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Teachers' Concerns of Ninth Grade Transitional Programs in Pennsylvania High Schools: A Comparison of Academic Performance, Graduation, and Participation Rates

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TEACHERS' CONCERNS OF NINTH GRADE TRANSITIONAL PROGRAMS IN PENNSYLVANIA HIGH SCHOOLS: A COMPARISON OF ACADEMIC PERFORMANCE, GRADUATION, AND PARTICIPATION RATES

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Title: Teachers' Concerns of Ninth Grade Transitional Programs in Pennsylvania High Schools: A Comparison of Academic Performance, Graduation, and Participation Rates

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ABSTRACT

For school transformation and meaningful reform to occur, school districts must not only determine what changes are required but must plan and implement an intentional, well-designed transition process to help deal with the societal, organizational, and interpersonal barriers affecting schools (Link, 2000). The purpose of this quantitative study was to determine if there was a significant difference when using the 2009, Pennsylvania System of School Assessment (PSSA) results in academic performance, graduation, and participation rates between Transitional and Non-Transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing ninth grade reform strategies using the Stages of Concern Questionnaire (SoCQ).

Descriptive statistics were used to describe each of the variables in the study. T-tests were used to compare the dependent variables among the two types of school structures. Multiple regression analysis was performed to determine statistical significance between the independent and control variable to the dependent variables. The multivariate analysis of variance (MANOVA) procedure was used to determine whether statistically significant relationships existed between the stages of concern and independent variables.

Results indicated that there was no statistically significant difference between school structures and academic performance, graduation, and participation rates, including subgroups of economically disadvantaged, total school enrollment, and Aid-Ratio. Additional results were derived from the SoCQ that included two procedures: analysis of group profile and analysis of individuals' peak concerns. The MANOVA analysis for significant difference did reveal statistical differences in means between levels of experience and three stages of concerns (consequence, collaboration, and refocusing stages). However, no significant relationship was found between gender and the reported stages of concern.

Although findings of this study were not consistent with Fuller's, *Theory of Concern Development*, continued use of the innovation and appropriate staff development are recommended to resolve concerns of the participating teachers. Lastly, recommendations for the future were made along with key initiatives that support the transition of students into high schools.

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It would take innumerable pages to acknowledge everyone who has touched my life and who has been an inspiration in my pursuit of higher education. To those who have supported me in my life's work, it is only fitting that I make a promise to excel as an administrator, educator, and advocate of life-long learners. This promise is the greatest thing I can pass on to future generations and my way of saying thank you to all that have provided me the opportunity and support to do so.

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CHAPTER I

INTRODUCTION

Background of the Problem

There is strong consensus among policymakers that America's high schools must do a better job of preparing students for college and life, while simultaneously decreasing the nation's 8% dropout rate (U.S. Department of Education, 2010). Moreover, the standards-based reform movement appears to be generating achievement gains for elementary students and little in middle schools, while high school achievement continues to stagnate (Jerald, 2006; Daggett, 2004). The pressure to increase student achievement since the onset of the No Child Left Behind Act of 2001 (NCLB) has affected everyone in education in one way or another. This legislation requires that schools reach 100 percent proficiency on the Pennsylvania System of School Assessment (PSSA) in reading and math for all students by the year 2014.

In response to this Act, Pennsylvania High School Graduation Requirements are under serious revision according to the Pennsylvania Department of Education (PDE). The revised plan calls for end-of-course exams. "Keystone Exams" are being developed by the state in ten subjects over a period of three years. PDE has received approval from the U.S. Department of Education to replace the current 11th grade PSSA tests in reading, math and science for 2015. With this approval, all high school students will take Keystone Exams at the end of the appropriate course for school and district Adequate Yearly Progress (AYP) accountability under NCLB. Hence an increased number of schools have been forced to participate in some form of a Comprehensive School Reform (CSR) in an effort to increase student achievement.

Hundreds of different reform models have been developed over the years and most school districts, if not all schools, have adopted one, if not several. What has been debatable throughout the research is the effect comprehensive school reform models have on student achievement (Hall & Rollins, 2006).

For over 20 years, projects such as, "A Nation at Risk" (1983); "A Nation Prepared: Teachers for the 21st Century" (1986); and "Tomorrow's Teachers" (1986) have all been indicators of a need for school reform. Moreover, what is the impact on the students and the districts that must adhere to proficiency in math, reading, and science, make AYP in every designated subgroup, and graduate all students on time? How have the districts adapted to the necessary changes? What districts are experiencing success and what strategies are they using to sustain the success? These are several of the questions that this researcher hopes to uncover.

Many students find the journey from the middle grades to high school difficult. Increasingly, these students lack the knowledge and study skills necessary for doing high-school-level work, while experiencing emotional, physical, social and intellectual changes. Schiller (1999) noted that the consequences of these changes, combined with the new responsibilities and freedoms that accompany the move to high school, often result in students going through a traumatic period of time as they make the adjustments necessary to find success. Parents and schools are at a loss for the "fix"; however, the advocates for ninth grade transitional programs believe that teacher mentoring, common planning time for teachers and creating small learning communities for ninth graders are just a few strategies necessary to turn the corner for high school improvement.

Southern Regional Education Board (SREB) (2004) research provides extensive proof of the need for measures to be taken to help ease the transition of students to and through ninth grade and have released the following:

- more students fail ninth grade than any other grade of school;
- poor and minority students are twice as likely as others to be retained;
- students who repeat at least one year, are three times more likely to drop out of school than students who have not failed a grade;
- 60% of students with multiple risk factors in eighth grade graduate from high school on time compared to 90% of other students;
- half of the teens and young adults with criminal records and/or substance abuse problems do not read well; and
- among 14-15 year-olds who struggle with basic reading and mathematics skills, 20% drop out of school within two years (p. 6).

As a result of these findings, hundreds of high schools have developed some type of school reform initiatives to counteract these challenges. Most of these programs have similar criteria of a small interdisciplinary team of teachers representing the core curriculum, professional development for teachers, additional instruction in math and reading, etc. (Berliner, 1993). Figure 1 provides a framework for understanding the process of implementing Comprehensive School Reform (CSR) models. It ranges from model selection to implementation procedures to a final outcome. As shown in the beginning phase, the process starts with a district or a school decision to engage in a CSR model. Most schools look for an appropriate model to meet the school's needs and begin to prepare for

