of the teachers in the building. A few teachers described how they tried to work with the instructional coaches. There were also comments about experiencing administrative pressure to work with the instructional coaches. Sue described sustained support that involved her:

> I would invite them into my room and have a meeting and say, 'Ok, you are going to come to my room on this day at this time and we are going to plan a lesson together.' We would plan a lesson together. She or I would get graphic organizers together and we would team teach a lesson. She would get up and teach and I would teach with her together. I would invite [co-principal] into the classroom too because she wanted to see that first year what was going on. I invited them in a lot and I did take away some ideas that work and I still use. Like I said though, now it is the third year and you don't see a whole lot of our staff inviting coaches in the way they did that first year because now it is year three.

> This is the third year and I have noticed that classroom involvement has dwindled some because we have been taught over the past two or three years what we should be doing. We know what we are doing so some of that involvement has left and is dwindling away.

Erik commented on administrative pressure to work with coaches. He stated how the teachers and coaches had guidelines to follow. Erik explained, "We had to have so many hours that we had to work with the coaches. So, they made it that we had to do it whether we wanted to or not."

Rick described his experience as leaving him dissatisfied. He felt the coaches took too long to offer him assistance. He declared:

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The first year of the coaching thing, I did not see a coach all year. No-one came into my classroom all year. I don't know if they didn't feel qualified. If they felt intimidated, scared or thought it was 'icky'. I don't know. There was no special ed. presence.

I don't want to besmirch anyone but it wasn't really until this year, when I kept asking the coaches to help me out and reinforce what I had learned in these PLN trainings that they helped me. I had questions about, 'How do I do this? What do I do? Ok, now what?' It really wasn't until this year that those questions were answered. There was a good two year lag time between the connection with the initiative and Special Ed. I won't speak for all special ed. teachers but that is my experience.

Gail first described how she had a personality problem with Marge and felt that

Marge would not help her. She then called Buck, another coach in the building who

offered sustained support to her. Gail stated:

I called Buck one day and said, 'Hey, I am teaching graphing because I know it is on the test.' He borrowed a graphing board for me. He came down and explained it to the kids. He took them step-by-step. He was great about it. I could call him up on the phone and he would be in my room in a second. I was having them reading the data, plotting the data, analyzing the data, just like you would do on the test. Just with nutrition. The kids went 'oh my gosh, wow!' After they took the test they came back and said, 'We are so glad you had us do this because we needed it and didn't learn it in math class yet.'

Lauren confirmed that she has witnessed instructional coaches giving support to

teachers. She observed:

Even though Helen is young and inexperienced, she has some great ideas. She takes her job from our perspective. What I see that she does is goes out and gets information and shares the information with the colleague. She will then team teach with us so that we can do something with it.

Literacy Rich Curriculum and Instruction

Coaches were expected to assist teachers with locating, adapting, and modifying

classroom materials that were rich in reading and literature content related to the

curriculum of the subject they taught. Coaches were to demonstrate appropriate

instructional strategies and teach instructional strategies to teachers when requested or

when they could gain entry to a classroom. The teachers had comments that related to the use of instructional strategies that were relevant to literacy. The teachers were not specific about this information being provided by coaches or supported by the coaches. The teachers' descriptions are:

> I think that every English teacher in this building has been schooled and taught how to teach writing an essay for these students. They are given a task or a prompt to write to. Students would write three sentences and think that was an essay response. We've schooled them and we teachers have been schooled on how to teach a kid to write an essay response which is obviously on the PSSA test.

> The literacy coach will come into the classroom and demonstrate how to do writing responses to open-ended questions. That provides more support for preparing for the PSSA.

> It is not only the writing. They have been able to become much better with reading and the reading strategies. We've focused a lot on the reading strategies. I teach the academic literacy and we've had the classes where that's the primary focus; to help them with their reading. You will see kids on tests actually using highlighters.

> The PLN strategies are what we have been pretty much bombarding the students with the 'Do Nows' and 'Word Splashes.' All of those things are pretty common.

Data Analysis

Sue described how she worked with an instructional literacy coach and [co-principal] to use data to guide the instruction of students. Additionally, there were comments from several teachers that were not satisfied with how the coaches tried to assist them by using inaccurate data. The teachers commented:

> We would discuss, what are the people grading these looking for? What has to be in there? For example the word explain doesn't mean one sentence. It means this many and just talking about what has to be in there. Then we would look at one that was top scoring and one that was above proficient. Then we would look at one that is proficient and then one that is basic. We would look and examine them. We would have to write out and discuss why this one isn't proficient. We have had so many meetings about it that it would be impossible for any English teacher to not understand it. Many of us have been to PLN. Many of our core

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teachers have been to PLN, which just reiterated everything our administrators wanted us to work with our students on. We have all been schooled that way.

There is one more thing that I would like to interject. At the risk of getting on my high horse I would like to say they [coaches] did a great job with the PLN stuff, the strategies, the pedagogy and that whole aspect of it. But, from my own personal experience and I have heard from other teachers in different departments, that this is also true. There is a deficit in content for some of these coaches. They don't know the content as well as I expect them to know it. If the coaches are the ones preparing the district's writing assessments and they can't get the right answers on the test (*pounding on table*) themselves; and I had to proofread them and fix them and point out why that is a bad question and why that shouldn't be there, I get a little fired up, as you can tell.

Many talking expressing their frustration: We have ambiguous questions and we are told that's ok. The kids get the test and they say, 'There's not a right answer for this.' That is where you have big trouble and they are running around the halls trying to find out, why is this wrong? That is where you have big trouble. And I have gone to the coaches, 'Why is this wrong? Oh, somebody chopped it up, it's not my responsibility and my higher up…somebody typed it and ran it off.' So, I guess in a perfect world, the coaches would be a blend of pedagogy and content. In this sense, I don't think this really happened.

Fosters Collaboration

The instructional coaches were to act as a catalyst for fostering collaboration between themselves, the teachers, and the students. The teachers had many comments about collaboration that indicated this quality was present. It was difficult to determine if the coaches were responsible for this occurring. The teachers explained:

I think that the big thing with the change has been more dialogue between the teachers. We share more of our experiences. We are more departmentalized than before, but we do share a lot more ideas than we did in the past.

When I first started with the PLN strategies, I would share it with Sue and other teachers that weren't taking it. Then they took it the second year and they were like, 'Oh, yeah, that is what you were doing.' And they started buying into it and seeing what it was like. They model it for each other.

Hey, you want to see what I am doing? Come in during your prep period and you can see what I am doing. And there isn't that fear. There isn't that atmosphere like I shut door when I do an activity so that everyone will leave me alone.

Face it, you know, the ones that you want to learn from are the ones who are doing it. The coaches are kind of out of it as far as I am concerned. I would rather go to a teacher who knows the techniques than a coach. They don't understand. We know more about it than actually coaches. If you are using it everyday and you are using it with the students, you know more about it.

Rick identified collaboration that he has witnessed between students. He shared that, "Along with the PLN thing, which is kind of nice, is the social learning. Focusing on that social learning, the kids collaborate with each other rather than working individually at their desks."

<div align="center">Teacher Responses-Literacy Rich Classrooms</div>

The last section of the PAHSCI Theory of Change is literacy rich classrooms. The goal is to foster the development of literature use in the classrooms by teachers and students. The accomplishment of the goal is recognized when teachers use instructional strategies that engage students in learning and curriculum and instruction is shared across content areas. The responses of the teachers to the interview questions are categorized and reported relative to their observations of literacy rich classrooms.

The teachers were able to identify all three of these elements as being present in their school or classroom. They responded in a very open manner when they were asked to describe what they saw as results or what was working. June explained that she adapted an instructional strategy that is called text rendering, where students mark up their texts in order to facilitate their understanding. She called it "graffiti." Her comments are:

> Not only am I buying into those strategies but the students are too. For example, coding the text is something that we naturally do and we pick it up in college or in high school where you highlight the text. I guess it is in college because you own the books and you write in the margins and that is what active readers do. When you teach this method to high school students and they start doing it more and more I have seen it help their understanding. So when the eleventh graders came

to me, I would give them a new word for it. 'Let's do graffiti today.' It is all the same thing, coding the text, marking the text, talking about the text, graffiti. It is all the same stuff.

Kristen confirmed this description of an instruction strategy that teachers learned. She stated, "We circled the main points and underlined what we were looking for."

Erik was further able to describe what he has heard that is occurring in mathematic classes. "In math what is happening is that students don't just solve a problem. They have to actually write down an essay about, 'How did I get to that answer.' A female contributed what teachers do for students to increase their learning.

> You are modeling it for them. Even if you have a kid who sneaks in that hasn't had it for the past couple years, you are modeling it so they will pick it up and see other people doing that. Then they will ask their peers for help if they can't figure it out themselves.

The social component that is commented on in this example relates to an increase in student engagement in their learning.

> Sue described what she has observed. She is satisfied that:

> They are actively involved. The students can no longer zone out and pretend that they are reading. They actually have to be involved and responding to the text as opposed to when I started teaching a long time ago. Teachers told students, 'I want you to read this and then we are going to answer the questions.' And there is no connection. I mean, you read it and you do the comprehension questions where the kids have to write the answers but there is no involvement. If they were reading it and they didn't understand it you had no way of knowing that until you got to the questions. This way you find out sooner. You can direct them and help them and let them learn how to get into it themselves. There's a lot more involvement with it.

She continued to talk more about her own transformation. She admitted:

> This is my sixth year and when I first started the students were all seated in rows. I rarely had them working together because of not learning and new strategies for good classroom management. Now, I can put them in groups or pairs. Things have just changed in the way that I run my classroom. It is easier for me. I think the kids have more fun. I use the PLN strategies and I think they do work.

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Kathy followed up by describing her experience and how she feels more involved. She shared:

> I think for me the difference is that I have become more interactive even though I sometimes do fall back into my lecture mode. I attempt to teach lessons in context. But still the instructions are, 'You have to do it this way to get to this point.' What I have noticed is that I have done more to try and get them to go along with me. Instead of just being on the stage and having them follow and not be interactive as I am teaching them, I am becoming more comfortable with having them work along with me. Like, 'Ok, go grab a computer.' I let them work along with me and see how it works. I let them go through the process with me. Then I just incorporate as many of those PLN strategies that we have learned.

Diane gave her opinion of what she has observed and how the students are engaged in their learning. Diane explained:

> The biggest change that I have seen overall is that the students have become more responsible just by being interested in what they are learning. Some of the change, again, is from the technology because technology tends to act as a stimulant. It gets them moving and makes them want to be more involved in what they are doing. Kids seem to be more interested in reading because it seems like they are able to read better due to all of these strategies. They can actually pick up a book willingly and maybe read some of it without the teacher saying, 'You must read five pages.'

Lauren responded to a question that asked her if she believed that the PLN strategies helped her with classroom management. Her answer was:

> Oh yes, because it did help that group. There was a potential for that to be a very poorly behaved group and what it did was it kept the kids involved. I think it was the interactive model where you have the 'Do Now' and the 'Share Out' and all the way until the 'Ticket out the Door.' I might have called them different things but that is the style.

Michelle agreed with her and said, "It did keep them on task by using smaller pieces of instruction. They didn't get stressed-out."

Two teachers were able to comment on how they have observed curriculum and instruction occurring across content areas. Erik first described the common language that he has observed. Then he discussed how students are able to become more involved

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because there was collegiality and connections with learning were being formed. He noted:

> It's just not in the English classes but across the board. I think that is where it is important. Where they [students] walk into June's class and think, 'Well, in Miss X's class we are always doing this.' Then they are going to walk into social studies and say, 'Well, I know how to do that.' It is across the subject areas. More and more people become involved and they use the strategies. They know what is going on and you don't have to explain it to them every time. I was one of the first teachers to start with PLN and every time I would have to explain to them, 'This is how you do 'Do Nows', 'Word Splashes' and 'Journal Entries.' This is how you do it.' You constantly had to remind them. Now it is at a point that they are familiar with it. When you say what it is that they are going to do they should understand and know what they are doing.

Sue described how she knew that the objective was to integrate subjects. "It was integrating the reading and writing strategies into all of the subject areas. You are not just focusing on the language arts areas."

Cheryl summarized the belief of the group of teachers. She stated that the goal "is to have everyone join together to use as many different PLN strategies that they could come up with to raise scores." She further clarified with the example of the Collins writing program being important while the teachers learned to "focus content to do open-ended questions to see whether students were answering the questions correctly."

Teacher Responses-Increased Student Achievement

The final section of the PAHSCI is increased student achievement. The elements of the PAHSCI Theory of Change are designed to accomplish the goal of increasing student achievement. It is equally important to examine the teacher statements to explore what other factors are present that could have resulted in the increase of student scores. The responses of the teachers to the interview questions are categorized to identify the factors that contributed to an increase in student PSSA scores.

The teachers were asked to describe how their school's PSSA mathematics and reading scores improved over the last two years. They named many factors that may have had a positive impact on the increase of PSSA scores. The PAHSCI or CFF were not mentioned specifically as having a direct impact on the increase in student achievement. However, two components of the PAHSCI were identified. The two areas were reading strategy instruction and writing assessments that emphasized the literacy coach assisting with open-ended questions. The focus group of teachers listed the following ways that their schools PSSA scores increased:

1. There was no social promotion. This meant that all students had to have the correct number of credits to be in grade eleven to take the PSSA test in their eleventh grade year. There were credit recovery programs in place. This meant that a student could be in a grade ten "recovery homeroom" and receive enough credits over the course of the school year and over the summer to then be in a grade twelve homeroom for his/her senior year. In effect, the student would still take the PSSA exam but his/her scores would not be attributed to the eleventh grade class. The teacher comments that described this were:

> There were students for years and years that were tested that weren't really eleventh grade students. We put them in homerooms where they were recovery homerooms and that wasn't really anything bad as far as we were concerned. Because, why test a student if they weren't truly an eleventh grader? That is one thing that we did.