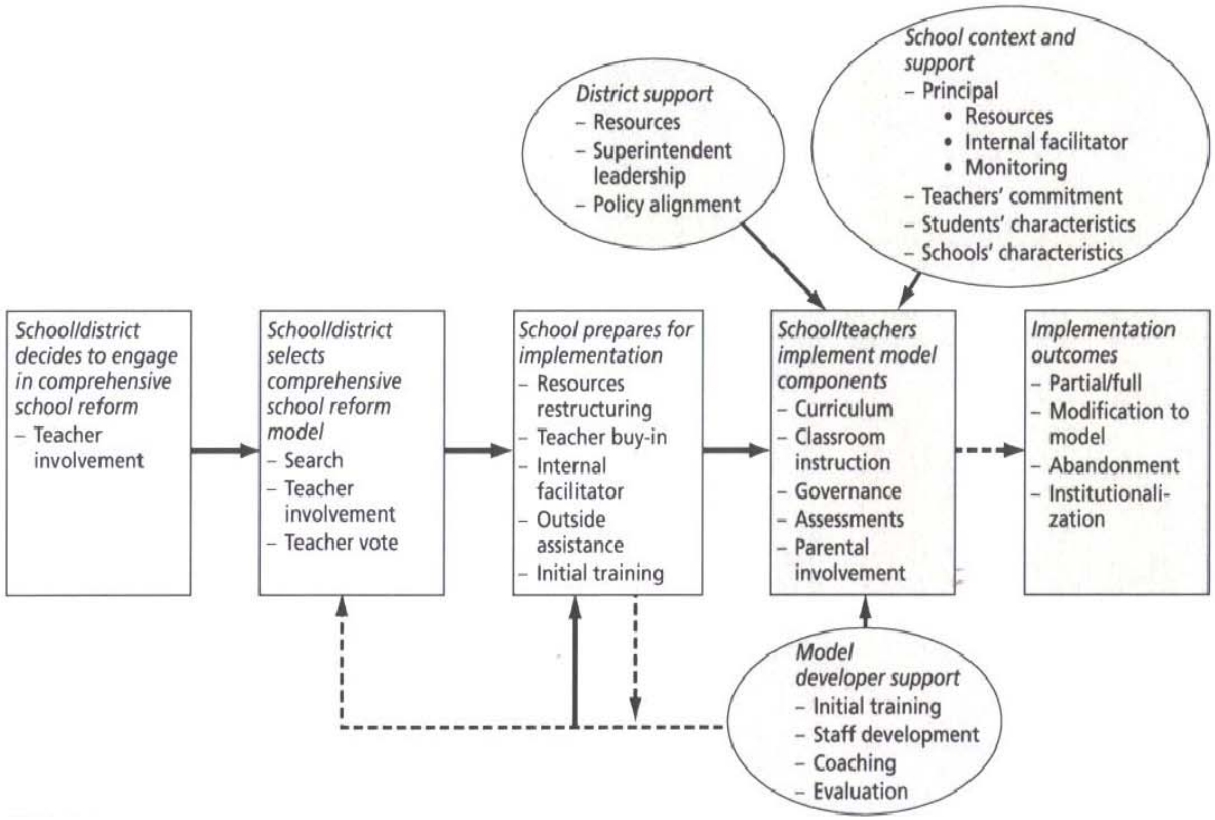

Figure 1: Framework for analysis of process of CSR model selection and implementation.

implementation. Each phase having the collaboration of both the teachers and the principal. Implementation includes curriculum, instruction, grouping of students, governance, students' assessments, parental involvement, and similar processes.

Despite these efforts, Boyer (1990) cautioned that participants have a tendency to fall back into an incompetent system, which is an old way of teaching that has shown no evidence of achievement or growth on an assessment. These researchers guide the inquiry into individually received indicators about the context of changed practices. To accomplish transformational shifts as mentioned, schools must address core beliefs, share visions for change and refinement, collect and examine new data and revisit old data, determine new staff development content to close gaps between reality and the shared vision while taking teachers through trudges of change. Educators must accept the reality that in many cases, students are not going home to a strong supportive family. Often students find the sense of family and security that is missing from their daily interactions coming from within the public school setting. Given the amount of time children spend at school and in after school activities, what better place to reinforce the essentials needed to be productive citizens.

This study is intended to add a unique perspective to current research on ninth grade transitional programs and fill the "gap" to some degree in determining the effectiveness of these programs while describing, explaining, and predicting probable teacher behaviors throughout the school change process.

Purpose of the Study

The purpose of this study was to determine if there was a significant difference using PSSA academic performance, graduation, and participation rates between Transitional and Non-Transitional high schools within Pennsylvania while identifying concerns that teachers

experienced when implementing ninth grade reform strategies. At the current time, there have been no research efforts devoted to transitional programs and teacher concerns during implementation in Pennsylvania high schools.

Advocates of transitional programs have asserted that school reform and the improvement of schools has been the focus in education for decades. Rhetoric has remained high but few genuine successes have materialized (Link, 2000). Why are so many leaders and school personnel exploring logical and seemingly progressive solutions only to fail or find limited success? High school reform has moved to the top of the education policy agenda, commanding the attention of the federal government, governors, urban school superintendents, philanthropists, and the general public (Roderick, 2005). Each of these stake-holders are alarmed by the high dropout rate, by the low academic achievement of many high school students, and by the large number of high school graduates who are required to take remedial classes in college. NCLB is forcing school personnel to develop a district-wide consensus of goals and visions to improve student achievement and to narrow gaps.

Theoretical Framework

While the researcher's review of the literature will indicate that a variety of theoretical models have been proposed for understanding the dynamics of change within the educational institution, one model stands out as most appropriately aligned with the purpose and goals of this study, the concern development theory. It hypothesizes that, during a change, teachers develop three stages of concern as they progress in implementation. Teachers experience self-oriented concerns at the beginning of an innovation implementation; then as they progress in the implementation, they develop higher task

concerns; and, ultimately, with enough experience, concerns shift to the highest levels of impact concerns.

The concern theory emerged in 1969 from the research of Frances Fuller, who studied the concerns of pre-service teachers about their teacher education program. Fuller conducted two studies on small groups of student teachers during the provision of a student teaching program. She also analyzed several findings of other investigators in the field of pre-service and in-service teachers' concerns. The first study held counseling seminars with three groups of student teachers in varying semesters of their teacher preparation program. The results of this study indicated that, in the early weeks, students tended to be more concerned with themselves continuously until they approached the end of their student teaching, when they shifted to more concern for their pupils. In the second study, Fuller collected written concerns statements of 29 student teachers from an open-ended survey. The data were collected at the beginning of the semester and some at the end of the semester indicating once again how concerns move between levels as the person becomes more confident and experienced.

The notion behind the theory of concern development focuses on personal characteristics of teachers, their problems, their needs, and their satisfaction. The development of this theory suggests that different teachers have different concerns and need different interventions. Therefore, identifying teachers' stages of concern is necessary in order to provide appropriate support and assistance to facilitate the adoption of an innovation.

The Concerns-Based Adoption Model, better known as CBAM is arguably the most robust and empirically grounded in the theory of concern development and serves as an appropriate model for this study of change in an educational setting. The model is concerned

with measuring, describing, and explaining the process of change experienced by teachers involved in attempts to implement new curriculum materials and instructional practices, and with how that process affected by interventions from persons acting in change-facilitating roles (Hord, Rutherford, Huling-Austin, & Hall, 1987). Change is best carried out by individual teachers, and identifying teacher concerns about an innovation is essential in facilitating the adoption process. Sashkin and Egermeier (1992) agreed that the CBAM is the most effective tool in identifying individual users' needs and can best facilitate the adoption process.

For any new initiative to be successful, change must occur within an organization. Generally, change involves learning. Individuals who experience change must be supported through the various learning stages in order to fully assimilate the new initiative (Loucks-Horsley, 1996). The CBAM was developed after several years of studying how schools might initiate change processes leading to improvement, and is based upon several assumptions about change (Hord, Rutherford, Huling-Austin, & Hall, 2006), given in Figure 2.

The CBAM identifies seven stages of concern: refocusing, collaboration, consequence, management, personal, informational, and awareness. These stages hold major implications for the professional development of educators. As individuals consider and experience change, they naturally become curious and begin to ask questions that evolve as the innovation becomes assimilated. The type of question being asked reveals the development stage that an individual is experiencing at any given time (Loucks-Horsley, 1996). Continued research on the change process is discussed in detail in Chapter 2. It addresses the importance of identifying individuals' concerns, perceptions, feelings, and

attitudes towards the implementation of an innovation and highlights that in order to effectively manage change; the human component must be understood and given top priority (Hawes, 1993).

1. Change is a process, not an event: it takes time for change to actually occur, usually a period of several years
2. Change is accomplished by individuals: individuals must be the center of attention in the process of the implementation of an innovation
3. Change is a highly personal experience: change concerns require different interventions and support for different individuals
4. Change involves developmental growth: feelings shift with respect to the new program or practice as individuals pass through an ever-greater degree of experience
5. Change is best understood in operational terms: change must be introduced in practical terms to be understood by individuals
6. The focus of facilitation should be on individuals, innovations, and the context: Only people can make change by altering their behavior. The real meaning of any change lies in its human, not its material, component.

Figure 2: Concerns-Based Adoption Model: Assumptions about Change (2006).

Understanding the nature of the concerns of educators as they experience the implementation of change or an innovation can provide valuable insight for institutional leaders and can provide guidance for actions that might be taken to facilitate the change process. Concerns of individuals as they experience change do not exist in a vacuum; rather,

they are outcomes of their feelings about the innovation. It includes their perceptions about their ability to use it along with a number of other changes that will occur as a result of the setting in which change occurs, and the type of assistance and support that they receive while implementing the change (Hord et al., 1987). The findings should be informative for those wishing to employ similar strategies or programs at other institutions, and should strengthen the understanding of the educational change process. The Stages of Concern Questionnaire (SoCQ) developed by Hall et al. (1979), are based on data collected from research on American subjects, and this questionnaire has been proven valid and reliable in providing meaningful data about teachers' concerns and was used as a part of this study. An elaborate profile of the Concerns-Based Adoption Model is compiled in Chapter 2.