> You could have been here for four years but if you only had seven and one-half credits, you are still technically in a freshman recovery homeroom. By making sure that the kids were in the correct level based on their credits and not their time in school made a difference. Only the kids who were truly eleventh graders took the test.

> The kids didn't really know where they stood with their credits. It made them more aware. There were kids who thought they were really eleventh grade or twelfth grade that maybe needed this many credits to get to twelfth grade. So they were more aware of how many credits they needed to graduate.

You may have kids who essentially, on the books, jump from tenth grade to twelfth grade. They essentially skipped eleventh grade because through summer school we had a credit recovery program. We had a credit recovery which allowed students to make up credits. Last year and the year before we had a GAPS program where they could make up credits after school. It would be like "X" amount of hours would earn so much credit. Then night school and summer school allowed them to catch up and seemingly jump from tenth grade to twelfth grade. It did happen to some kids. They would just take the PSSA then as seniors.

2. The district created a mock PSSA test that was given to grade nine, ten, and eleven grade students to use as a practice to relieve student test anxiety. The results of the district practice test could then be used to guide instruction or identify the students who were most in need of tutoring. The teachers commented:

We had them take a mock PSSA which helped because we had a pretty good idea as to where they were at and maybe what they needed. That is why they had the tutoring program. It was to help stress what skills they really needed to help them out on the PSSA.

I think just the familiarity of how the questions are. I know from past experiences of giving standardized tests, part of it is just knowing how those questions are framed and having an idea that way. I still feel that that mock PSSA is a good indicator of how the kids are going to do. If they took it seriously, then you knew which kid maybe you had to center on that needed help. I mean, some kids didn't need any help. They could do it pretty well. But some kids did need that extra help. I think that was one thing that really helped.

I have to say it is respect for the test. The students are serious about it and they understand the implications of it. It is an ongoing thing that you are building on. They understand how important it is. It is not something that you are going to be absent for. You are going to be there. Now they are giving it in lower grades too. So that makes a difference.

The comfort level of students has been increased. They are more familiar with the test. There will be a student or two or twenty who will notice something that they took on the mock test. Because they understand it is only a mock test they don't hesitate to ask their teacher a question. They will say, 'I didn't quite understand this. We didn't really cover this topic. Could you help me understand this?'

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3. In-school and out-of-school tutoring programs were created for students. During in-

school tutoring students would be taken out of elective classes and placed into

remediation classes in an effort to prepare them to pass the PSSA test. One teacher stated:

> When I looked at the scores of the students who were in the tutoring it helped. After all of her tutoring for the English part, the scores went up a lot. I thought the tutoring really helped the scores to go up. If anything, just to motivate the kids to do better. Last year and the year before, we did do some tutoring after school and on Saturdays.

Gail described:

> They are pulling the kids from electives. This happens to me. They pull eleventh and twelfth graders out of elective classes and they tutor them. Then, the tutoring teacher, for example math would give that kid a grade for tutoring and then I would take what they had before they went to tutoring. I would add the two grades together and divide by two and that's the grade they got on their report card for my class.

4. Students were given specific instruction and practice in writing responses to essay

questions. A teacher explained:

> It was very focused with studying certain skills. One year it was pretty general. With [co-principal], we would do the open-ended and other specific tasks and then we would review. We've schooled them and we teachers have been schooled on how to teach a kid to write an essay response which is obviously on the PSSA test.

The literacy coach worked with teachers to develop open-ended assessments for students

to use to improve their writing ability. "The literacy coach came into the classroom and

demonstrated how to do open-ended responses to questions. That kind of thing provides

more support for preparing for the PSSA."

5. The district purchased new instructional materials that were in line with the state

content standards that are measured on the PSSA test. "We got new materials a few years

ago. Everything is so in line with the state standards that you're not really teaching the

test. You are teaching the standards. It is all within the great materials that we have."

6. Teachers were in-serviced on reading instruction for adolescent students where highlighters and various reading instructional strategies were utilized. A teacher identified that:

> They have been able to become better readers with the reading strategies. We've focused a lot on the reading strategies. I teach the academic literacy. We've had the classes where that's the primary focus; to help them with their reading. You will see kids on tests. They were actually using highlighters.

7. An incentive plan was put in place for students to attend school on a more regular basis. During PSSA practice testing students had their name placed on a ticket if they attended school on that day. There would be a grand prize drawing. The prize was for a lap top computer. A teacher noted:

> Something else that we have done is, and you hate to think of it as bribery, but the incentives that we have offered the kids the past couple years have been phenomenal. I know that when you show up everyday you got a ticket. You put your name on it. It goes into a drawing. Everyday they drew one name for a prize. One prize was a boom box. For some of these kids it was a way to motivate them. On the last day the prize was a laptop.

8. Every effort was made to fulfill all of the student's physiological needs to foster the greatest opportunity for learning. These included having a breakfast and not testing on Mondays. Erik described:

> I think one of the major things that can easily be overlooked is the minor things that we did. We did not test on Mondays. We know our demographics. We know that they don't test well on Mondays. We know we have high absenteeism on Mondays. So you don't test them. Things like the incentive program are good but also, just giving students breakfast in the morning. Some of these kids just don't do breakfast. They are running late or eating hot cheetos and coke in the morning.

9. The testing environment was intensely controlled and monitored to insure that students gave their best efforts. Teachers were assigned to monitor a classroom of no more than fifteen students for the test. The teachers confirmed:

I think you are right about the testing environment too. When we did the mock tests, it gave them an opportunity to see who their proctor was going to be or where their room was going to be on that day. They had certain places they were supposed to go to. So pretty much, they knew where they were supposed to go that day. Rather than spreading them out in the cafeteria, where there's three kids to a table. We try to make it less stressful. We try to test them in small groups of ten or twelve kids in the room with two proctors. So it is comfortable.

10. All accommodations were followed for testing exceptional students including the use of the library and private study carrels to eliminate distractions. All special education teachers were present to assist students according to their IEP and state accommodation standards. A teacher noted:

A huge thing is segregating out special ed. kids; not just lumping them in with all of the other eleventh graders. A lot of those kids need an atmosphere of reduced stimuli. Stick them in the library. Some kids are in desks in between rows of books. Surrounded by silence and with no one to look at and exchange glances and giggle, they can be on task. We have help for them. We have special ed. teachers there to help them.

11. There was no time limit given to any student to take the test. There were six sections of the mathematics and reading PSSA test. One section was given each day for six days. A student could take what ever amount of time that he/she needed to take that portion of the test on that day. The description was that, "We did one test section a day and if you want that whole day to complete that test section you can do that. There was no time stress at all. You could just do it until you got it done."

12. A program had been started one year prior to the PAHSCI for reading instruction. The title of this program was Reading Apprenticeship. The teachers felt this may have had an impact on the students. "The reading apprenticeship goes hand in hand with that [PLN]. We have been pretty much bombarding the students with the strategies. The 'Do Nows' and 'Word Splashes' and all of those things are pretty common."

13. Two teachers mentioned the importance of the curriculum mapping that was started within the district to be sure that course content was aligned to the state standards. Rick said, "I think one other thing that was big was that we got our curriculum maps straightened out." A female colleague agreed. She said, "Pretty much, across the board there were many curriculums remapped. We understand that a curriculum is a living thing and not something that is done once."

Other factors were present that could have had as much of an impact on the increase in student PSSA scores as the PAHSCI may have had. Therefore, it became important to examine the teacher responses to the interview questions to discover how they determined if the PAHSCI was successful. What changes did the teachers observe that occurred with themselves and their students that would allow them to assess or measure if the PAHSCI was successful? Their responses to the interview questions were categorized to answer this question that emerged during the data collection process.

Teacher Measurement and Assessment of PAHSCI

The majority of teachers identified that the PAHSCI has been instrumental in getting them to change their instructional strategies. Rick said, "It was successful in helping me with my pedagogical strategies and approaches. I think it fell short when it came to helping the students." June countered his statement when she said, "If it helped you personally as a teacher, I think then it filters down to the students. Wouldn't you say? It depends on how loose of a filter you are." Diane commented that, "It was very good at helping teachers make change and implement new strategies." Sue said that, "The new strategies are the huge thing because that's making the major changes in the teacher." Erik wanted more time. He was an experienced teacher and believed that, "It is a long

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term change. We have only been at it for three years. Over the course of time, we may

see more benefits."

The teachers identified how the PAHSCI made an impact on them. It was

valuable to know if the teachers could identify any new ways that students demonstrated

their learning. Were teachers doing anything differently to help students learn? The

teachers were asked to identify changes they designed or witnessed to influence how

students produced quality work. What proved that students learned?

One of the first things that Erik identified was related to the planning that he puts

into his lessons. He said:

> I put more time into lessons. I try to see what I can do to click with the students
> because the students are changing. It isn't like it was 20 years ago when I first
> started. I mean kids would pretty much go along and do things. Now you have to
> find new ways to motivate students. I just don't sit down and write a lesson.
> When I do a lesson for the week, I sit down and spend some time on what I want
> to do for the week other than 'I just want to read these pages for the week.' But it
> is more, 'What do I want to do with these pages? What other activities can I do?'

The following teacher statements are changes they have observed or been

involved with since the PAHSCI was started. The teacher descriptions were:

> I would have never approached non-linguistic representation of concepts had it
> not been for the coaches and the initiative. I probably would have taken a couple
> years, when I was teaching social studies last year, to conceptualize having my
> students learn and build an Egyptian pyramid using play-doh. Then I graded them
> on it rather than write a test asking, 'How did they build the pyramids?'

> I have seen sort of a change. I don't know if it goes with the coaching initiative.
> More student work is being posted. We do more art to make the connections. You
> read a story and draw a character, more of those things.

> We get students to do graphic representations of a concept. You are pulling things
> out that students maybe haven't done in the past. Sometimes, I think in high
> schools, some of the teachers say, 'That is middle school stuff. We don't get out
> and draw and color with crayons, pencils, and pens.' That kind of mentality has
> changed too.

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More authentic assessments and double entry journal writings are used. We just stop now and assess students. Instead of waiting until you are done with the section for a paper test, you stop and do those types of activities.

What I see in the library is kids speaking more collegially about projects they are working on. It is not frequent but in certain classes, with certain groups of kids. Our honors academy is one of them. They come in and they work. You hear them working. They take a little more initiative than they have in the past.

The writing we have with the Collins program that uses the focus correction areas, I think that was helpful. We are used to having essays created for everything in the world. If you are able to just focus on three areas, sometimes it takes some of the fear out of students. It gets them to write.

Two teachers had important statements to make regarding student learning. An unidentified female discussed the inconsistencies with assessment. She made a valid point about how the PSSA test is a pencil and paper test. Then Diane commented about where she has seen the greatest change in the students at this high school. The unidentified female teacher declared:

You are not going to get rid of your pencil and paper quality of work until you get rid of the pencil and paper quality of testing because you have got to pass that PSSA. That is the way the PSSA is given; through a pencil and paper response. So, if you are going to take some of that testing pressure off in a different way, then your quality of work is going to change. If you are going to have project based testing, which isn't realistic at this point; then you will get project based instruction instead of what you are getting now. What I am seeing is that a lot of the strategies that we used at the elementary and middle school are moving their way up into the high school and being reworked. They're strategies that I had already used before and knew they were very effective. So what you are moving completely away from is the idea of high school as a lecture based teaching area. That is what I am seeing is happening.

Diane observed:

The biggest change that I have seen overall is the students have become more responsible just by being interested in what they are learning. Kids seem to be more interested in reading because it seems like they are able to read better due to all of these strategies. They can actually pick up a book willingly and maybe read some of it. There seems to be more student interest.

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This analysis now examines the emergent themes from the data provided by the administrators, instructional coaches, and teaching staff.

Emergent Themes-Administrator Beliefs

The views of administrators, instructional coaches, and teachers were classified, categorized, and examined for common themes. An increase in communication, collaboration, accountability, ownership, leadership, and vision were identified as the qualities that made an impact on changes occurring within this high school. The analysis of the administrator comments illustrates these assumptions.

Communication and Collaboration

Evidence of communication that was consistent among the administrators was that there was a clear expectation to work toward the goal of increasing student PSSA test scores. This communication served to illustrate that the vision was known by the administrators. There were statements that this belief was communicated from the superintendent to the principals. In addition, the principals commented on the need for students to be accountable for their actions and their own learning. The need for teachers to continually learn, grow, and improve their instructional delivery was communicated because of this district's involvement in the PAHSCI.

Terry accentuated the communication of the schools mission by saying, "I always talked about school climate and order of the building and accountability. Those are the major factors that contribute to a child's success, as well as collaboration." Terry told the teachers if the school improves its PSSA scores they will get the credit. If the school does not improve its PSSA scores he will take the blame. Teachers responded by asking him to come into their class to see a lesson they had planned. The teachers complained to Terry

about the selection of the coaches. He tried to stay positive and communicate accurately. He explained, "All teachers know that if they have an issue or if they have questions or concerns, they know they can come and talk to me about it." After some time he believed the relationship between the selected coaches and teachers improved. "I know the staff would tell me that they didn't have respect for those teachers [coaches]. I think now they [coaches] have the respect of the teachers."

In her description of communication with teachers Lori stated that she has had to "role up a newspaper and whack a teacher" who didn't understand the need to change. That was not a common practice. She explained, "We told them, its one step at a time. You're going to have to fall back, regroup, rethink your lessons and how best to convey them." A more common practice was for teaches to confide in her that they had a tough class and asked her to offer suggestions. She said of teachers and coaches, "I do know they talk to one another." She gave an example of a couple of teachers that she was involved with "asked another teacher if they could see what she was doing. They wanted to go and observe one another." Lori mentioned how teachers were communicating with each other in the area of data collection. "It is a peer approach for the teachers because you know that the ninth grade teachers are talking to the tenth grade teachers and tenth is talking to eleventh." She described how she discusses with students their need to be accountable. The result was that she noticed more students staying after school to make up work.

John mentioned numerous times in his interview that he believed the use of PLN strategies learned in professional development classes gave teachers a "common language." He mentioned how teachers "communicate and collaborate at after school

program development." He asserted that students were more cooperative and less resistant because "we're all coming along and talking the same kind of language." John mentioned that credit should be given to the professional development offered through the PAHSCI because it "sets up a time when teachers can collaborate."

The last administrator who was interviewed, Dave, described in detail how he and Terry valued the communication that was needed to administer his high school.

> We really try to have meetings with the classes. Terry and I do. You know, try to explain to them [students] the process of it. You don't just get passed through here. You have to pass this many credits to graduate high school. You have to pass the PSSA, or you can't graduate from high school. So, I think a lot of that has to do with our success.

Throughout this research study it was evident that communication and collaboration are intertwined. The word collaboration was mentioned often during the interviews. Collaboration of all stakeholders was extremely important in this age of accountability. The interviews of administrators disclosed that three administrators mentioned the word collaboration or described collaboration that they observed. The need for student achievement required that collaboration became a key goal for everyone including the superintendent.

The superintendent of this school district described his belief about collaboration on the school district's web site. "Learning results when community members, parents, businesses, and concerned individuals work collaboratively with educators to tie knowledge with individual levels of student's profile. Education needs each of us to educate all of us."

The principal stated his "objective was to encourage teachers and coaches to work collaboratively". What follows were other examples of how Terry used the term

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collaboration to demonstrate how important a goal that collaboration was for him. "We try to be as collaborative as we can." He mentioned that teachers demonstrated collaboration by doing "peer reviews and attending professional development sessions after school about different techniques and classroom management." "The professional development and the opportunity to allow teachers to collaborate with one another were identified as an attribute of the PAHSCI." He stated his emphasis on school climate and order of the building contributing to a child's success "as well as collaboration."

Two additional administrators Lori and John mentioned the importance that collaboration plays in teacher and student success at their school. Lori first mentioned how teachers and coaches developed their relationship so that coaches could help teachers. "I do know they talk to one another. They share a lot of ideas. Teachers are collaborating with one another." Lori used the term collaboration when she described how the teachers union supported the administration when the coaching initiative started. "The teachers union collaborated with administrators by intervening with teachers by telling them, 'These folks don't want to deal with 20-30 write-ups from you a day because you can't control your class, because you don't have these students actively engaged in what they are doing.'" John used the term collaboration when he explained how he viewed the value of the PLN courses by saying, "It sets up a time when teachers can collaborate." He further mentioned the central office collaborating with principals when he described how the PAHSCI was started. "It's always been top down, but again, there's been a lot of collaboration. Central administration, those people work with the high school principals to set up a game plan for the initiatives that seem appropriate."

There was a consensus from three administrators that the PAHSCI was a factor in promoting communication and collaboration. Dave believed that PAHSCI played a part in fostering collaboration but that he and Terry were a significant factor in communicating expectations. Terry believed that communication has been made better because he was more visible while doing walk-through evaluations. "It's collaborating. All the teachers know that if they have an issue or if they have questions or concerns, they know they can come and talk to me about it." The professional development and the opportunity to allow teachers to collaborate with one another were identified and attributed to the PAHSCI initiative.

Accountability and Ownership

In addition to asking for collaboration on the school district's website the superintendent outlined his desire to increase the accountability and ownership of the employees in this school district. He quoted Michael Fullan by writing, "The success of a school requires a cultural change to one of a systems delivery approach where each and every professional accepts responsibility for all students as members of a team." He explained what research has discovered. "The results confirm that adults working together can foster extraordinary results in students. Improved educational opportunities are realized when parents, teachers, students, board, administration and community work together." There was evidence in the interviews of administrators that accountability and ownership were important.

The superintendent commented on accountability to Terry when he first became principal of the high school. Terry recalled the superintendent saying "Eighty-five percent of this building isn't the kids. The problem is the teachers. You get the teachers to

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do what you need them to do and everything else will line up properly." Terry described

how he had to dismiss a teacher who was not doing his job and was resistant to follow his

direction. He believed that "opened the eyes of all the teachers in the building." He said

that, "It was very difficult for me to do. For the school, for the kids those things need to

be done." Terry believed the order and discipline he and others provided contributed to

the schools success. There had to be some administrative pressure to overcome the

teacher resistance. He said to teachers, "I need you to work with these people (coaches)."

When he was asked to clarify he stated:

> Well, there are two discussions going on here. The first discussion is the
> discussion that I stand by. It is that when you have order in a building then you
> have discipline in a building. When you have people on task, I mean, the teachers,
> doing what they're paid to do, and using the whole fifty-six minutes to do it, and
> holding them accountable and you accountable, you're bound to have success. It's
> the whole organization and leadership style of management. On the other hand,
> you have people that say if the teachers teach interesting lessons then the kids will
> be interested and they'll want to learn. I think that may be true in some schools.
> But, I think in this particular school it's just the first one.

> When Terry was asked who was responsible for giving direction to the counselors

to examine the data and the math anchors, dealing with the co-principal, having

confidence in the staff, and creating a testing environment he responded:

> As much as I hate to say this, but I guess it's the stubborn bull you're looking at. I
> think the biggest factor last year was trying to convince the staff that what I was
> doing, trying to do, was the right thing to do. I was lucky enough that we made
> that increase in math and we made an increase in reading to make AYP. I surely
> would have had my hands full this year if I would've done all those things and not
> made it, or made little progress on it.

He tried to stress that he was in this situation with his faculty.

> I think the big thing was that, I don't know if I want to say this as resistance from
> the teachers, but it was kind of like, 'Oh, here we go again. You know, you're the
> fourth principal in four years. Now what are you doing?' But I think the big thing
> was that I said, 'Look, I'm as accountable as you are. If I fail I'm gone.' I always

jokingly say I'll be the principal in the boys and girls club if we don't do well here.

Terry, early in the interview when he was describing his relationship with the co-principal that was at his school with him at the start of the PAHSCI, briefly described an incident about empowerment. He felt that the co-principal was putting too much pressure on teachers to use the various PLN strategies in an effort to get them to change their instructional practices. He said, "I found out as we got going that the staff that was in place had a grasp on what needed to be done to raise our reading scores. She was smothering them." He felt things got better with his relationship with his staff when the person who was the co-principal took a position in another school district. He particularly focused on the pressure that the English department felt to implement PLN strategies.

> The English department, I think they felt that they were being smothered as far as what they were doing. They're competent enough to go ahead and teach their lessons and teach the curriculum. They didn't need someone looking over their shoulder every five to ten minutes. The teachers (coaches) were selected by the other co-principal that was here when I got here. My guess is the staff felt they were not the strong teachers of their particular area. So, I think it took them awhile to adjust to having those people as coaches; feeling that they were the strong people in the group.

Lori described an action by the principal (Terry) to insure accountability. She explained that he tried to empower teachers by fostering the restructuring of the school "so that it functions better and teachers are willing to work with one another. It's the whole comrade thing. If you don't have that, the teachers don't feel good with one another or safe with one another."

Lori described how the administration and teachers were trying to make the students aware of their need to become better students. She believed the purpose of the changes that occurred was related to "increasing student accountability to be more

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responsible for their own learning." They were receiving some pushback from the

students, which was interpreted in a positive manner. Lori mentioned:

> What they resent, and I know this is going to sound looney to you, is that they
> have to learn something new. The learning of new concepts just frustrates them.
> And I tell them, 'If you don't want to learn anything new, you've got to go back
> and sit in fourth grade until you turn twenty-one. You can be the oldest graduating
> fourth-grader that there is. When you guys come to school, you've got to expect
> to learn something new every day.' A new concept every day, and it's hard.
> Education is not an easy walk in the park. It's hard.

It was satisfying to Lori because she observed the students responding.

> I'm seeing the higher order questions. In fact, home work has changed. Instead of
> doing these ten things, you answer one question completely. You think it out. You
> cite where you found the information to back your position up. I think that's a
> plus. More and more teachers are having their students do presentations now and
> small groups doing a lesson. I said, 'Because most likely, those students will
> emulate what you've done in the classroom, and you can see that as a reflection of
> what is positive or negative.'

The students communicated with Lori what was going on in their school.

> The students will tell me who the good teachers are and who the bad teachers are,
> and what they are doing different. They do. They honestly tell me. Then they tell
> me what they like about it. It's not that the good teachers let them get away with
> anything. It's usually that they're pushing them, and pushing them, and pushing
> them. There are more labs. There are more presentations. There's more research
> on the internet.

> John became aware of how anxiety often needed to be created, in this case with

students in order to get them to be accountable and have ownership.

> We've got to press them. I've heard a complaint that, it's actually an honors bio
> class, where a teacher is just complaining that these kids are saying, 'You're
> going too fast. Can't you slow this down? I'm going to have my mom call,
> because you expect too much from us.' So, it's good. If that's the kind of
> complaint in a parental meeting that administrators have got to take, bring them
> on. We want to challenge these kids.

Leadership and Vision

It was evident that all administrators knew that the vision of the PAHSCI and the high school and the entire district was to improve student achievement (PSSA) scores. There was communication about the way to achieve that as being more student engagement in their learning and less reliance on teachers lecturing to classes. The superintendent addressed his vision on the school district web site in his essay, "Creating Champions: A Commitment for Change." He wrote, "This school district is restructuring its delivery of all instructional programs/curriculum to meet the needs of students." He further challenged the educators in his school district to adhere to the vision that, "Student based learning driving instructional design focused on preparing students to acquire the necessary skill sets to become effective learners must become status quo." Administrators described the vision for their high school when they answered the interview question about the purpose for the changes that occurred with-in their school district and high school.

Terry stated that his objectives were to have the school make it academically and to encourage teachers to work with one another and to work with the instructional coaches. He was asked about the purpose for all of the changes that were occurring within the high school. He said, "We have different learners now these days. We don't have students that can sit for fifty-six minutes and let someone write notes on the board. The students bring a lap top into the room and do an internet search." He added that his challenge was to convince the staff "to change for the better. That is the way we need to approach how we teach these kids. I'm as accountable as you are. I think the teachers felt that the administration was not accountable for anything." The way he tried to

accomplish this was by issuing clear and precise policies "to get teachers to not be so

confrontational with kids that are in their room".

John described many good things going on in the district when he was asked the

purpose for changes. It took some time and his answer was interesting but then he got

right to the point of the purpose for PAHSCI and other initiatives in the high school. John

first stated the purpose was:

> to increase the rigor in the classroom. You do that by keeping the kids in tune and
> in touch. You know, being a part of their world and making it exciting. That starts
> with the teacher in the classroom and then with all the necessary support like
> either hardware, software, whatever it is. I think our district does a good job of
> keeping parents informed, certainly the kids informed. But the overall purpose is
> that the only target out there is not raising the SAT scores. That's a good auxiliary
> that will happen. You know higher SAT or ACT scores for those that are college
> bound, but you know, passing the PSSA. That is the number one target, because
> as we look around at other urban districts in the state, they're not doing as well.

This analysis now turns to examine themes emerging from data gathered through

the interviews of the four instructional coaches.

<center>Emergent Themes-Instructional Coach Beliefs</center>

An increase in communication, collaboration, accountability, ownership,

leadership, and vision were identified as the qualities that made an impact on changes

occurring within this high school. The analysis of the instructional coach comments

illustrates these assumptions.

<center>*Communication and Collaboration*</center>

Helen discussed how communication and collaboration have improved. She

responded to the question, "Can you describe how teaching and learning are changing in

your school right now?"

> I think teachers have open doors more. I mean they are willing to try team
> teaching and are willing to share. They are willing to talk about teaching and

learning as opposed to just what so and so student did in my room today. I have seen that change. Teachers are willing to try new things. They are willing to talk about things.

Marge explained that the terminology and language used was a common way to foster communication.

You don't have to spend ten minutes explaining a 'Do Now', a 'RAFT', or a 'Ticket Out the Door'. They know the terminology. So you just put that strategy up there. That teaching method up there and they know. You are not wasting precious time, instructional time explaining how you are going to do something.

Helen was asked, "What can you identify that has contributed to your success and the school's success from your involvement in PAHSCI model?" She responded quickly with:

Teamwork and collaboration are absolutely important. I don't see how any principal can look at the daunting task of AYP and have no support help. How can any teacher think about how to reach the needs of the off-grade level learner in their room or the ELL or the special ed. student without another pair of eyes?

I followed up by asking, "Who was responsible for the teamwork and collaboration?" She responded:

It was the initiators of the grant which would be the co-principal and another staff member on the math side that was her counterpart. Those two would manage and work with their teams. They had the literacy coaches and the math coaches. They were very good with supporting us and bringing us together to get things done. You have got to have the right coaches in place. You have got to have coaches that are willing to be a team player.

Accountability and Ownership

Buck responded to a question about where the committees fit in for the changes to occur. He commented:

Well, a lot of them have been involved with it. A lot of them are the ones that came up with these ideas and decided as a group, 'That's what we're doing.' I mean, if one person just stands up and says, 'This is what we're doing all the time.' It doesn't always work. It's just like the kids when you try to create ownership. And we do the same thing with the teachers. So, if they're involved

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with it, then they have a stake in it. So, we try and get them involved. If they're not willing to try and be a part of it, then they don't have a right to really complain. Even though they will.

Buck was asked if he could identify the greatest change that he has seen going on in teaching and the learning of students. He responded:

> participation. It gets back to being interactive in the classroom. You know, the more active the students are, it gets back to the same thing I just said about the teachers. They're creating ownership. The more involved they are, the more they believe in it. And the more they trust in it.