Research Questions

Question 1: Based on 2009, Grade 11 PSSA scores, is there a significant statistical difference in the identified Transitional high schools' proficiency in Math, Reading, Graduation, and Participation Rates than Non-Transitional high schools?

Question 2: Based on the demographics (percentage of economically disadvantaged students, total school enrollment, and the district's Aid Ratio) of the participating high schools, is there a significant statistical difference between transitional and non-transitional schools?

Question 3: Based on the Stages of Concern Questionnaire (SoCQ), what are the teachers' concerns toward the implementation of ninth grade reform strategies in Transitional High Schools within Pennsylvania?

Question 4: Based on the Stages of Concern Questionnaire (SoCQ), are there significant relationships between teachers' stages of concern and their years of experience in a transitional program and gender?

Method of the Study

To add to the research regarding the effectiveness of ninth grade transitional programs, this quantitative design was selected and is best suited for the purpose of this study – examining teachers' concerns, including their perceptions, feelings, and attitudes while also gathering archival data. "Quantitative data are said to be objective, which indicates that the behaviors are easily classified or quantified" (Gliner & Morgan, 2000, p. 9).

This study has surveyed high school principals in the Commonwealth of Pennsylvania via e-mail that have a ninth through twelfth grade configuration and are considered a 'public' school district. For the purpose of this study, any participating high school in Pennsylvania exhibiting a raw score of less than 49 points on the Ninth Grade Reform Strategies Survey (Appendix E) was considered a Non-Transitional High School. While any participating high school in Pennsylvania exhibiting a raw score greater than or equal to 50 points on the ninth grade reform strategies survey was considered a Transitional High School. Total points collected from the responses of the survey separated the high schools into two groups: high schools having a ninth grade transitional program and high schools not having a ninth grade transitional program. Once the schools were identified as transitional and non-transitional, they were secondarily stratified to include existing data on the percentage of economically disadvantaged students, total student enrollment, and the district's Aid Ratio. These demographical characteristics (control variables) were obtained from the Schoolmatters.com website and the PA School Profiles website. To satisfy the first

two research questions in this study, academic performance rates, graduation rates, and participation rates (dependent variables), were extracted from the Pennsylvania Department of Education website and were used to compare transitional and non-transitional high schools.

Following the determination of transitional versus non-transitional high schools, participating teachers of the selected transitional high schools, were asked to voluntarily participate in the Stages of Concern Questionnaire (SoCQ) (Appendix O) to evaluate their concerns toward the implementation of ninth grade reform strategies in their high schools.

Definition of Terms

Terms are listed and defined as they are used in this study.

Adequate Yearly Progress (AYP): The Performance Level + Attendance Rate on the PSSA + the Graduation Rate = AYP, in Pennsylvania all high school students must be proficient before graduation. "Proficient" meaning satisfactory academic performance in PA's Academic Standards.

Adolescent Development: The development of children ages 12-18 years old and is expected to include predictable physical and mental milestones – The MedlinePlus Medical Encyclopedia (2006).

Adoption: The process of an innovation acceptance and implementation in daily practice.

Aid Ratio: A term used to convey the relative wealth of each school district in Pennsylvania. It is part of the formula used to determine how funding is distributed among the school districts.

Appropriate Intervention: Supportive actions that are taken to facilitate change process.

Change: Development process that takes time to occur.

Comprehensive School Reform (CSR): Whole-school reform that is based on a coherent vision of its mission and educational strategy that addresses every aspect of its operations.

Concerns: The composite description of the various motivations, perceptions, attitudes, feelings, and mental gyrations experienced by a person in relation to an innovation (Hall, 1979).

Concerns-Based Adoption Model (CBAM): A model of change that was developed by Hall, Wallace, and Dossett (1973) to identify concerns that individuals experience during the change process (Hord et al., 1987).

Graduation Rate: The Graduation Rate applies to schools that have a high school graduating class, and includes only students enrolled as members of that class. Measured by PDE as a target of 80% or any improvement from the previous year will be the definition used in this study.

Incompetent System: The reason for the necessary reform. An old way of teaching that has shown no evidence of achievement or growth on an assessment.

Innovation: Any process or product that is new to a potential user (Hall, 1979).

No Child Left Behind Act of 2001(NCLB): Reform act enacted by Congress that focuses on key academic, instructional, and environmental goals which include:

- All students will attain proficiency or better in reading and mathematics by 2013-2014
- All limited English students will become proficient in English
- All teachers will be highly qualified by 2005-2006
- All students will be educated in safe, drug-free environments
- All students will graduate from high school

Participation Rate: As measured by PDE, at least 95% of students overall and within each measurable subgroup must take the test.

Pennsylvania System of School Assessment (PSSA): Grade level assessments that measure the Pennsylvania State Standards.

Performance Rate: Measured by PDE, to meet the Performance Target required for AYP, schools and every measurable subgroup in the school must have at least 56% of the tested students achieve a Proficient score or higher on the mathematics assessment and 63% of the tested students achieve a Proficient score or higher on the reading assessment for the 2009 testing year.

Theory of Concern Development: Early in a change effort, teachers have more intense self concerns about an innovation. As implementation progresses, their concerns tend to shift more to the task of using the innovation. Ultimately, if the innovation is appropriate and the necessary supports are available, various kinds of impact concerns can become most intense (Hord & Hall, 1987).

Transition Process: A three-phase process that people go through as they internalize and come to terms with the details of the new situation that the change brings about. It starts with an ending and finishes with a beginning (Bridges, 2003).

Ninth Grade Transitional Program: Intervention strategies designed to meet the needs of all students as they move from 8th to 9th grade and throughout high school.

Non-Transitional High School: Any high schools in Pennsylvania exhibiting a raw score of less than 49 points on the ninth grade reform strategies survey.

Transitional High School: Any high school in Pennsylvania exhibiting a raw score greater than or equal to 50 points on the ninth grade reform strategies survey.

Limitations of the Study

Because this study recruited the participation of high school principals and teachers, their participation was crucial in having a sufficient representation. Data collection relied on the principals' willingness to respond to the transitional survey and teachers' willingness to respond to the SoCQ. Participants volunteered and independently completed the questionnaire; therefore, the results of this study can be affected by whether the teachers' responses represent true reflections of their present concerns and their interpretation of the questions. There is always a possibility that requested participants not respond. In a case study approach, there are potential limitations that the findings may not be able to generalize to a larger population. Another limitation may be that other reform efforts influence the principals' responses on the survey when determining if the high school is categorized as transitional or non-transitional.

Additionally, this researcher has implemented ninth grade transitional strategies in a high school in which she works and may have an influence on data interpretation. A final limitation to this study is that there are no clear criteria in determining a Transitional High School.

Summary

This chapter created the foundation of this study by considering the background of the problem, the purpose and theoretical framework for the study, and the research questions. The method of the study, the definition of terms, and the anticipated limitations were also discussed in this chapter.

This study will determine if schools using ninth grade transitional strategies show higher academic performance, graduation, and participation rates than non-transitional high

schools while subsequently identifying concerns that teachers experienced when implementing transitional strategies in transitional schools. The SoCQ measured seven stages of concern that reflect three dimensions: self (awareness, informational, and personal); task (management); and impact (consequence, collaboration, and refocusing). The next chapter is a review of the literature for this study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Why do some school reform efforts fail? In most cases, school districts do not have the proper resources to accomplish their goals and occasionally access the wrong resources. Conversely, impulsive top-down decisions are sometimes made that are also very costly to districts and serve to be ineffective. Through conducting a survey to identify ninth grade transitional and non-transitional high schools, this quantitative study extracted existing data from the Pennsylvania Department of Education on academic performance, graduation, and participation rates in a comparative analysis. The purpose of this study was to determine if there was a significant difference in performance between transitional and non-transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing ninth grade reform strategies using the Stages of Concern Questionnaire (SoCQ), a component of the Concerns-Based Adoption Model (CBAM).