Marge described how ownership and accountability need to be expanded to coaches. She clarified why it is a good strategy for principals to use:

> The role of the principal is to support what coaches want to do. Often times, principals have so much on their plates that I think we can often see the needs even clearer. We are with teachers. Not that they aren't. It is just that they have so much more to deal with. So I think that there has to be an allowance of coaches to do things that may not have been the idea of the principal. We can fill a need that exists and create opportunities for their teachers to build capacity.

She further clarified how she has seen students and teachers take ownership. "So I think that it is through students taking more ownership of their learning, that you are going to get better quality work. And I think that is called engagement."

Patty has noticed an increase in the responsibility that students are assuming. She commented:

> I think the kids take learning a little more seriously. I think the kids realize that the PSSA test is going to be the measure of what they've done. I don't think they did in the first years of it. It has an impact and I have to prepare for this from the very first day that I come here. The students are really catching on to this. They're starting to take a little more responsibility for their own learning.

Leadership and Vision

Patty articulated clearly how Terry communicated the vision to the faculty. She said:

He expected people to be here on time. He expected people to teach bell to bell. He expected people to be in their classrooms. He expected people to be at their doorways and in the halls between classes. I mean he put out a teacher handbook that spelled out the procedures. Things just tightened up I guess. Everybody, I shouldn't say everybody, most of the teachers who had been here knew what the procedures should be. But they became rather lax over the last several years. I think Terry just made it very clear that we were going to stick to protocol and we're going to do what we need to do. We're not going to mess around because the bottom line was the passing scores had to come up.

She continued to explain how the vision of what needed to be accomplished at this high school involved everyone, including the students. Patty described:

I think the tone of the building is business. I think that the teachers are really helping the students to realize that I have the knowledge to impart to you. I will help you learn this, but you need to take responsibility. I can't sit here and go boom, boom, boom, and pound it into your head. You have to put forth some effort. And I think that has really been a big impact. Changing that responsibility from, 'Well, you're a terrible teacher, I can't learn anything.' To, 'No, you can learn it. You have to do homework and you have to practice.'

Patty further clarified how important the principal and coaches are in order to communicate that vision to everyone. She acknowledged:

The principal is the educational leader of the building. He or she has to be visible. You have to really set the tone and impart that vision I guess to the teachers and to the kids and to the parents and to the community. Everything you do has to reflect that whole idea of learning community. You have to be able to communicate that to everybody.

[The coaches] part is to carry out that vision of how can I help you learn. The coach is there to support the teacher. The teacher is the direct contact with the kids. The teachers have really come to appreciate that support. You didn't have that before. Once a year you would have a principal come in and evaluate you. They would say, 'Well maybe you could try this.' But, they never gave us a clear direction.

During the interview with Buck the follow-up question lead to comments about the vision. If everyone knows what needs to be done, "how would you summarize that? What's the emphasis? What needs to be done?" He responded:

I hate say it but make AYP (Adequate Yearly Progress). We didn't think it was working. You know, lecture wasn't working. We needed something else. We do a lot of research. We do a lot of reading of articles. We do a lot of that. That's where it was leading. Ninety percent of everything we do in this district has been research based. We spend a lot of time reading articles, talking to people, and trying to see what the research is telling us.

Helen described the purpose for the changes. "So that we can improve instruction and improve what's going on. Just to improve what is going on in my room." Marge was able to describe in detail what she believed the vision of the high school and district was. She articulated:

The purpose of it was to make life easier for teachers because if kids are engaged, they are not causing a problem. I think more of our PD in the past year has been on classroom management and getting teachers to understand the correlation between taking time to plan lessons and not having a bad day at work. I don't know how to get that through any other way. Some of the ones [PD] I did alone were lesson planning and student engagement. They're coming in and they know by framing the learning by the agenda that you need ten minutes to explain what's going to happen. Then they're going to get together and talk about it. Then you are going to share out. Then you are going to go back to whole group. Then you're going to go back to individual work while oscillating between those parts. If they know that at some point they will have time to talk, they are much better with that, than thinking, 'Ok, this person is going to stand up here and lecture for forty minutes and I am going to go ballistic. So I am going to just start screwing off right now.' So that whole idea is to frame the learning and to help kids to understand what the goals of their next fifteen minutes are.

This analysis now turns to examine themes emerging from the data gathered through the interviews of the teaching staff.

Emergent Themes-Teacher Beliefs

An increase in communication, collaboration, accountability, ownership, leadership, and vision were identified as the qualities that made an impact on changes occurring within this high school. The analysis of the teacher comments illustrates these assumptions.

Communication and Collaboration

The teachers identified communication and collaboration as extremely important. In fact much of the resistance that they expressed was because of a lack of communication. The teachers were not happy with how the coaches were selected. They expressed concerns about confidentiality and had issues about trust. They expressed a lack of confidence in the abilities of some of the coaches. When they did try to buy in and work with the coaches they expressed resentment. The resentment was caused because the administration had the coaches doing duties that took time away from the assistance that they believed they were entitled to. They expressed a great belief that the strategies they learned through the PLN trainings helped foster the use of a common language. Teachers talked collegially about methods of instruction. The sentiment appeared to be that the strength of the Pennsylvania Learning Network instructional strategies and the time they were given for professional development overcame the negative elements that they perceived.

A teacher stated, "I don't think the coaches really knew what their roles were. They really didn't know what coaching was about themselves." This expression by one teacher explained the obstacles to communication and collaboration being established. How can one expect to communicate and foster collaboration if they are unsure of what it is they are to do? "They were maybe seeing what they were supposed to do. What they could do because there was a whole lot of uneasiness" was a response of another teacher. Other teachers mentioned that the coaches' jobs should have been "bid on" so that anyone could have had a chance to apply. Yet, another teacher said a list of the qualifications of a coach should have been given to everyone. This would have helped

alleviate uncertainty. Then, just as quickly, it appeared that the teachers were willing to give the coaches a break because they appreciated the position that their colleagues were put it. Any dissatisfaction that was present then became more intense as the teachers described how the administration had coaches completing other assignments. It appeared to the teachers that the principal's actions were not consistent with his words when he had the coaches complete additional duties.

"They are being pulled in other directions" was quickly mentioned by one teacher. Another teacher responded, "Our coaches are doing scheduling. That is the guidance counselor's job." This feeling about the coaches being used for duties other than what the teachers were told they were supposed to be doing, when combined with the teachers' feelings about themselves and the value of the PLN courses, may have actually worked to help the coaches establish a rapport with their colleagues. The strongest rapport that was reported by the teachers occurred among themselves as a result of the PLN classes.

The teachers identified PLN training, professional development opportunities, a hard-working faculty, people being receptive, having collegial conversations and sharing, teachers modeling strategies for each other, and receiving graduate credits for completing PLN classes. Teachers' responses clarified these successful factors.

> I have to say it has pulled people together to talk. It has opened communications to some degree.

> Conversations are open and collegial. With the PLN you have opportunities to communicate with colleagues in other buildings. Sometimes we were lacking in those things. Now we get to talk with people from the other high school.

> Collaboration, the ones [teachers] that you want to learn from are the ones who are doing it. The coaches are kind of out of it as far as I am concerned. I would rather go to [a teacher who knows the strategy] than a coach that doesn't

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understand. Even the Classrooms for the Future, our coaches don't even know that much about that. It is actually the staff that is using it right now. We know more about it than coaches.

We actually changed the way we spoke to the students. A lot of us did. It was a team approach. Not only did we get them ready physically but also psychologically. We were kind of building them up like you would for a team in a sporting event. Now, there wasn't just suddenly a test in March that they kind of heard about. We made sure that they were always hearing about the PSSA. We were always talking and pumping them up and getting them ready.

Accountability and Ownership

The teachers were consistent with identifying leadership that lead to accountability and ownership. Teachers described that they are "doing what we are told to do." They then commented on understanding that there was a need to change. The school district administration supported the use of technology, Classrooms for the Future (CFF), and the Pennsylvania High School Coaching Initiative. This support clearly sent the message, that was received by the teachers, that change needed to occur. One teacher stated, "The CFF and PLN forced us to make changes." Another comment was, "We are changing because our instruction is student centered not teacher centered anymore." A third issue that teachers were dealing with was that special education students were being included in their classrooms. Teachers needed to change so that they could accommodate for the needs of those students. Diane stated that, "You have to find a way to make it happen. All of these strategies and techniques have to get the kids to produce." She further clarified that she feels, "Students are becoming more responsible just by being more interested in what they are learning." All of the teachers expressed appreciation that the administration was supportive of them missing instructional class time to receive professional development. Additionally, the opportunity to receive graduate credits from the University of Pennsylvania for completing a variety of

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Pennsylvania Literacy Network classes offered validation that there was an accountability and ownership factor for teachers to change their instructional practices. The teachers stated that they were observing the majority of their colleagues changing their instructional strategies to more actively engage students in their learning. An unidentified female teacher stated, "What you are moving completely away from is the idea that high school is a lecture based teaching area."

Lauren commented about being motivated by the leadership of the principal and one of the PLN instructors Joe Ginotti. When she described how she felt the teachers in her group agreed with her. She declared:

> Here is the reality. A few years ago the principal said we are going to be taken over by the state. So we are going to have these literacy coaches. I didn't want to work with Marge. Part of me was like 'screw that. I am going to show you guys.' That kind of motivated me to work harder. Talk to teachers and say, 'Hey, we have to get this done. Let's do it in a group.' They will get it done. If you just talk to us the right way, we are going to step up. Joe Ginotti, he just really pumped us up.

The teachers agreed that, although the students are the beneficiaries of numerous rewards and incentives, they recognized the importance of scoring well on school, district, and state assessments. Kathy commented that students are getting the message that they are responsible for themselves. She said, "I have to say it is respect for the test. The students are serious about it and they understand the implications of it." Sue validated that comment by explaining that, "When the student takes the mock [district practice] test they will not hesitate to ask a teacher for assistance if they don't understand something." The teachers agreed that the mock PSSA test increased the accountability of the students.

Gail detailed how the school district fostered student accountability for passing

the PSSA test. She described:

> We are the only school district that requires them to pass PSSA to graduate. They can take the test and then keep taking it. Then certain sections, when it is down to maybe the last two questions that they can't pass, they keep taking those two questions and taking those two questions until they pass them. It goes from a state assessment to a district-made assessment. Then, the process moves to a district-made assessment by the math teachers. The math coaches make up the different questions.

She then conveyed that the PLN strategies contribute to holding the students accountable.

> It holds the students accountable for their actions and for what they have to do. They know that we are not going to spoon feed them and run after them and say, 'Ok, you didn't get your work done.' You have a time period. For example, in February I do a whole career section with them. I give them a syllabus. I check on them daily. It is up to them to be on course. On May second I said, 'I am collecting all of your portfolios.' A lot of them said, 'Well, I am not done.' I said, 'You had from March first.' You had an entire month to get this done. You have to be responsible for your actions. You have to be responsible for getting your work done. It basically made them responsible. A lot of kids were scrambling towards the end but I was just pointing out what was to be done on each day. This was one of the strategies that we learned. Hold them accountable for what they were doing.

Leadership and Vision

The teachers admitted that they started to talk about what might occur if the state

took over their district due to low PSSA scores. Many of the teacher comments to the

interview questions were very specific regarding why they were being asked to make

changes to their instructional strategies. They mentioned expressions like a teacher is no

longer a "sage on the sage, but more of a guide on the side." Erik expressed, "We need to

tutor and identify students that are close to passing. We need to make students as

comfortable as possible when taking the PSSA test." The teachers clearly expressed that

they were not the originators of making changes. They had the opinion that they had to

make the changes because of the superintendent and the grant writers who were able to

get these grants for the coaches. An unidentified female stated, "They are writing the

grants and wanted us to do this. They wanted us to participate and we did. They are the

ones that wanted it, not us."

Sue said, "There is no way that you could keep going the way you were with that

technology in there [referencing the CFF grant]." Diane commented about the PLN.

Once teachers started to use the strategies they could see the value. "That is really great

motivation to try some different ones." She stated the vision most clearly of anyone

when she identified that the current student achievement results weren't where they

needed to be. She explained, "I hate to say this, but the past has got to be a catalyst some

how. Things aren't happening. You have to find a way to make it happen." A female

colleague explained that, "Learning is no longer spitting back facts. Learning is applying

what you have learned to a wide goal."

Summary

This chapter presented and analyzed data from individual and group interview

sessions with administrators, the instructional coaching team, and the teaching staff. The

comments and opinions that were shared were presented. The common concerns and

distinctions within these groups were analyzed, coded, and classified according to the

various elements of the PAHSCI Theory of Change. Themes that emerged from the

narrative analysis relative to communication, collaboration, accountability, ownership,

leadership, and vision were presented. Chapter V now uses the various data analysis to

address the study's major research question. The answers to the research questions and

the analysis of the themes will be discussed and interpreted. These findings will be

summarized. Recommendations and suggestions for further study will then be made.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Chapter V uses the data presented and analyzed in Chapter IV to present findings to each of the study's research questions. The first section of this chapter summarizes the findings discovered during the administrator, instructional coach, and teacher interviews that answer the research questions. These findings are then related to previous studies about instructional coaching. Lastly, implications that were discovered from this study along with recommendations for future research are discussed.

Emerging research has indicated there is a potential correlation between instructional coaching and student achievement (Knight, 2004; Nowecien, 2005; Simons, 2006). In addition, when all educators have a unified focus on teaching and learning there is promise that school improvement will occur (Coggins, 2004; Edwards & Newton, 1994; Eger, 2006; Lee, 2006; Simons, 2006; Resnick & Glennan, 2002). The Pennsylvania High School Coaching Initiative (PAHSCI) used one such model of change to create a bond between teaching and student learning. Brown et al. (2006), of Research for Action, was employed as one of the partners to analyze the PAHSCI. Brown et al. wrote in *Promising In-Roads: Year One Report of the Pennsylvania High School Coaching Initiative* that a clear need still exists "to articulate the conditions that would constitute sustainability and establish the relationship between coaching, teacher change, and student achievement" (p. 43).

The purpose of this study is to understand the factors that contributed to and challenged the conditions for the PAHSCI to be a sustainable high school reform

initiative and to determine the perceived connections between instructional coaching, changed teaching practices, and student achievement. The primary research question that guided this seeks to discover how the PAHSCI influenced the change of teachers' instructional practices and the student achievement within the organizational structure of one high achieving high school. Additional research questions further explore the influence of the Pennsylvania High School Coaching Initiative on PSSA Reading and Mathematics scores over a two year period. These research questions include: What factors contributed to the implementation of the PAHSCI Theory of Change? What factors challenged the implementation of the PAHSCI Theory of Change? What evidence exists in the narrative analysis that identifies the contributing and challenging factors to the sustainability of the PAHSCI? What characteristics are displayed at this improving high school that demonstrates whether the PAHSCI is a sustainable high school reform effort that can serve as a model for other high schools in the Commonwealth? What are the characteristics of the increased quality of work that students produced? The answers to these research questions will provide qualitative data that will enable key stakeholders within the Pennsylvania Department of Education and the legislature of the Commonwealth to evaluate the potential of the PAHSCI as a model for continued high school reform.

Summary of Research

Primary Research Question: How did the Pennsylvania High School Coaching Initiative (PAHSCI) Influence the Change of Teachers' Instructional Practices and Student Achievement Within the Organizational Structure of a High Achieving High School?

There are two components to the primary research question. The first part of this primary research question seeks to understand how the PAHSCI influenced the change of teachers' instructional practices. The second part questions how the PAHSCI influenced the already positive indicators of student achievement.

The responses of the administrators, instructional coaches, and teachers repeatedly described how teachers' instructional practices were influenced by the training that the teachers received as a result of their course work offered by the University of Pennsylvania. The University of Pennsylvania offered classes through the Pennsylvania Literacy Network (PLN). The instructional strategies focused on using literacy strategies to actively engage students in their own learning. Teachers began to use these instructional strategies that were encouraged through the instructional coaches. There was an increase in collegial dialogue that centered on how successful these strategies were in creating a common language and engaging students in activity during classes. Numerous examples were given in the previous chapter about instructional strategies being used that were taught during the PLN classes. Examples of names given to some but not all of these strategies are: "Do Now" (see page 132), "Ticket Out the Door" (see page 142), "Text Rendering" [renamed as "Graffiti" by one teacher] (see page 160), "Word Splash" (see page 132), "Jigsaw" (see page 136), "Pair Share" (see page 136), "Share Out" (see page 162), and the use of the Collins writing proficiency program (see page 138). During

class students were encouraged to speak and describe to each other in a collaborative setting how to answer various instructional prompts. There was an emphasis on moving away from using lecture as the primary delivery of information to high school students. One teacher shared that instruction was to be more "student-centered than teacher-centered." Teachers began to share with each other the successes that they experienced with their students. They started to collaborate and encourage each other as they shared how students were becoming more interested in what was occurring in their classes. Numerous comments were identified that conversations were more open and collegial. This success then created a momentum to continue the change process. An atmosphere of increased responsibility and accountability was created for teachers and students. Administrators, instructional coaches, and teachers confirmed that leadership to begin this initiative was fostered by the expectations of the superintendent and support from principals.

The superintendent articulated to all principals and the community through his web site essay that a continuous effort to seek improvement in student learning was the main objective of the school district. Credit was given to the superintendent and principals for creating the infrastructure whereby teachers were able to attend the PLN classes. The principal of the building communicated to all teachers and students that a consistent approach to engaging students in their learning was a primary objective. The leadership that was displayed increased the need for teachers to embrace the PLN instructional strategies so that students were more involved. The instructional coaches became involved in supporting teachers by offering support to develop a literacy rich curriculum within their respective content areas. The opinions discussed by the

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administrators and teachers were mixed about the success of the instructional coaches relative to providing the support for teachers that was to occur in the PAHSCI Theory of Change. The views of the coaches were unanimous. They felt they had to overcome numerous challenges to assist their colleagues; however their belief was that they provided support to teachers.

The teachers, administrators, and instructional coaches identified how the PAHSCI has impacted teachers' instructional practices. The majority of teachers identified that the PAHSCI has been instrumental in getting them to change their instructional strategies. The following is a brief example of the extensive data in chapter four that supports the trustworthiness of the upcoming Table 3.

It was successful in helping me with my pedagogical strategies and approaches.

It was very good at helping teachers make change and implement new strategies.

The new strategies are the huge thing because that's making the major changes in the teacher.

It is a long term change. We have only been at it for three years. Over the course of time, we may see more benefits.

The following is a brief sample of what the administrators stated regarding teaching strategies.

The PLN classes: I saw that as successful. As I walk in the rooms, I see teachers using those techniques.

I would say it is assessment and coaches.

If we can improve instruction: that is what coaching does. There is a shift from lecture to getting students involved.

The instructional coaches offered the following statements in support:

It is getting the teachers to learn more about learning.

It is having someone [coaches] in the building that they [teachers] can turn to.

They are trying to design assessments to help students with higher order thinking

skills.

Success is when we [coaches and teachers] plan and do some lessons together.

There are people who are using these strategies.

There is a sense of comradeship that didn't exist before.

There are more teachers using alternative assessment routes than tests.

Table 3 displays information from the administrators, coaches, and teachers that

indicates their agreement on the attributes that influenced teachers changing their

instructional strategies. "Yes" means that a majority of the respondents identified the

characteristic. "No" means that a majority of the responds did not identify the

characteristic. The term "mixed" means that a majority of respondents could not agree or

disagree about the presence of that quality.

Table 3. *Factors that Influenced Teachers to Change their Instructional Strategies*

How did the PAHSCI influence instructional practices?	Administrators	Instructional Coaches	Teachers
PLN-Pennsylvania Literacy Network Classes	Yes	Yes	Yes
Collegial Conversations	Yes	Yes	Yes
Engaged Students	Yes	Yes	Yes
Collaboration	Yes	Yes	Yes
Increased Responsibility and Accountability	Yes	Yes	Yes
Coaches Influenced Changes	Mixed	Yes	Mixed

Table 4 displays perceptions about the value and impact of the PAHSCI Theory of Change. This Theory of Change serves as the model to initiate the reform effort of the original twenty-six high schools that were selected to participate in this project. The analysis and conclusions from their interviews led to the following description of the four components of the PAHSCI Theory of Change and its impact on the high school in this study that most increased its PSSA achievement scores.

Table 4. *The Influence of the Four Components of the PAHSCI Theory of Change*

Did the respective components of the PAHSCI Theory of Change influence instructional practices?	**Administrators**	**Instructional Coaches**	**Teachers**
District and School Enabling Conditions	Yes	Yes	Yes
Partner Supports	Yes	Yes	Yes
Instructional Coaching as On-site Professional Development	Mixed	Yes	Mixed
Literacy Rich Classrooms	Yes	Yes	Yes

The next four tables (labeled as Tables 5, 6, 7, and 8) identify the beliefs of the administrators, instructional coaches, and teachers about the impact of the specific elements of each of the major components of the PAHSCI Theory of Change. Table 5 describes the initial phase of the process that uses systems and structures to begin the initiative.

Table 5. *The Influence of District and School Enabling Conditions*

Did the respective elements of District and School Enabling Conditions influence instructional practices?	Administrators	Instructional Coaches	Teachers
Leadership	Yes	Yes	Yes
Infrastructure	Yes	Yes	Yes
Momentum for Change	Yes	Yes	Yes
Knowledge	Yes	Yes	Yes

Table 6 displays the beliefs of the administrators, coaches, and teachers regarding the partner supports that are designed to facilitate the change process. The not applicable (N/A) response attributed to the teachers is a result of their limited knowledge of the mentors who were not assigned to work with them. There is an explanation for administrators rating the mentoring as "no" and responsive problem solving as "no" yet evaluating the overall importance of the partner supports section listed in Table 4 as being rated "yes". The explanation for this occurrence is because the administrators rate the professional development element in this section as being extremely significant.

Table 6. *The Influence of Partner Supports on Instructional Practices*

Did the respective elements of Partner Supports influence instructional practices?	Administrators	Instructional Coaches	Teachers
Professional Development	Yes	Yes	Yes
Mentoring	No	Mixed	N/A
Responsive Problem Solving	No	Yes	Mixed

Table 7 describes the beliefs of the administrators, instructional coaches, and teachers about the role of the instructional coaches in the facilitation of the programs and processes designed to support the teachers during the change process.

Table 7. *The Influence of Instructional Coaches, as On-Site Professional Development Specialists, on Instructional Practices*

Did the respective elements of using instructional coaches as on-site professional development specialists influence instructional practices?	Administrators	Instructional Coaches	Teachers
Sustained Support by Coaches	Mixed	Yes	Mixed
Literacy Rich Curriculum and Instruction	Yes	Yes	Yes
Facilitates Professional Development	Yes	Yes	Yes
Data Analysis	Yes	Yes	Yes
Fosters Collaboration	Yes	Yes	Yes

Table 8 describes the beliefs of the administrators, instructional coaches, and teachers relative to literacy rich classrooms resulting from this initiative.

Table 8. *The Presence of the Elements of Literacy Rich Classrooms*

Did the respective elements of literacy rich classroom occur in order to influence instructional practices?	Administrators	Instructional Coaches	Teachers
Instructional Strategies	Yes	Yes	Yes
Engaged Students	Yes	Yes	Yes
Curriculum and Instruction Across Content Areas	Mixed	Yes	Mixed

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The second part of the primary research question sought to understand how the PAHSCI influenced student achievement. The views of the administrators, coaches, and teachers identified numerous district-wide and school-based initiatives that were present. The assumption can not be made that the PAHSCI was the main reason for the increase in student PSSA achievement scores. The administration supported other initiatives to increase student achievement simultaneously as the PAHSCI was being introduced. The district implemented the following additional initiatives:

1. The Classrooms for the Future (CFF) initiative was started to integrate the use of technology into instructional practices.

2. The district eliminated social promotion. Only students with the correct number of credits to be identified as having the status of being in eleventh grade were allowed to take the PSSA test. This school-based solution to increase student responsibility proved to be problematic for this study's desire to determine if a link from the PAHSCI to increased student achievement was present. The researcher noticed a significant decrease in the number of students who took the grade eleven PSSA test during the 2004-2005 school year as compared to the 2006-2007 school year. This raised the question as to whether this school's PSSA scores increased significantly because a smaller but more competent student population took the PSSA test. The possibility then existed that the less competent students were remediated to gain enough credits to be awarded grade twelve status the next year. In effect, some of these less competent students would then not have their assessment scores listed with the results of any class. The students would only be held accountable for passing the PSSA test on an individual basis

rather than have their PSSA scores count against their school making adequate yearly progress (AYP).

The number of grade eleven students each year that took the PSSA test at the high school in this study was:

School Year	Number of Students
2004/05 (prior to PAHSCI)	200
2005/06	157
2006/07	139

Found at www.pde.state.pa.usa_and_t/cwp/browse.asp?a on February 1, 2009.

3. An Honors Academy was created to keep the best students at this high school rather than enrolling in another school.

4. A mock PSSA test was created and given to all students in an effort to provide data about their progress so that teachers could better plan their instruction.

5. Students were given tutoring in school rather than taking elective classes in an effort to give them increased instructional time in reading and mathematics.

6. Tutoring opportunities were provided to students after school.

7. An emphasis was placed on student responsibility to follow the code of conduct at the school so that disciplinary infractions would not deter from instruction.

8. An incentive plan was created so that student attendance would increase.

9. The testing environment for the PSSA exam was closely monitored and supervised to insure that students would have the greatest chance for success.

10. An effort was made to attend to student physiological needs with a particular emphasis on providing breakfast and not testing on Mondays.

11. Teachers made an intense effort to be sure that their curriculums were aligned to the standards and eligible content that were included on the PSSA test.

These numerous efforts were identified by administrators, instructional coaches, and teachers as successful. They believed their students benefited from the varied efforts to remediate their weaknesses. Additionally, administrators, coaches, and teachers identified how the PAHSCI may have influenced student achievement. The results of the analysis of these comments indicated that there was an increase in an emphasis on reading and the use of literature. There was an increase in speaking and explaining. The students were encouraged to collaborate and share with each other. There was an increase in writing. The administrators, coaches, and teachers were hesitant to say that those achievements led to an increase in the students' PSSA mathematics and reading scores. However, they would not say that the PAHSCI did not influence the increase in achievement scores. These results are summarized in Table 9.

Table 9. *The Influence of the PAHSCI on Student Achievement*

How did the PAHSCI influence student achievement?	Administrators	Instructional Coaches	Teachers
Increased emphasis on reading	Yes	Yes	Yes
Increased emphasis on student speaking and collaborating	Yes	Yes	Yes
Increased emphasis on writing	Yes	Yes	Yes
Increased the student PSSA Scores	Mixed	Mixed	Mixed

The results of this study did not establish a link between the PAHSCI and increased student achievement. However, it is significant that administrators, instructional coaches, and teachers identified with certainty that the PAHSCI influenced the development of the traits of learning that are claimed to be measured by the PSSA test.

Knight (2004) found that when teachers insured fidelity to the instructional techniques students exhibited higher achievement in the writing assessment domain. Simons (2006) found that one high school improved its state accreditation by one level when the teachers worked with an instructional coach. Nowecien (2005) discovered that student reading achievement increased when teachers were in-serviced using peer coaches. The increase in students and teachers communicating and working in a collaborative relationship meet the criteria established by Fullan (2005), Perkins (2003), and Senge et al. (1999) as significant indicators of learning occurring within organizations. While it can not exclusively be assumed that the PAHSCI increased student achievement, it can be ascertained that when there was an emphasis on students' reading, speaking and collaborating, and writing; a foundation was established for positive student achievement results to occur. The use of instructional coaches was one of the initiatives in place to encourage this process to develop. Research has begun to emerge regarding the influence that instructional coaches may have on student achievement.