The review of the literature is organized into six major sections: (a) the relevant history surrounding school reform (specifically high school reform); (b) transitional programs; (c) adolescent development; (d) change theories that are linked to the organizational practices within schools; (e) the Concerns-Based Adoption Model (CBAM); and (f) level of experience/trainings and gender differences as factors related to stages of concern.

Historical Perspective of School Reform

The United States has made a number of attempts to reform its schools over the past 30 years. Although the reforms have been interrelated and overlapping in most cases, their

effects have been characterized as constituting separate "waves" (Desimone, 2002). One of the largest and most sustained reform waves in American educational history began in the nineteen fifties with the launch of the Soviet satellite, The Sputnik, and continued through the nineteen sixties. The Kettering Foundation's report of 1970 on Secondary Educational Reform concluded that this "decade of change and innovation in the schools had little or no lasting effect on the content of the school programs or the quality of teaching and learning" (Rich, 1979, p. 31). First-wave reforms called largely for systematic changes such as increasing standards and regulations that resulted in increased teachers' salaries, increased core requirements, and a lengthened school day and year (Boyer, 1990; Hawley, 1988; & Kirst, 1990). However, these first-wave reforms were criticized for not adding any capacity to the system and for relying primarily on top-down approaches. Over the past two decades, the waves continue to hit the shore with no significant changes. As mentioned earlier, "A Nation at Risk" (National Commission on Excellence in Education, 1983), was an intensification of the system that was in place; "A Nation Prepared: Teachers for the 21st Century" (1986); and "Tomorrow's Teachers" (1986) were all reports that indicated the need for continued improvement and reform in public education. The nineteen eighties and nineteen nineties brought about Outcome-based education that was student centered and focused on the empirical measurement of student performance based on constructivist methods. Critics of Outcome-based education argued that standardized tests did not measure mastery of objectives and that these objectives could be set too low or too high.

Consequently, the second-wave of reforms was initiated. The second-wave focused primarily on broadening and deepening the relationship between schools and families, addressing the needs of special groups of students, attracting and retaining effective teachers,

upgrading teacher education, and restructuring teachers' roles to make them more professional (Carnegie Corporation, 1986; Metz, 1988; & Hawley, 1988). Despite these two recent waves of reform, school organizations did not change much (Cuban, 1990), and neither did the way that teachers taught (Tyack & Tobin, 1994). The 1980's ended with "go back to the basics," "enrich the curriculum," "and redo whatever was undone by the last reform" (Lutz, 1986, p. 1).

Lastly, President Bill Clinton launched "*Goals 2000: Educate America Act.*" It was designed to provide a framework for increasing student progress. History related to each of these reforms has laid the ground work for President Bush's No Child Left Behind Act and an era of accountability and standardized tests.

Desimone (2002) contended that in response to the failure of these earlier reforms and because of a renewed focus on the importance of restructuring schools to foster changes in teaching and learning, the nation has embarked on what might be considered a third wave of reform: comprehensive school wide reform (CSR). In contrast to past efforts, comprehensive school wide reform focuses on improvement for entire schools rather than on particular populations of students within schools; and, it is not limited to particular subjects, programs, or instructional methods.

Comprehensive school reform programs are, for the most part, an outgrowth of the effective schools movement. Shared goals, a positive school climate, school-level management, strong district and principal leadership and support, articulated curriculum and organizational structure, maximized learning time, school wide staff development, and parental involvement were specific characteristics associated with the effective schools movement (Edmonds, 1979, 1981; Fullan, 1994; Purkey & Smith, 1983). A criticism of the

effective schools literature is that it did not prescribe the practical methods by which schools can become successful (Desimone, 2002).

Concerning the implementation of Comprehensive School reforms, researchers have taken to heart the lessons learned from previous evaluations of large-scale education reforms and focused initial studies on program adoption and implementation. Depending on the type of CSR model, components may include management techniques, reorganization, parent involvement, teacher collaboration, and decision making. Updated implementation procedures also focus on changes in classroom teaching, including the content covered, instructional strategies, and assessment methods. Measuring implementation means measuring the extent to which a school is adhering to a particular CSR design (Desimone, 2002). Studies have shown that there is a great variation in the level and consistency of implementing CSR models, both within and between schools.

Although few evaluations have been done on past reforms, the reformers almost always declare themselves successful and the state of education infinitely better because of their efforts (Lutz, 1986). Not much attention is given to the cost and time of the implementation of these programs, let alone if these programs had any benefit on student learning. Sarason (1990) argued that educational reform is as much a political as an educational process and reform often fails because politics favors symbols over substance. He continued to state that reform efforts have long been stifled by the needs of various groups to defend their self-interests and preserve their power.

As mentioned earlier in this study, recent reform efforts have come about under the No Child Left Behind Act of 2001 (NCLB). The task of transforming schools became the obligation of every school district in America under NCLB. Its main purpose is to close the

student achievement gap through four specific tiers: flexibility, parent choices, research-based reforms, and accountability. It was designed to improve public schools by enforcing a system of standards and accountability through high-stakes testing. Initially, NCLB was highly regarded due to the fact that its promise was to improve the way schools serve poor children in our country. According to Meier, Kohn, Darling-Hammond, Sizer, Wood, et al., NCLB is far from improving public schools and increasing the ability of the system to serve poor and minority children. They feel that the law is doing exactly the opposite. Moreover, the data does not give the school districts the truth about student performance and cannot account for the complexity and variation that influence each classroom, school, district, or community. It lacks information concerning the quality of teaching, the appropriateness of learning strategies, or the resources that were made available to teachers and schools to meet the learning needs of students (2004).

Lastly, a key component in school reform is gathering and analyzing student data. With such abundance, data-based decision making has been frequently discussed over the past decade, and many research studies confirm the importance of the practice to school improvement (Brisnon, Kowal, & Hassel, 2008). To clarify decisions, identifying alternative solutions to problems and targeting resources more effectively all make sense when analyzing data. When using data, two key elements should be considered: establishing a process for data use and ensuring that conditions to support effective data use are present. Mills (2006) stated that "School systems are awash in data. So much so, in fact, that some principals feel like they are drowning in it. Unfortunately, although most schools are data rich, they are also information poor" (p. 45). Nonetheless, the U.S. Department of Education

(2008) explained that "the examination of data is not an end in itself but rather a means to improve decisions about instructional programs, placements, and methods" (p.6).

Literature on High School Reform

This first decade of the twenty-first century will most certainly be dedicated into the history of American education as the era of high school reform. According to Roderick (2005) the national consensus is that public high schools, especially in urban areas, are broken institutions plagued by high rates of dropout, persistently low performance, and disengaged students who are seldom challenged or held to high standards. High schools are increasingly identified as the weakest link in our education system, a rudderless ship, impervious to reform.

The American high school is not as impervious to change as many believe it to be, the new research shows. Reforms in many cities have replaced the large, "comprehensive" high school with smaller, more personal learning communities where anonymity gives way to a sense of shared purpose, and as a result, teachers and students are motivated to work harder (Jerald, 2006).

With the movement towards a "global economy," NCLB has increased the focus immensely on high schools. New ideas at the school, district, state, and federal levels are constantly being derived and discussed for all participating schools. The move to test-based accountability has created an even greater demand for solutions. As high schools around the country begin to struggle with demands to raise test scores, administrators are looking to the research and reform efforts for direction (Roderick, 2005).

The facts that seventy-five percent of the top 50 fastest-growing jobs require education beyond high schools, and only approximately 3 in 10 high school graduates are

ready for college are alarming statistics that have increased the need for assistance in most high schools. Currently funding major educational initiatives, Microsoft owner, Bill and wife Melinda Gates have publically shown a concern for ill prepared graduates from the U.S. public school system (as cited in the Knowledge Works Foundation Report). Schools in this report have been identified as schools in crisis for not providing a meaningful classroom experience, having poor student attendance, permitting a culture of low expectations for performance within schools and school systems, and for having significant achievement gaps across racial and socioeconomic groups (urban and non-urban populations). The report also offers four recommendations that share a common theme with other reform movements: Improve Relationships with Personalized Learning Environments; Create a More Rigorous, Relevant Curriculum; Increase High School Graduation Rates; and Bridge the Gap between High School and Postsecondary Education (as cited in the Knowledge Works Foundation Report).