The results of this study contribute to this growing body of evidence. Now having answered the primary question about changed strategies for teaching and learning the researcher will address the five remaining questions.

Research Question Number One: What Factors Contributed to the Implementation of the

PAHSCI Theory of Change?

There was significant and consistent evidence discovered during the interviews of the administrators, instructional coaches, and teachers regarding five factors that contributed to the PAHSCI Theory of Change being implemented. The five factors which emerged in this study are leadership, the use of the Pennsylvania Literacy Network (PLN) classes as professional development to drive the initiative, the emphasis on accountability and responsibility of everyone, the development of communication and collaboration, and the involvement and support of the teachers' union.

The leadership was provided by the superintendent, the administrators that were interviewed, and the previous administrators that had since left the district. It was discovered that instructional coaches and representatives of the teacher's union were involved in leadership roles. The administration communicated that they supported the coaching initiative and were as responsible for increasing student achievement as the teachers were. The principals provided for release time for teachers to take the PLN classes. Coaches were asked by the administrators to assume varied leadership roles relative to scheduling and analyzing data while helping to coordinate in-service programs. The teachers commented on the support that the principals gave them along with directives that they should work with the instructional coaches to implement the instructional strategies.

All three groups of respondents identified the value and importance of the professional development provided when teachers, coaches, and some administrators attended the PLN classes. The PLN classes taught teachers varied literacy strategies. The

literacy strategies were used to increase the engagement of students in their own learning. The varied instructional strategies were viewed as a catalyst for teachers to change their instructional practices. There was consistent communication. Everyone needed to be accountable for using the strategies. There was an understanding of the important roles assumed by all the school and family stakeholders to increase the student achievement scores.

The administrators, coaches, and teachers all described the need to be accountable and responsible for changes in instruction. Students demonstrated that they understood the content of each of their classes. The accountability and responsibility qualities were communicated to students so that they understood the expectations that they had to follow in order to demonstrate their learning. There were numerous comments related to how students increased their collaboration and communication with each other and with the teachers.

The respondents gave credit to the professional development available through the PLN classes as increasing the collaboration and communication among everyone in this learning community. Administrators emphasized that teachers would invite them to come to their classrooms to see interesting and engaging lessons. The teachers were proud of these lessons. The coaches discussed how the teachers collaborated with each other. There was an increase in collegial discussions about student learning rather than complaining about students. The teachers described how they sought each other to ask for advice and to share which strategies were successful with students. Additionally, there were numerous comments about how students were increasing their collaboration and communication with each other. The students appeared to embrace and enjoy this social

component of the Pennsylvania Literacy Network. This type of instructional strategy that encouraged students to communicate and collaborate with each other increased their enthusiasm to learn.

The last significant contributing factor involved the teachers' union. The union emerged as supporting the administration and the PAHSCI. The administration described how the union was contacted by teachers who expressed concerns about the PAHSCI. The union recognized the need to support the initiative so that there would be an increase in student achievement. Administrators arranged and supported the attendance of representatives of the teachers' union at networking sessions so that they could better understand the use of instructional coaches. One particular example cited by a teacher involved a powerful conversation with the co-principal over the role of the coaches and how they were being utilized by the administration. This powerful conversation served as one example of how the role of the coaches was clarified so that they would be more involved in supporting teachers rather than assuming other administrative types of duties. Scholarly work has demonstrated the importance of this experience. Perkins (2003) suggested that "organizational intelligence is fostered through conversations, leadership, collaboration, trust, managing conflict, and understanding the nature of change" (p. 19). Senge et al. (1999) recommended that "we learn to craft our conversations to be courageous and compassionate" (p, 252).

The exchange of concerns was significant because the administration was able to accept this concern by the teachers and coaches. The administration was willing to engage in powerful conversations so that the coaching initiative would be successful. It appeared that a potential by-product of this involvement of the teacher's union was that

teachers became more willing to allow coaches to do their jobs. They were reminded that

the coaches were their colleagues. The teachers displayed loyalty to their colleagues who

found themselves in a different and often difficult role as a coach. The involvement and

eventual support by the teacher's union helped to overcome one of the initial challenges

which involved the use of instructional coaches to assist teachers. Perkins (2003)

described this communicative type of feedback as being "careful, respectful, and honest"

(p. 47). This illustrated the moral perspective of leadership described by Sergiovanni

(1992). He stated that "the head of leadership is shaped by the heart and drives the hand;

in turn reflections, decisions, and actions affirm or reshape the heart and the head" (p. 7).

The summary of the contributing factors is illustrated in Table 10.

Table 10. *The Factors that Contributed to the Implementation of the PAHSCI Theory of Change*

Factors that were identified that contributed to the PAHSCI Theory of Change	Administrators	Instructional Coaches	Teachers
Leadership	Yes	Yes	Yes
PLN Classes	Yes	Yes	Yes
Accountability and Responsibility	Yes	Yes	Yes
Communication and Collaboration	Yes	Yes	Yes
Support of the Teachers' Union	Yes	Yes	Yes

Research Question Number Two: What Factors Challenged the Implementation of the

PAHSCI Theory of Change?

The responses of the administrators, instructional coaches, and teachers about the factors that challenged the implementation of the PAHSCI Theory of Change were similar. The variations of the respondents' concerns were determined by their perspectives which were a result of their varied job responsibilities. Three areas that were described related to changes in leadership, the position of the instructional coach, and teacher resistance. The coaches and teachers discovered that administrative duties that were assigned to the coaches were a challenge. Unique to the coaches was their belief that they operated without any authority to influence teachers.

There were significant leadership changes at this high school and within the district after the PAHSCI began. The administrative leadership structure at this high school involved the use of two principals who served as co-principals. The co-principal who was initially in charge of implementing this initiative left the high school to accept a position in another school district. The other co-principal was not completely involved in the PAHSCI. In addition, the person who served as director of high schools, and was instrumental in beginning the initiative, left the district to assume a position with another school district. The principal freely acknowledged how he was trying to implement the initiative without being involved from the beginning. He tried to support the coaches with limited knowledge of the PAHSCI. The principal still had to attend to all of the various responsibilities inherent in leading the high school. In addition, two new assistant principals were assigned to this high school.

The instructional coaches and teachers commented on understanding how difficult

it was for the principal. They still complimented him on his leadership. Several teachers and coaches believed that some of the coaches accepted more significant leadership roles to make the coaching initiative successful. However, both of these groups of respondents acknowledged their uneasy feelings about how the administrative changes would impact them. A concern that both groups mentioned was whether the administration would value the need for confidentiality between the coaches and teachers that had to be present in order for trust to develop. Coaches and teachers expressed an anxiety over how they would be evaluated by the administration. Personal anxiety concerns being a common factor in organizational change were addressed by Senge et al. (1999) and Perkins (2003). They recommended that in order to eliminate anxiety conversations needed to occur in a manner that addressed the concerns in a non-threatening manner.

The second challenge identified involved the newly created position of instructional coach within the district and the high school. Administrators, coaches, and teachers commented on various aspects of the role of the instructional coach including how these instructional coaches were selected. The administrators and teachers described how the teachers felt the instructional coaches were hand-picked by the co-principal and director of high schools for a variety of reasons. Teachers expressed their belief that some of the coaches did not have the necessary qualifications. They suggested perhaps other teachers would have been better selections to serve as instructional coaches. Areas of concern that were discussed related to the age and experience of the coaches, the content knowledge of the coaches, and the personality differences that occurred between some of the teachers and coaches. The coaches even expressed discomfort about what their role was supposed to be, what this initiative was about, and why they were asked to be

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instructional coaches to begin with. They described how they were approached to take the

coaching position without feeling they knew enough about the responsibilities and what

the expectations would be. They had to make a decision in a relatively short amount of

time about whether to accept the challenges of this new position. The coaches believed

they were qualified to assume the position of instructional coach as it was described to

them. These concerns may be related to the perceived resistance of some teachers to

change their instructional strategies.

The third common challenge involved the resistance of teachers to change their

instructional strategies. Administrators discussed in great depth how teachers needed to

change their instructional strategies to move away from an emphasis on using lecture-

based instruction as the primary delivery of lessons. Student achievement scores had to

improve. What had occurred in the past had not worked. Change was needed.

Administrators acknowledged they had to use an authoritative leadership style to move

teachers who were reluctant out of their comfort zone. Some experienced teachers had the

attitude that they did not need to change. Their attitude was that the students needed to

change. The administration held firm. Everyone including administrators, teachers, and

students had to assume responsibility to seek ways to improve learning.

The coaches confirmed the view held by the administration. Historically teaching

had been an isolated activity. It was threatening for some teachers to have someone else

come into their classroom to see what was occurring. The coaches had to establish trust

with the teachers. The teachers were concerned about confidentiality between themselves

and the coaches. Would the events that occurred in their classrooms be communicated to

administrators? Were the coaches meant to be a form of evaluation of their performance?

The coaches had to overcome this teacher resistance by maintaining confidentiality and developing trust. Personality concerns were identified because some coaches had to work with teachers and some teachers had to work with coaches when they did not particularly care for each other. It was not confirmed by the coaches whether they had knowledge about teacher concerns over how they were selected for the role of instructional coach.

Teachers identified some of their colleagues were resistant because they indeed were difficult to deal with and did not want to change. They felt these teachers were a minority. The majority of teachers described the resistance mostly occurred out of a concern for the selection and qualifications of the coaches. Experienced teachers commented about different changes in the past they had been involved with that did not last. They wanted some type of guarantee that if they bought into these changes they would increase student scores. Were they being asked to change just because the administration received the latest and newest grant opportunity? The teachers agreed with the coaches that some resistance occurred because of personality differences between certain teachers and certain coaches. There was an uneasy feeling about the objectives of the administration.

Administrators assigned instructional coaches to other duties not directly related to coaching. The two duties mentioned involved using instructional coaches to do scheduling and to monitor assessment tests. Coaches and teachers felt when coaches were asked to contribute significant amounts of time to these two duties, which they believed were not related to the coaches' duties, time for the coaches to work with and assist teachers was negatively affected.

The last challenging factor identified by only the coaches involved trying to

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accomplish a change initiative without having any authority to mandate change. They believed they were viewed by all parties, including themselves, as being in the middle of a hurricane. They were not administrators. They were no longer teachers that had specific assignments. Therefore in order to accomplish their mission they had to find methods to reach out to teachers. Sometimes even gaining entry into a teacher's classroom became a difficult task. They would violate the bond of trust they were working so hard to achieve with teachers if they asked administrators to intervene. One coach described how hard and tiresome it became to try to help her colleagues. She expressed that she had to "beg, borrow, cajole, and bribe" her way into the classroom.

Table 11 summarizes the challenging factors that were identified by the administrators, teachers, and instructional coaches.

Table 11. *The Factors that Challenged the Implementation of the PAHSCI Theory of Change*

Factors that were identified that challenged the PAHSCI Theory of Change	Administrators	Instructional Coaches	Teachers
Leadership Changes	Yes	Yes	Yes
Role of the Instructional Coach	Yes	Yes	Yes
Teacher Resistance	Yes	Yes	Yes
Other duties that are assigned to the instructional coach	No	Yes	Yes
Lack of authority of the instructional coach	No	Yes	No

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Identifies the Contributing and Challenging Factors to the Sustainability of the PAHSCI?

It first is significant to review the emerging body of research that has identified

characteristics which can serve as a guide to recognize if the PAHSCI may be

sustainable. Michael Fullan (2005) quoted Heifetz (2003) stating that "the problem of

sustainability is the ultimate 'adaptive challenge'" (p.13).

There were similarities in the work of Fullan (2005), Senge et al. (1999), and

Carr-Lambert (2004). They identified the challenges to sustainability and the factors that

led to the sustainability of a reform initiative. Fullan emphasized that the use of pressure

and forced accountability and lack of capacity building throughout a system inhibited a

change process. Senge stated that fear and anxiety, problems with measurement and

assessment largely needing to be quantitative in order to be convincing, and bridging the

gap between zeal or isolation were factors that can halt a new initiative from being

sustainable. Carr-Lambert found in her study that laissez-faire leadership within a

political system which contained elements of corruption along with a lack of vision

caused a school system to be taken over by the state department of education.

The work of Danielson (2006), Wenger & Snyder (2000), Neufeld & Roper

(2003) emphasized the development of a culture that builds a community of learners.

Collegiality and communication within a democratic culture led to increased chances to

sustain the organization's initiatives. The use and development of teacher leaders or

coaches was the catalyst needed to build a community of teachers into a sustainable

learning organization. Neufeld & Roper determined that "sustainability occurs by

increasing teacher capacity and in house capacity by examining the quality of student

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work" (p. 27).

There are characteristics that can be identified to serve as a guide to recognize if a change initiative may be sustainable. The key characteristic is that fear and anxiety should be replaced by an emphasis on positive or progressive communication that has an equal and moral treatment for everyone in the organization. The mission or vision of the organization is known by all, and leaders empower others to collaborate to find solutions to complex problems by building capacity throughout the entire organization. Communication is encouraged around assessment and measurement of short term and long term goals in order to make assessment meaningful to everyone. Organizations that sustain an initiative have a reflective culture that is not defensive when challenged. People are willing to keep an open mind to consider new ideas.

The responses of administrators, instructional coaches, and teachers were related to the sustainability characteristics of leadership and vision, reduction in fear and anxiety, measurement and assessment, and communication and collaboration. The narrative analysis of their comments described the factors that could challenge the sustainability of the PAHSCI.