According to the 2004 survey, "How Prepared Are Public High School Graduates?" by Hart Research & Public Opinion Strategies, more than one-third of both college and non-college students say they have large gaps of preparation in at least one crucial skill (cited by Folly, 2007). The survey continues to illustrate that college instructors believe 42 percent of their students are not adequately prepared, and employers estimate that more than one-third of high school graduates are not prepared for their current jobs.

The questions most often posed by reformers, district-level administrators, and high school principals as they survey their options are "What works in high schools?" The true issue is "Where are we trying to go?" What should educators and policymakers be trying to accomplish as they reform high schools and what does research identify as the critical paths

to those outcomes? (Roderick, 2005). Folly (2007) stretched that thinking even further to ask the following: "Why is the school year still roughly nine months when we know students benefit from more quality instruction? Why is the school day still 7 a.m. to 3 p.m.? Do all students need four years to finish high school? and What should a high school diploma signify" (p. 57)?

There are concerted efforts across the country aimed at reforming high schools to promote student engagement and achievement (National Research Council [NRC], 2004). These reform efforts vary, but many are guided by principles such as:

- having high and consistent standards and expectations for all students;
- creating learning communities within schools and stronger personal relations between teachers and students so that adolescents feel connected to their schools;
- creating curricula that students find meaningful and engaging; and
- promoting family and community involvement in the schools (NRC, 2004).

The NRC (2004) also gave the strong suggestion to do away with tracking and ability grouping to the largest extent possible. Unfortunately, to date there is not extensive research evaluating the effectiveness of many reform efforts with respect to student learning, engagement, and adjustment.

In Pennsylvania alone, the Department of Education is attempting to evaluate programs such as Project 720, Dual Enrollment, Block Scheduling, Classroom Plus, and Classrooms of the Future which are just a few of the programs specific to the high schools for which the state is allotting grant monies. As these reform programs await validation; the next challenge will be "scaling up" successful reforms to larger settings. Smaller school

environments are experiencing the most success in their reform efforts. The process of scaling up reform efforts in larger schools is very complex; however, much remains to be learned about how to do this effectively (NRC, 2004).

One popular reform effort that has been launched out of Johns Hopkins University is the Total Development High School (TDHS) model. This ninth grade instructional program in reading and mathematics requires that all freshmen be placed in small interdisciplinary teams of 4 or 5 teachers, participate in extended math and reading opportunities, be located in separate parts of the building, and have teachers who are scheduled with common planning time (Glickman, 2002). Participating school districts in major cities have credited programs such as these or components of these programs to provide success for freshman students, which sets the standard for the following school years.

Schmoker (1999) suggested that for a reform to be effective, the instructional leader must focus on two key elements simultaneously: improving student achievement and sustaining the reform effort. He highlights seven steps for sustaining reform:

- choose a goal;
- relate in new ways;
- believe in the goal;
- be relentless in your focus;
- begin with the end in mind;
- active leadership leads to success; and
- embed professional development into daily routine.

Evans' (1996) research concurred that more and more educators seem to know what changes to make, but often did not follow Schmoker's suggestion of how to cause the change

and how to make it last. In the book, *Places for Learning, Places for Joy*, Theodore Sizer stated that true reform is arduous. In many states, educational change takes the form of raising teacher salaries, lowering classroom sizes, or pouring more and more money into the general operating budgets of most schools (1973). Surprisingly, thirty years of research between the two authors has not successfully brought about an astronomical improvement in high school students.

Lastly, *America's Most Successful High Schools,* authored by Dr. Willard Daggett (2004), suggested nine characteristics that were similar across his research of the, "30 MODEL HIGH SCHOOLS." Each of the high schools:

- focuses instruction around students' interests, learning styles, and aptitudes through a variety of small learning community approaches;
- provides an unrelenting commitment by administrators and teachers to excellence for all students, with a particular emphasis on literacy across the curriculum;
- has a laser-like focus on data at the classroom level to make daily instructional decisions for individual students;
- has an extraordinary commitment of resources and attention to 9th grade students;
- has a rigorous and relevant 12th grade year;
- provides high-quality curriculum and instruction that focuses on rigor, relevance, relationships, and reflective thought;
- has solid and dedicated leadership;
- has relationships driven by guided principles; and

- sustains and supports professional development.

Despite all of these efforts to reform high schools, very few steps have been made to formally evaluate these programs. Patton (1996) noted that the use of program evaluations is related directly to credibility, evaluation validity, and their uses. He defined credibility as a complex notion that includes the perceived accuracy, fairness, and believability of the evaluation, while validity is seen as worthiness of being recognized. It highlights the entire evaluation, not just data from an evaluation, and also focuses on the stance of the evaluator, the nature of the process, the design, and the way in which results are reported. Use of an evaluation depends upon the purpose and the audience. Researchers have been known for conducting truth tests (whether data are believable and accurate) and utility tests (whether data are relevant) in deciding how seriously to consider research and evaluation findings.

"High schools are a 'last chance opportunity' for public education to deliver the goods to young people and the quality of education we provide them will largely determine their success as productive citizens in our society." – Alethea Frazier Raynor, Annenberg Institute for School Reform, 2007.

High School Transitional Programs

Throughout a student's educational career, he/she will be forced to make several transitions through grades and buildings. Adolescents display varying degrees of intellect as well as physical development during this time. There are also many outside influences such as family circumstances, the media, peer pressure, etc. that consumes the life of an adolescent. Hence, the first year of high school, whether ninth or tenth grade, has proven to be the pivotal year in terms of adjustment and achievement (Alspaugh, 2000). Nationally, as many as sixty percent of students identified as at-risk in middle school do not graduate with

their class or at all (Allen, 2001). Researchers have attributed this poor transition to a weakness in basic skills in grammar, math, and writing; too little rigor in middle school courses; increase in number of repeaters; continued increase in class sizes; too little communication with parents and middle school teachers; and high levels of immaturity and irresponsibility, to name a few (Schiller, 1999). The concern quickly shifted to what the school should change.

A recent and significant modification of time in high school was the implementation of block scheduling. It later showed that graduates, college instructors, and employers recognized that block scheduling had not bridged gaps between what students received during high school and what they needed to be successful. A second reform specific to high school has been the implementation of Ninth Grade Academies or Freshman Seminars. This is the result of hundreds of schools throughout the United States using some reform components in an effort to improve attendance, grades, and behavior within ninth grade with the hopes of laying a foundation for the remainder of their high school career. Increasingly important in the academic realm of the transition year is the ability for teachers to use a wide variety of instructional strategies that best meet the learning needs of students (Allen, 2001).

The International Center for Leadership in Education has developed "Four Criteria for Successful High Schools" outlined in Figure 3. This criterion has been instrumental in determining Dr. Daggett's "Model High Schools" and expands far beyond standardized state exams. It supports school improvement processes through a stepwise data collection and analysis process and helps schools clarify their missions, prioritize problems and interventions, and critically review school performance.