Leadership and vision were identified as being significant. It was expressed that the school district was restructuring the delivery of all of its instructional programs to meet the needs of the students. The goal was to have all students experience relevant and rigorous assignments to enable them to pass the PSSA test. The principal was described as being the leader of the building who set the tone and imparted the vision to teachers and students. The coaches were instructed to help carry out the vision. The reason was identified that what had occurred in the past had not worked. A new effort had to be made

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to frame the learning to help students to understand the content of each class.

The emerging research identified that the presence of fear and anxiety can be addressed within a change initiative if those concerns were replaced by communication and collaboration. Statements that addressed fear and anxiety were discovered in the narrative analysis. Administrators stated they were aware of fears and concerns. Teachers communicated concerns or fears of the faculty. Coaches expressed the uncertainty of their roles.

Many teachers were beginning to feel safer. Trust was occurring between teachers, coaches, and administrators. This feeling took time to accomplish and did not come without challenges. Fears and concerns that were expressed were related to the school not making adequate yearly progress. Everyone wondered what would happen to their job if the state took over their school. There was anxiety surrounding the abilities of the coaches to maintain confidentiality. Another fear or concern that teachers had to contend with dealt with the issue of the PAHSCI continuing and whether or not all of their efforts would be worthwhile. Teachers wondered if another initiative would come around would they have to change again.

The fears and anxieties of the coaches were numerous. The coaches expressed feelings of sometimes being ostracized by their peers. Coaches experienced tremendous uncertainty about what their exact roles were. They expressed fear of the unknown when they were initially asked to accept the role of being a coach. They had to make a decision in a short period of time. When there was a change in principals there was a fear that the principal did not have the knowledge of the PAHSCI to evaluate their performance in a valid manner.

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The respondents were asked if they were able to measure the success of the PAHSCI. They expressed that they could evaluate the success of this initiative. The use of coaches and district assessment scores were mentioned as one indication that the PAHSCI was successful. Improved instruction was described as an outcome of the use of coaches. One Science teacher explained the measurement extremely well. She wanted to see quantifiable evidence which was unrealistic due to there not being any control groups. She was enthusiastic when she acknowledged the impact of the PAHSCI as being a significant assistance toward increasing student achievement scores.

The last characteristic relative to determining if the PAHSCI met the criteria of a sustainable high school reform initiative related to the fostering of communication and collaboration within a high achieving organization. The respondents indicated that the communication increased because a common language about instructional strategies was present. There were numerous examples stated where collaboration occurred between coaches, teachers, and administrators in formal and informal settings. It was reported that dialogue at lunch time or over coffee often centered on teachers sharing successful experiences with each other.

Research Question Number Four: What Characteristics are Displayed at this Improving High School that Demonstrates Whether the PAHSCI is a Sustainable High School Reform Effort that can Serve as a Model for Other High Schools in the Commonwealth?

Table 12 summarizes the answer to this research question that uses the summary of the narrative analysis in Research Question Number Three. The responses of the administrators, instructional coaches, and teachers are analyzed relevant to the emerging research that was stated in the introduction to Research Question Number Three. There is

significant evidence that the PAHSCI meets the characteristics of sustainability that are

emerging from the change initiatives in education and business. The characteristic that is

not clear is related to a reduction in fear and anxiety. There is not sufficient evidence in

this study to determine if the increase in communication and collaboration that is present

is adequate to resolve the fear and anxiety concerns expressed by the instructional

coaches and teachers.

Table 12. *The Presence of the Characteristics of Sustainability*

Were these characteristics of sustainability present during the PAHSCI?	**Administrators**	**Instructional Coaches**	**Teachers**
Leadership and Vision	Yes	Yes	Yes
Reduction in Fear and Anxiety	Yes	No	No
Statements to Measure and Assess the PAHSCI	Yes	Yes	Yes
Increase in Communication and Collaboration	Yes	Yes	Yes

Senge et al., (1999) addresses the impediment to sustainability that he describes as

"fear and anxiety" (p. 247). This challenging factor may be overcome when an open

environment is created that insures there are no negative consequences for expressing

honest opinions. Leaders need to listen deeply to what is said and what is not said. Senge

uses the term "gray stamps" to refer to minor hurts that people let pile up until one day

they unlease this hurt onto the person or organization who they perceive wronged them

(p. 251). The solution he recommends is to "learn to craft our conversations to be

courageous and compassionate" (p. 252). The issue that remains unanswered relative to

sustainability is whether the increase in the characteristics of communication and collaboration and the ability to measure and assess the PAHSCI related to student learning are able to overcome the fear and anxieties which the coaches and teachers mention.

Research Question Number Five: What are the Characteristics of the Increased Quality of Work that Students Produced?

The responses of administrators, instructional coaches, and teachers indicated numerous examples of the ways teachers planned for students to demonstrate their own learning. There was an increase in written and oral communication. Students were expected to produce a product that demonstrated their understanding of their learning. The hallways and classrooms displayed examples student work. They produced power points and blogged on the web. Teachers designed rubrics to accurately assess the work of the students. Students used higher order thinking skills that expected them to analyze, synthesize, evaluate, and then produce a piece of work that demonstrated that knowledge. Teachers designed assessments that helped students develop and utilize those higher order thinking skills. The increased quality of student work reflected an increase in students being engaged in the activities planned for use in the classroom. There were areas identified that related to an increase in student learning. The Collins writing program was mentioned as an indicator of increasing the ability of students to write. The students interacted with text readings and verbally collaborated with each other by sharing their thought processes. The students were taught how to use and create various types of graphic organizers for locating information and analyzing data.

Table 13 illustrates a summary of the responses of the administrators, instructional coaches, and teachers that are extracted from the narrative description.

Table 13. *A Summary of the Increased Quality of Student Work Attributed to the PAHSCI*

The observed summary of increased quality of student work that can be attributed to the PAHSCI	Administrators	Instructional Coaches	Teachers
Use of the Collins writing program	Yes	Yes	Yes
Use of PLN instructional strategies to engage students	Yes	Yes	Yes
Collaboration on assignments	Yes	Yes	Yes
Graphic organizers	Yes	Yes	Yes
Display of student work	Yes	Yes	Yes

This analysis now states the conclusions that are obtained from this study. The conclusions relate to several previous studies about instructional coaching. The implications and recommendations for future research are then discussed.

Conclusions

Researchers (Coggins, 2004; Edwards & Newton, 1994; Eger, 2006; Lee, 2006; Simons, 2006) have studied coaching as a reform strategy. They found that when all educators in a school district share a unified focus on teaching and learning issues that are fostered through coaching there is promise that school improvement will occur. Resnick & Glennan (2002) proposed that coaching was beneficial for use as a whole school reform model. This research study contributed to an emerging body of research

(Coggins, 2004; Lee, 2006; Brown et al., 2006; Simons, 2006) that explored instructional coaching as professional development. They found that coaching had an impact as a high school reform catalyst.

This research study concluded that the Pennsylvania High School Coaching Initiative, utilizing a model of change, was successful in influencing the change of teachers' instructional practices. The elements of leadership, infrastructure, momentum for change, and knowledge present within the component of district and school enabling conditions were successful. The partner supports of mentoring and responsive problem solving were viewed as in need of continual development. The professional development offered through the Pennsylvania Learning Network in conjunction with the University of Pennsylvania was viewed with a significantly positive response from administrators, instructional coaches, and teachers relative to changing the instructional practices of teachers.

The results at this one high school indicated that the use of instructional coaching as on-site professional development specialists should continue to be examined and refined. It was determined that the coaches offered sustained support to teachers, encouraged literacy rich curriculum and instruction, facilitated professional development, used data analysis, and fostered collaboration. The qualifications and selection of teachers to fulfill the responsibilities of an instructional coach along with a clear identification of the role of the instructional coach received a mixed response of support by the administrators and teachers that were interviewed. The need for this area to be further examined agrees with previous research (Coggins, 2004; Lee, 2006; Neufeld & Roper, 2003; Schen, Roa, & Dobles, 2005; Simons, 2006).

There was significant evidence that the goal of increasing literacy throughout the environment was successful. The objective of using coaches and professional development to improve the use of instructional strategies by teachers that served to engage students in their learning was successful. Incorporating the curriculum and instruction across all content areas was beginning to emerge as being more prominent during the time of this study. The desired outcome of this initiative was to increase student achievement.

The administrators, coaches, and teachers believed the PAHSCI was a factor in the increased achievement of the students in this high school. The respondents provided evidence that it was difficult to isolate the student achievement from other factors that were in place to address the need to increase student academic performance. The evidence obtained in this study addressed the concerns expressed by Neufeld et al. (2003). They proposed that measuring the quality and impact of a coach's work would be difficult. "Without some links between coaching, teacher learning, and student achievement, it is difficult to justify the expense of coaching, especially in times of tight budgets when districts may be tempted to return to older, large group forms of professional development" (p. 24).

This study suggests that a significant contribution can be made to the study of instructional coaches and high school reform by adding to the PAHSCI Theory of Change. There are common characteristics within organizational learning theory and change theory. One intention of this study is to identify the presence of characteristics necessary for this change effort to be sustainable. Recent scholarly work identifies the leadership qualities needed to insure sustainability and to identify how organizations

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become more intelligent (Fullan, 2005; Perkins, 2003; Senge et al., 1999). The points of alignment in these theories relative to the sustainability of a change initiative are the need for leadership, a reduction in fear and anxiety, a method to assess and measure the success of the change initiative, and the fostering of communication and collaboration.

The administrators, instructional coaches, and teachers indicated numerous times and within their responses to varied questions that there was significant leadership. The leadership articulated the vision of the need for accountability and responsibility in order for student achievement to increase. All of the respondents were able to identify numerous ways that they were able to measure and assess the presence of many components of the PAHSCI Theory of Change. The communication and collaboration of administrators, coaches, teachers, and students increased as a result of their participation in the PAHSCI. The challenge was how to overcome the fear and anxiety that occurred when the change began. The ability to foster an environment of trust was identified as being paramount in the success of any change effort. In particular, trust was important when teachers assisted other teachers. The need to establish a trusting relationship was supported by previous research (Coggins, 2004; Lee, 2006; Neufeld & Roper, 2003; Schen, Roa, & Dobles, 2005; Simons, 2006).

It appeared in this study that the numerous changes that occurred in the leadership position of principal played a significant role in influencing the trust that needed to be fostered between instructional coaches and teachers. There was a clear vision at this high school of the need to increase student achievement and the need to change teachers' instructional practices. This vision was accomplished. The exact role and expectations of the coaches changed as the administration changed which made administrative support

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for the coaches, as seen by the teachers, to be inconsistent. The result was a stabilizing of the fear and anxiety described by the coaches and teachers rather than its disappearance. However, credit is to be given to the administrators, instructional coaches, and teachers for their continued effort to have powerful conversations to resolve this issue.

The stories of administrators, teachers, and instructional coaches that describe how they have seen student learning improve are a significant finding of this study. Schlechty (1990) and Daggett (2007) advocate the need to assess the rigor and relevance of the school work that students are to accomplish. The rigor and relevance of school work is difficult to measure by a standardized test. Methods to accurately assess student learning, as well as school and teacher success relative to initiating that learning are identified. Evidence supports that teachers encourage students to be engaged in their learning. Students are able to create a product in as little time as a class period. This demonstrates their ability to evaluate, analyze, and synthesize information. All respondents agree that there is an increase in student reading and writing skills that verifies previous research findings (Knight, 2004; Nowecien, 2005; Simons, 2006).

It is recommended that the Commonwealth continue to examine and refine this model of high school reform described as the PAHSCI Theory of Change. This model that used instructional coaches to insure embedded professional development influenced high school teachers to change some of their instructional practices. Teachers and students became increasingly adept at creating and completing assignments that expected them to think differently about learning.

Implications

Neufeld & Roper (2003) and Schen, Rao, & Dobles (2005) identified the need to study coaching and its impact on increasing the achievement of students. Schen, Rao, & Dobles (2005) "acknowledged that coaching encourages collaboration, cultural change, data analysis to inform practice, promotes learning and reciprocal accountability, and supports collective interconnected leadership" (p. 2). Neufeld et al. (2003) found that the financial support for coaching may disappear unless a link between coaching and student achievement can be established. Showers, Murphy, & Joyce (1996) established that coaching, as professional development, led to teachers using the content of professional development sessions eighty-five percent of the time as compared to the ten percent use of content in conventional professional development sessions. Researcher Jim Knight, from the University of Kansas Center for Research on Learning, indicated that with classroom coaching implementation rates by teachers of newly learned content is eighty-five percent to ninety percent. The PAHSCI presented a reform model for high schools. Students that were engaged and involved created and used knowledge.

There are several implications that contribute to the limited body of research relative to using instructional coaches in an effort to make improvements in the high schools of Pennsylvania. The PAHSCI uses the lessons learned from Coggins (2004) and Neufeld and Roper (2003) to develop a framework using the instructional strategies from the Pennsylvania Literacy Network. Graduate credits from the University of Pennsylvania are earned by the teachers, coaches, and administrators that took the classes. Instructional coaches complement, sustain, and attempt to build teacher capacity

for the instructional strategies. There are lessons learned from this research study that can nurture the future success of the PAHSCI or any other high school reform initiative.

1. Involve the teachers' union early and as often as needed. Communicate and collaborate with the leadership of the teachers' union to establish a momentum for change that must occur in order to create a culture of continuous improvement.

2. Write a detailed job description of the roles and responsibilities of the instructional coach and advertise for the most competent teachers to emerge as teacher leaders to serve in the role of an instructional coach. Give the selection of instructional coaches the time, effort, and respect that is needed for this extremely challenging position.

3. Capitalize on the framework offered by the Pennsylvania Literacy Network in coordination with the University of Pennsylvania to establish the content knowledge of instructional strategies to begin the initiative.

4. Refine and examine the roles of mentors and communicate to the mentors how sensitive their position is when advising principals.