Core Academic Learning	Stretch Learning	Student Engagement	Personal Skill Development
Percentage of students meeting proficiency level on state tests	Number of credits required to graduate	Student satisfaction survey	Service-learning participation
Achievement levels on standardized tests other than state exams	Interdisciplinary work and projects, such as a senior exhibition	Drop-out rate	Assessment of personal skills, such as time management, ability to plan and organize work, leadership, being a team player
Follow-up surveys of graduates' academic achievements	Average number of college credits earned by graduation through dual enrollment	Graduation rate	Teamwork
Percentage of students earning a college degree within four years after high school completion	Enrollment in Advanced Placement (AP) courses	Participation rates in extracurricular activities	Conflict resolution
Average scores on ACT/SAT/PSAT tests	Percentage of students completing career majors or career/technical education programs	Percentage of students taking ACT or SAT	Follow-up survey of graduates about development of personal skills
Percentage of students requiring English/mathematics remediation in college	Four or more credits in arts	Survey about degree to which teachers know their students	Students holding leadership positions in clubs or sports
Percentage of students graduating high school in the four years	Value of scholarships earned at graduation	Percentage of students going to two-year colleges	Respect for diversity
Military ASVAB score	Average number of credits earned at graduation	Student risk behaviors	Trustworthiness, perseverance, other character traits
	Participation/test scores in International Baccalaureate courses	Attendance rate	Reduction in number of student incidences of conflict
	Enrollment in Advanced mathematics or science courses	Discipline referrals	
	Scores on AP Exams	Follow-up survey about enrollment in higher education	
	Four or more credits in a career area	Tardiness rate	
	Three or more years of foreign language	Survey about positive peer relationships	
	Achievement of specialized certificates	Percentage of students going to four-year college	

Figure 3: Four Criteria for Successful High Schools (Daggett, 2004).

The framework is designed to provide a robust, comprehensive, and detailed portrait of school performance that clearly maps out a route for school improvement efforts. Lastly, it breaks new ground in the territory of school improvement in that it redefines school success in terms of what is unique to each school, what is needed to meet standardized test measures of school success, and the complexity and depth of the school environment (Daggat, 2004).

Researchers continue to emphasize that students transitioning from grade eight to grade nine is a process, not an event. A specific plan for the process is necessary and there must be accountability and follow-up (Fields, 2005 & Daggett, 2004). Transitioning efforts should begin well before the start of the ninth grade year and both students and parents need repeated exposure to high school expectations throughout the eighth grade year and during the summer before ninth grade begins (Fields, 2005 & Schiller, 1999).

Common characteristics of successful transitional programs consist of:

- pairing of 8th and 9th grade teachers to shadow each other;
- small-group sessions for 8th graders with 9th grade counselors;
- high school tutors;
- freshmen seminar as a required class;
- establishing a parent transition advisory council;
- parent-teacher conferences just for 9th grade;
- frequent subject area planning sessions of 9th grade teachers;
- students being required to use their agendas or weekly planners;
- lunch for 9th graders isolated from the upper classmen;
- upper-class role models as tutors or mentors as well as faculty mentors;
- consistent procedures, rules, and expectations; and

- meet with students and their parents the summer before the 9th grade with a contract implementation (Daggett, 2004).

Much effort has gone into reinventing high schools for students across America with little success. Dr. Daggett's criterion for Successful High Schools model as shown in Figure 3, was created and intended to provide a detailed portrait for school improvement considering core academic learning, stretch learning, student engagement, and personal skill development. Throughout all of these efforts a student's maturity is crucial.

Adolescent Development

Because this research will look specifically at a 9th grade initiative, the field of adolescent development will be reviewed. Adolescent development occurs during the early and middle years, approximately ages 10-20. This is a time period when young children experience many changes that include biological changes associated with puberty, social relations, and cognition and motivation (Kinney, 1993).

Biological changes associated with puberty are among the most dramatic experiences that individuals have during their lifetimes. Different theorists portrayed the early adolescent period as a period of "storm and stress," where there is a great deal of conflict among children, parents, and teachers (Blos, 1979). Although some researchers now believe that the period of storm and stress is an overstatement, the adolescents that are at-risk do experience biological changes that have many influences on their thinking and behavior (p. 215).

The majority of adolescents make many major life transitions, from elementary to middle school, middle school to high school, and high school to college or the work force. This is a period of time where between 15 to 50 percent of the students in public schools will drop out of school, this group has the highest arrest rate and consumes the most amount of

alcohol and other drugs than any other age group (NRC, 2004). Early adolescent years mark the beginning for some individuals on a downward spiral in achievement and motivation that can lead to academic disengagement, failure and school dropout, and sometimes delinquency and other serious social problems. Alspaugh (2000) added that negative school transitions, social changes such as dating and major family changes occurring during adolescence, can result in developmental problems such as lowered self-esteem, depression, and early sexual activity.

Adolescent development reflects changes within the individual, as well as changes in the environments and relationships adolescents' experience. Puberty is occurring earlier for many children in this country, beginning as early as age 8 for some girls and approximately 18 months before boys. Wigfield & Eccles (2002a) suggested that there is an educational implication on the timing for the transition from elementary to secondary school. The timing on this transition is complicated by the fact that boys and girls go through puberty at different times (Herman-Giddens, Slora, Wasserman, Bourdony, Bhapkor, & Koch, 1997). Other researchers along with Wigfield & Eccles urged that middle school should begin earlier, so that students make the school transitions before they enter puberty. Most school districts are following this recommendation by having sixth through eighth grade middle schools. The purpose of the middle school design was to meet the needs of young adolescents and develop them into the citizens of tomorrow who would have the capability to carry on the liberty and traditions of those before them. Jackson & Davis (2002) stated that states and schools should provide the authority and resources to transform middle schools and junior high schools into learning environments that are safe, intellectually stimulating, and build on their desire to

explore before entering into the high school. Growth and development of these students must be considered when developing their educational future.

Research is currently expanding to include brain development during adolescence and the changes include a reorganization of synaptic connections and the levels of different neurotransmitters in the area of the brain that control emotional functioning (Byres, 2001b). Also detected during this age are incomplete connections between the neurons that affect mental and physical abilities.

There are also important cognitive changes during this period of life that include the increasing ability to think abstractly (hypothetical as well as the real), engage in more sophisticated and elaborate information processing strategies, comprehend multiple dimensions of a problem at once, and reflect on oneself and on complicated issues (Byers, 2001b). Keating (2004) contributed by stating that the key shift that occurs in adolescence is not so much the emergence of an abstract logical ability as much as the capacity to organize, coordinate, and reflect on formal operational constructs and other abilities and tendencies. These physical changes are the reasons why teens are characterized as needing longer periods of sleep, are clumsy, oversensitive, and feel awkward about their own bodies.

A component concerning adolescent development is the change in motivation during the adolescent period and its focus on beliefs, values, and goals. Self-efficacy for individuals during this period is measured in their ability to accomplish different activities and how much they believe they control what happens to them (Keating, 2004). Jacobs et al. (2002) found that children's beliefs of themselves were strongly positive early on, while Eccles (2004) found that there was a significant decline in their perceptions of themselves as they grew older.

The next change in motivation is how adolescence value achievement, which refers to reasons or incentives children have for doing different activities. Eccles & Wigfield (2002) defined different aspects of achievement task values as interest value, or doing an activity for its own sake; importance value, or the salience of the activity to the individual; and utility value, or how useful the activity may be to the individual. Researchers have determined that children's values for different activities are differentiated early on and become more stable over time (Wigfield & Eccles, 2002a).

Wentzel (1994) studied children's social and academic goals in school, finding that high-achieving children have positive academic and social goals, and lower achieving children emphasize social goals at the expense of academic goals. Accordingly, Finn (1989), agreed that adolescents doing poorly in school may be likely to seek goals other than academic ones in school or reject school altogether.

Eccles (2004) also connected adolescent development to school transitions. He expressed that researchers consider two major school transitions that most adolescents experience; these are transitions from elementary to middle school and middle school to high school. The research on middle school transitions has received most of the attention, and researchers have stated that there is a mismatch between the developmental needs of early adolescents' experience and school placement. The middle school transitions that students endure are made up of traditional junior high schools and middle schools that have a variety of organizational characteristics and classroom practices that can have negative effects on students' competence beliefs, mastery goals, and intrinsic motivation for learning. Some students at the middle level experience difficulties in adjusting to the size of the school,

meeting students that have fed into the middle school from multiple elementary schools, and instruction that is likely to be organized and taught departmentally (Wentzel, 2002b).

More and more research is being done on the transition to high school and similar problems are occurring as in a traditional middle school. Under a typical high school structure, there are few opportunities for students to form mentor-like relationships with nonfamilial adults; hence, little effort is made to make instruction relevant to the students (NRC, 2004). This report continues to state that such environments are likely to further undermine the motivation and involvement of many students, especially those not performing particularly well academically.

A decline in state assessment scores and sub-average academic records seem to begin at the high school level, which has a strong impact on student engagement within the school. Roderick (2005) agreed that the increases in failure rates (particularly in minority students) begin in high school and timelines of the failure has a correlation to poor performance in later grades. A major decision and difference between the middle school and high school is that many students choose to drop out of school with a year to two left to complete. Nationally, approximately 25% of adolescents do not graduate from high school and depending on where they live and which school they attend, the rate is much higher (NRC, 2004). According to Entwisle (1990) there are characteristics of students that are more likely to drop out of high school. These characteristics include but are not limited to minority students, students with lower ability levels, those who achieve less well, those from poverty backgrounds, those who begin working too early and work too many hours while attending school, and those girls who become pregnant. Research stretches back to academically at-risk elementary students that are exhibiting serious behavior problems and are being truant on a frequent basis. The

researcher continues to state that students who do not make a connection with academic and nonacademic activities in school (beginning in elementary school) will identify less with the educational process, and ultimately be more likely to drop out of school.

To the contrary, some students find the transition to high school liberating, in that it gives them the opportunity to redefine themselves socially and academically (Kinney, 1993). Schiller (1999) attributed a student's success to how well he or she is doing academically in the middle school. Her work supports the practice that students who excel in middle school seem to benefit from attending the same high school with a majority of their eighth-grade classmates, but those who are struggling academically seem to benefit from enrolling in another high school. Some students did experience difficulties if their friendship networks were disrupted and they were prevented from drawing on social resources; while in contrast, other students were freed from norms, labels, and low expectations when they made the transition with fewer of their earlier classmates.

Research is showing that this age group functions best when they master certain skills in our technology rich society and according to the Carnegie Council of Adolescent Development (1989) they must acquire the following to avoid self-destruction:

- find a valued place in a constructive group;
- feel a sense of worth as a person;
- achieve a reliable basis for making informed choices;
- know how to use the support systems available to them;
- express constructive curiosity and exploratory behavior;
- believe in a promising future with real opportunities;
- find ways of being useful to others;

- master social skills, including the ability to manage conflict peacefully;
- cultivate the inquiring and problem-solving habits of mind for lifelong learning;
- acquire the technical and analytical capabilities to participate in a world – class economy;
- become ethical persons;
- learn the requirements of responsible citizenship; and
- respect diversity in our pluralistic society.

Depending on the individual student and what phase of adolescent development he or she is in, the transition from 8th to 9th grade can be either devastating or liberating. Regardless, adults are crucial in this process and must be instrumental in assisting students through these stages in their lives.

Academic Performance, Graduation, and Participation Rates

According to the Pennsylvania Department of Education (PDE), The No Child Left Behind Act (NCLB) requires that all groups of children reach proficiency in Reading and Math on the Pennsylvania System of School Assessment (PSSA) in grade spans: Grades 3-5, 6-8, and 9-12. The three reported categories in 2009 for Pennsylvania high schools were:

1. Academic Performance Rates – to meet the performance target required for AYP, schools and every measurable subgroup in the school must have at least 56% of the tested students achieve a Proficient score or higher on the mathematics assessment and 63% of the tested students achieve a Proficient score or higher on the reading assessment. NCLB allows schools to meet their proficiency targets by "Safe Harbor." Safe Harbor states that if a school achieves a 10% decrease of

students who score below Proficient from the previous year, it meets the AYP target for proficiency. The proficiency rate is based on only those students enrolled for the full academic year (enrolled as of October 1, 2008), who completed the test and who are not first year "English Language Learners" students. A breakdown of performance levels on the Pennsylvania System of School Assessment (PSSA) consists of: Advanced, Proficient, Basic, and Below Basic. These performance levels are used for all students and set by the Pennsylvania Department of Education.

2. Graduation Rate – for schools with a high school graduating class the target of 80% or any improvement from the previous year as reported to the state.
3. Participation Rate – at least 95% of students overall and within each measurable subgroup must take the test. The participation rate is based on those students enrolled as of the last day of the assessment window (March 27, 2009), regardless of whether or not those students were enrolled for a full academic year.

For a school to meet AYP, all AYP targets must be met. To meet AYP goals in Academic Performance or Test Participation, the district needs to achieve all targets for both subjects in one grade span only. Districts must meet both targets in school attendance (for 3-5 and 6-8 grades) and graduation (9-12 grades). If a school does not meet AYP, both supports and consequences are administered for schools that do not meet the targets for two consecutive years. There are three possibilities depending on their previous year's results:

- Schools that met all AYP targets last year but did not meet all AYP targets this year are put on "Warning" status. They need to meet AYP targets next year in order

to be considered on-track for meeting the NCLB goal of all students reaching proficiency by the year 2014.

- Schools that had a "Making Progress" status last year either had a "School Improvement" or "Corrective Action" status from two years ago. The school may drop to the status level beneath the status for two years if it fails to meet targets in the same subject that caused the school to enter "Improvement" or "Corrective Action" status the year before.
- Schools that had a "Warning", "School Improvement" or "Corrective Action" status last year may drop to the status level beneath that status based on the subject missed.

Related Change Theories

For school transformation and meaningful reform to occur, school districts must not only determine what changes are required but must plan and implement an intentional, well-designed transition process to help deal with the societal, organizational, and interpersonal barriers affecting schools (Link, 2000). On more than several occasions, schools with effective leaders and other school personnel have brought logical changes and improvement plans into their districts only to fail or to find limited success. Why is this? According to Link, this failure is due to the significant changes, even positively perceived changes that are difficult to bring about in well-established organizations.

Although external mandates may provide an impetus for change, organizational change theorists illustrate that reform is the product of internal changes within the organizational system (Senge, 1990). Reforms will not be realized unless people within the organization fully understand the change and believe that it is compatible to the mission and

goals of the organization. Evans (1996) concurred by discussing change in terms of first-order and second-order change. First-order change … "having the purpose of improving organizational efficiency and effectiveness, whereas, second-order change is defined as systemic, meaning that the organizational structure itself is modified and beliefs and perceptions of the members of the organization are changed" (p. 78).

Early theories of organizational change tended to define the process of change as something rational and linear, which led to concepts like diffusion and organizational development, while recent theories now discuss change in nonlinear terms and point to the complexity and interaction of a multitude of factors and variables, the effects of which cannot be precisely predicted. The goal of both diffusion models and organizational development was to improve organizational efficiency and performance in schools and educational leadership (Chance & Chance, 2002).

Wheatley (1992) introduced and described how dissipation is a process by which a system "let's go" of its present form and reemerges in a new form. She proposed that if schools are viewed as dissipative structures, they could eventually reconfigure themselves or suffer random shock. This new and different information could result in a form of disequilibrium, internal disturbances that fall apart. Bridges (2003) agreed to the transitional phase of letting go. He noted that there are three phases of transition in his National Bestseller, *Managing Transitions: Making the Most of Change,* (1) Letting go of the old ways and the old identity people had. This first phase of transition is an ending, and the time when people need help to deal with their losses; (2) Going through an in-between time when the old is gone, but the new is not fully operational. Identified as the "Neutral Zone" it is when the critical psychological realignments and repatterning takes place; and (3) Coming

out of the transition and making a new beginning. This is when people develop the new identity, experience the new energy, and discover the new sense of purpose that makes the change begin to work. In most occasions, it is not until the end of Bridge's transitional phases that the teachers begin to see the "big picture" while an effective leader embraces systems thinking and is able to envision projected outcomes. The real leverage in most management situations lies in understanding dynamic complexity, not detail complexity (Senge, 1990).

Link (2000) emphasized the four roles of change to include: (a) change sponsorship: which is an individual or group who has the authority and legitimizes the change, such as the school board, superintendent, and principals; (b) change agent: is an individual or group responsible for implementing the desired change, such as teachers, study groups, and administrators; (c) change target: is an individual or group that must actually change, most often students, teachers, and administrators who must change somehow for an effort to be successful; and (d) change advocate: is an individual or group that supports a change but does not have the authority to sanction it, and typically includes study groups, the principal, students, and non-school people.