5. Refine and develop the responsive problem solving element of the partner support component of the PAHSCI Theory of Change model.

6. Continue to emphasize the development of content across all curriculum areas. It appears that it takes a minimum of two years within an educational organization that is comfortable with continuous improvement and a change initiative for the content to begin to be shared across curricular areas. It will take organizations that are not as comfortable with change initiatives significantly longer to accomplish this goal.

7. Motivate students to write and motivate teachers to teach students to write. Foster the use of the Collins writing program as a program offered through PLN as a starting point. It appears that writing influences the learning process and Knight (2004) has established an increase in student writing achievement utilizing instructional coaches.

8. Demand that the principal be extremely knowledgeable about the coaching process and understands the support that instructional coaches need in order to foster a trusting relationship with teachers.

9. Insist on confidentiality between teachers and instructional coaches. When an administrator wants to know from a coach what a teacher is thinking or a teacher wants to know from a coach what an administrator is thinking, the coach is placed in a tenuous situation. Do not put them in that situation.

10. If a superintendent wants instructional coaching to be successful it will be successful if the superintendent communicates his/her expectations and support for the coaching initiative.

11. Find ways to use the power of the themes discovered in this research on the value of leadership with vision, increased accountability and responsibility, measurement and assessment of increased student learning, and the value of communication and collaboration to help teachers and instructional coaches overcome any fears and anxieties that are present.

<div align="center">Recommendations for Further Study</div>

The reader is reminded that the limitation of this research is that it is a case study of one high achieving high school in the Pennsylvania High School Coaching Initiative (PAHSCI). Twenty-six high schools started this initiative in the fall of 2005. It will be

the responsibility of the reader to determine if the results of this study may be of assistance when examining the qualities that are needed for the sustainability of a high school reform initiative and its attempt to influence the change of teachers' instructional practices and student achievement. Several areas emerged that are offered as recommendations to continue further study.

This research model could be expanded to study other high schools in the coaching initiative to determine whether this model influenced teacher change and student learning.

Students of the high schools in the PAHSCI could be surveyed or interviewed using the same research interview questions within this research to examine their perspective related to teacher change and student achievement and learning.

A researcher could conduct a quantitative study that uses the interview questions within this study. The interview questions could be re-worked to gain evidence on a larger scale of the influence of the PAHSCI on change of teachers' instructional strategies and student achievement. The challenges and contributing factors to the sustainability of this high school reform initiative could be examined to identify potential solutions.

Two additional areas of potential study emerged regarding the roles, personalities, and content knowledge that are required of instructional coaches and mentors. It appeared that personality traits of the coaches and in some cases the mentors were a factor that had an influence on the success of the PAHSCI Theory of Change.

The last recommended area for further study is to discover how administrators, instructional coaches, and teachers that are involved in high school coaching initiatives in

Pennsylvania or other parts of the nation are able to overcome the issues of fear and anxiety that can lead to an increase in teacher resistance to change initiatives.

Summary

The Pennsylvania Department of Education embarked on a high school reform initiative called the Pennsylvania High School Coaching Initiative (PASHCI). With the generosity and financial assistance of the Annenberg Foundation the stakeholders of the Commonwealth including our legislators deserve to know what occurred within this initiative. This qualitative study attempted to share the comments and stories of the administrators, instructional coaches, and teachers as they identified "how" and "what" occurred at the one high school that most improved its PSSA reading and mathematics achievement scores from 2005 until 2007. The effort was made to link the common points of alignment within the theories of leadership, organizational learning, change, and coaching with the characteristics of sustainability to establish a lens to view the PAHSCI Theory of Change. This study sought to provide information to assist our policy makers as they determine the most efficient way to use tax payer money to meet the achievement goals of the No Child Left Behind Act of 2001.

Legislators and the Pennsylvania Department of Education are courageously seeking to change the high school delivery system related to meaningful instructional strategies that is being questioned and judged by many as not being effective. This judgment is based on the performance of high school students on state assessment tests and the National Assessment of Educational Progress (NAEP). Information is identified in this study that the PAHSCI Theory of Change provides a framework that changes the instructional strategies that teachers can utilize to increase the engagement of their

students in their learning. It is hoped that this information proves worthy for policymakers to consider. The PAHSCI demonstrates the philosophy of Schlechty (1990) "that teachers and administrators need to think differently about their work and work differently because of what they come to think" (p. 107).

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Appendix A
Overview of this Study

The high school that was selected for this study was the one high school in the Pennsylvania High School Coaching Initiative (PAHSCI) that most improved the grade eleven student PSSA scores in mathematics and reading from the years 2005 to 2007. It is recognized that policymakers expect an affirmation of success and are attentive to quantitative results. The Commonwealth of Pennsylvania is to be applauded for it's commitment to the success of all students. The "how" and "what" regarding the influence of the PAHSCI on a high achieving high school needs to be known. This qualitative study is based on interviews of teachers, instructional coaches, and administrators at one of the twenty-six high schools that participated in this high school reform initiative. The reform focused on using instructional coaches in literacy and mathematics as on site professional development specialists. The question remains as to whether the PAHSCI, created by the Commonwealth with support from the Annenberg Foundation, Foundations, Inc., Penn Literacy Network, Philadelphia Foundations, and Research for Action, to improve student achievement on the high school level was successful and whether that success can be sustained. The purpose of this study is to understand the factors that contributed to or challenged the conditions for the PAHSCI to be a positive and sustainable high school reform initiative and to determine the relationship between instructional coaching, teacher change, and student achievement. The experiences of the teachers, coaches, and administrators as they implemented this initiative can assist schools in the future as they try to increase the achievement scores of high school

students to meet the requirements of the No Child Left Behind Act of 2001. The focus on

sustainability will aid the Commonwealth when teachers, coaches, and administrators

identify the contributing and challenging factors to sustaining change within their

organization.

Appendix B
IUP Letterhead
School District Superintendent Request for Consent

December, 2007

Dear Superintendent

Please accept this letter as my written request for your permission to involve secondary administrators, teachers, and instructional coaches from the district in the final phase of data collection for my dissertation research. The study examines their perceptions of their involvement in the Pennsylvania High School Coaching Initiative (PAHSCI). Responses will be elicited from practicing full-time secondary teachers during focus group interviews. Responses will be elicited from administrators and instructional coaches during individual interviews. A semi-structured interview format will be utilized for the focus group interviews of teachers and the interviews with you, administrators and instructional coaches. The questions used will be the same for everyone involved. An overview of the study will be given to all parties involved in the interview process. A copy of the overview is attached for your information.

If granted permission, I will need a letter from you authorizing my research with the administrators, teachers, and instructional coaches. All parties will be made aware that participation in the study is strictly voluntary and that they may withdraw at any time, and that all data collected from them will be destroyed. They will also be informed that participation or non-participation will not affect their relationship with the investigator at IUP or their employer. The cover letter to teachers conveys that findings will be reported in combination with those from other participants, and confidentiality will be maintained. Copies of both letters of consent are attached for your review.

If you have any questions or require additional information, please feel free to contact me at home (814-944-8799), work (814-742-2274), or via e-mail at otto@atlanticbb.net. Your time and cooperation are highly valued and deeply appreciated.

Principal Investigator: Thomas Otto   Project Director: Dr. Cathy Kaufman
Doctoral Candidate, IUP   Professor/Committee Chairperson
428 Pinecroft Avenue   Administration and Leadership Studies
Altoona, PA 16601   126 Davis Hall, Indiana University of PA
Phone: (814) 944-8799   Phone: (724) 357-3928

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).

Appendix C
IUP Letterhead
Invitation Letter to Principals, Teachers, and Instructional Coaches

January, 2008

Dear Educator,

As an administrator, teacher, or instructional coach I wish to applaud you for the increase in student achievement in the PSSA scores of your students in mathematics and reading. Your involvement in the Pennsylvania High School Coaching Initiative (PAHSCI) over the previous two years demonstrates your commitment to increasing the achievement of all students. The story of your involvement in this change process is worthy of study.

You are invited to participate in a research study that examines your perceptions of the change of instructional practices, student achievement, and the potential sustainability of the PAHSCI as a high school reform initiative. It is anticipated that this research will provide insight into the factors that challenged or contributed to the PAHSCI theory of change.

The following information is provided in order to help you make an informed decision whether or not to participate. If you have any questions, please do not hesitate to ask. The Indiana University of Pennsylvania supports the practice of protection for human subjects participating in research. The project has been approved by the Indiana University of Pennsylvania institutional Review board for the Protection of Human Subjects (724-357-7730). There are no known risks or discomforts associated with this research. Your participation in this study is strictly voluntary. You are free to withdraw at any time and may do so by contacting me at the phone number, e-mail, or address below. All data collected pertaining to you will be destroyed. Your decision will not result in loss of benefits to which you are otherwise entitled. Participation or non-participation in this study will not affect your relationship with the investigator at IUP or your employer. A copy of the overview of this study will be provided to you.

Individual interviews will be conducted with administrators and instructional coaches where and when it is most convenient for you and will be audio-taped to ensure integrity of responses. The interview will take approximately one hour. Teacher focus group interviews will be conducted on a voluntary basis and arranged at times convenient to the teachers. The focus group interviews will be audio-taped to ensure integrity of responses. The amount of time of the focus group interviews may go beyond one hour. (Dinner will be provided should the most convenient time for focus group interviews of teachers be immediately after school.) When we meet, you should respond based on your involvement with the Pennsylvania High School Coaching Initiative. All information obtained will be kept confidential and incorporated into data. The information obtained in this study may be published in academic journals or presented at conferences, but your identity will be kept strictly confidential.

Please complete and return the copy of the voluntary consent form in the enclosed addressed envelope within one week of our meeting. You may sign the consent form at the introductory meeting if you desire. A summary of the findings from this study will be made available to you,
to insure accuracy, during a subsequent visit after the data has been compiled and analyzed. At this time you be given an opportunity to check the research findings for accuracy. If you have
any questions or require additional information, please feel free to contact me at home (814-944-8799) or via my home e-mail at otto@atlanticbb.net. Your time and cooperation are highly valued and deeply appreciated.

Principal Investigator: Thomas Otto   Project Director: Dr. Cathy Kaufman
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Appendix D
IUP Letterhead

Informed Consent Form for Interview

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this informed Consent Form to keep in my possession.

Name (PLEASE PRINT) -
_____

Signature
_____

Date_____

Phone number or location where you can be reached_____

Best days and times to reach you_____

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____
_____
Date   **Investigator's Signature**

Appendix E

PSSA Proficient Achievement Score Comparison of PAHSCI High Schools

School	Total Math & Reading Difference (2007 - 2005) % Improved	Math & Reading Difference (2007 – 2005) % Improved		M & R Added 45 + 54 = 99 Proficient % Comparison
1. Selected School	+ 47	29	18	125
2. Erie Strong Vincent	+ 40	26	14	143
3. Jefferson Morgan	+ 37	14	23	116
4. Central Mountain	+ 29	15	14	115
5. Bellwood-Antis	+ 23	20	3	159
6. JP McCaskey	+ 19	17	2	85
7. Hazelton and CTC	+ 16	8	8	109
8. Uniontown	+ 14	7	7	117
9. Philadelphia School District (4 HS)	+ 14	8	6	67
13.Scranton **(OUT)**	+ 11	9	2	139
14.McGuffey	+ 12	14	-2	108
15.Harrisburg (4 HS)	+ 7	5	2	29
19.Burgettstown	+ 6	7	-1	127
20.Mapletown	+ 4	6	-2	66
21.Erie Central	- 1	0	-1	108
22.West Scranton **(OUT)**	- 2	-12	10	128
23.Albert Gallatin	- 3	0	-3	98
24.Charleroi	- 7	- 5	-2	115
25.Reading	- 12	- 5	-7	59
26.McCaskey East **(New)**				

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Appendix F
Suggested Interview Questions

Primary Research Question

How did the Pennsylvania High School Coaching Initiative influence the change of teachers' instructional practices and student achievement within the organizational structure of a high achieving high school?

1. Please describe to the best of your ability how your PSSA mathematics and reading scores improved over the last two years.

2. Who was responsible for or initiated this?

3. How did they accomplish that?

4. Do you have any specific examples of changes or programs that had a positive impact on the increase in student scores? Please describe.

5. Describe how teaching and learning is changing in your school right now.

    a. What is the purpose of the change?

    b. What procedures or guidelines are followed?

    c. What is the greatest change you have seen in your teaching and the learning of students?

 (A diamond mark represents potential follow-up questions.)

   ♦ Are teachers involved as individuals?

   ♦ How many are involved?

   ♦ Can you give any examples of when you worked with someone else on a project or you are aware of teachers working together?

   ♦ What is the role of the principal?

♦ What is the role of the literacy coach-math coach?

Research Question 1

6. What factors contributed to the implementation of the PAHSCI Theory of Change?

Research Question 2

7. What factors challenged the implementation of the PAHSCI Theory of Change

Research Question 3 will be answered after interviews have been transcribed.

What evidence exists in the narrative analysis that identifies the contributing and

challenging factors to the sustainability of the PAHSCI?

Research Question 4

What characteristics are displayed at this improving high school that demonstrates the

potential for the PAHSCI to be a sustainable high school reform effort that can serve as a

model for other high schools in the Commonwealth?

8. What can you identify that has contributed to your success and the school's success

   from your involvement in the PAHSCI?

   a. Who was responsible for that?

   b. How did the event or incident happen?

9. What can you identify that has challenged your success and the school's success from

your involvement in the PAHSCI?

   a. Who was responsible for that?

   b. How did this occur?

c. In what ways was a solution addressed? How do you determine if the PAHSCI

is successful?

Research Question 5

What are the characteristics of the increased quality of work that students produce?

10. Please describe any changes that you designed to influence how students produce

quality work.

11. How do students demonstrate their understanding of the content in which they have

been instructed?