Change continues to be a complex process associated with the norms, beliefs, and culture of an organization. Chance & Chance (2002) contended that school leaders with an understanding in organizational change theories are likely to be more successful if they do the following:

- develop procedures for involving teachers, students, and other stakeholders in the change process;
- identify forces within and outside the school that facilitate and inhibit change;

- approach change as a process that occurs over time;
- think of change in terms of whole systems and interactions among many students;
- utilize strategies which motivate and teach others the necessary knowledge, skills, and attitudes necessary to implement change; and
- match change to the philosophical orientation and belief structure of the school's social system.

Evans (1996) affirms that "successful implementation of change depends upon the meaning attached to the change by those who must implement it" (p. 48). He elaborated by acknowledging that it is crucial for organizations and those in them to accept change and work to fit change within their beliefs and understanding of the world. Personal development of coherent and continuous retraining must take place before and during implementation of change.

According to Sashkin and Egermeier (1992), three perspectives are most influential in educational change: (a) the rational-scientific perspective, which is based on the idea that change occurs by the dissemination of innovation techniques; (b) the political perspective, which believes that change is best made by top-down decisions, from federal-level to state-level reforms; and (c) the cultural perspective (bottom-up approach), which emphasizes change by encouraging changes in meanings and values within the organization. Knowing these perspectives helps in understanding the nature and use of different operational strategies of change. Sashkin and Egermeier continued to state that these operational strategies include the following: (a) fix the parts, which involves the adoption of proven innovations for the purpose of improving student outcomes; (b) fix the people, based on the

idea that improving educational outcomes is best achieved by improving teachers' and administrators' knowledge and skills; (c) fix the school, which means the development of school organizations' capacities to solve their own problems effectively; and (d) fix the system, which focuses on comprehensive change and a restructuring of the entire school system and incorporates the other three strategies for change.

The Concerns-Based Adoption Model

The development of the Concerns-Based Adoption Model (CBAM) was guided by the extensive work of Frances Fuller in the area of pre-service teacher concerns during the 1960's. According to Hall et al. (1979), the combination of Fuller's clinical assessment and research on the anxieties of teachers provided a basis for identifying various types of concerns of both student teachers and in-service teachers during teacher education or a change process. Building on research of Fuller and other studies in the area of teacher concerns, Hall, Wallace, and Dossett developed the CBAM in 1973, which addresses teacher concerns and innovation, with an emphasis on individuals' concerns.

Since the early 1970's, the CBAM has been the major focus in research about change and teacher concerns in the Research and Development Center for Teacher Education (R&DCTE) at the University of Texas in Austin. The R&DCTE has presented several publications on the different dimensions of the CBAM that are believed to facilitate change efforts: Stages of Concern about the Innovation, Levels of Use of the Innovation, Innovation Configurations, and the Intervention Taxonomy.

> ……..neither of these particular dimensions nor those implied in the rest of the model can make the extremely complex phenomenon of change clear and simple. Yet, the concepts and dimensions have proven to be of assistance to

> change facilitators, have offered a viable framework for understanding, facilitating and evaluating change efforts, and have made possible the posting of new types of research questions and examinations of policy (Heck, Stiegelbauer, Hall, & Loucks, 1981, p. 7)

According to Loucks-Horsley (1996), the CBAM is a framework having major implications for professional development in making change and in providing support for the various needs of individuals involved in the change. In change efforts, the CBAM would be an appropriate diagnostic and supportive tool in making effective change. Hord et al. (1987) reported that the Concerns-Based Adoption Model can identify the special needs of individual adopters and can provide vital support through appropriate actions.

Moreover, Sashkin and Egermeier (1992) supported the notion of the importance of using the CBAM to facilitate and monitor a change process. They believe that such a systemic approach is effective in discovering and overcoming barriers to the adoption of an innovation and that it helps users to become active, effective, engaged, and empowered in guiding change to a successful implementation. "The hypothesis underlying the CBAM model suggests that with diagnostic information the change facilitator can make decisions about how to use resources and provide interventions to individuals to facilitate the school improvement process" (Hord et al., 1987, p. 10).

This model of change, in the 1980's, was narrowed and consisted of three components: Innovation Configuration (IC); Stages of Concern (SoC); and Levels of Use (LoU). The Innovation Configuration is used to introduce the innovation to people who are directly affected by the innovation and are expected to employ it in their daily work. It represents and illustrates different patterns of innovation use when the innovation is

employed in daily practice by individual teachers (Hord et al., 1987). Communication with individuals about the variations of use of the innovation can help teachers understand the innovation and its ideal, acceptance, and nonacceptable patterns of use.

The Stages of Concern, a primary diagnostic concept, is the second component and the main basis of the CBAM. Research shows that concern data can be gathered through face-to-face conversation, open-ended responses, and questionnaire techniques (Hord et al., 1987). Hall and George (1979) stated, "The concept of Stages of Concern and its assessment are proving to be valuable tools for researchers, evaluators, staff developers, and change facilitators who need to know about individuals as they are involved in change" (p.2). According to Hord et al., (1987), the Stages of Concern (SoC) is a major diagnostic tool that can identify the different kinds of teacher concerns during a change process and can enable change facilitators to decide what kinds of assistance should be provided. Hall et al., (1979) have identified seven kinds of concerns that reflect early self concerns, task concerns, and late impact concerns. According to Hord (2006), although each of the stages are distinguished from the other, they are not mutually exclusive. Individuals may indicate concerns at all stages, but the intensity of particular stages varies with any individual as implementation processes. These seven stages of concern are shown in Figure 4.

In addition, the Levels of Use (LoU), another diagnostic concept of the CBAM, is an important tool in monitoring and evaluating the innovation implementation. Hord et al., (1987) stressed that focused interviews, informal observations, and questioning are appropriate instruments for gathering data about the LoU. By collecting data about the Levels of Use, change facilitators can identify innovation users and nonusers, and thereby

they can provide immediate assistance to move nonusers to a user phase. "A prime responsibility of change

Dimensions	Stages of Concern	Individual's Behavior
Impact	6- Refocusing	The focus on exploration of more universal benefits from the innovation. Individual has definite ideas about alternatives to the innovation.
	5- Collaboration	The focus is on coordination and cooperation with others regarding use of innovation.
	4- Consequence	Attention focuses on impact of the innovation on students in his/her immediate sphere of influence.
Task	3- Management	Attention is focused on the processes and tasks of using the innovation and best use of resources.
Self	2- Personal	Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and role of the innovation.
	1- Informational	A general awareness of the innovation and interest in learning more about it.
	0- Awareness	Little concern about or involvement with the innovation is indicated.

Figure 4: Stages of Concern about the Innovation – Hord et al. (2006).

facilitators is to guide the change process to a point of successful implementation. To accomplish this, the facilitator must monitor how an innovation is being used and act upon that information" (Hord et al., 1987, p. 54). Loucks, Newlove, and Hall (1975) reported that the LoU of the innovation describes an individual's behavior in using the innovation as he or she becomes more familiar and skilled in the innovation. To identify the degree to which people implement the new practice, researchers have identified eight levels of use of the

innovation (Hord et al., 1987). According to Hall et al., (2006), a combination of both SoC and LoU provides a powerful description and a profound understanding of an individual's feelings and performance when an innovation of change is undertaken. These eight levels of use are shown in Figure 5.

Levels of Use	Individual's Behavior
VI. Renewal	State in which the user reevaluates the quality of use of the innovation, seeks major modifications of, or alternatives to, present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the organization.
V. Integration	State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.
IV B. Refinement	State in which the user varies the use of the innovation to increase the impact on clients (students or others) within their immediate sphere of influence. Variations in use are based on knowledge of both short and long-term consequences for clients.
IV A. Routine	Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improve innovation use or its consequences.
III. Mechanical Use	State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than needs of students and others. The user is primarily engaged in an attempt to master tasks required to use the innovation. These attempts often result in disjointed and superficial use.
II. Preparation	State in which the user is preparing for first use of the innovation.
I. Orientation	State in which the individual has acquired or is acquiring information about the innovation and/or has explored its value orientation and what it will require.
0. Non-use	State in which the individual has little or no knowledge of the innovation, no involvement with it, and is doing nothing toward becoming involved.

Figure 5: Levels of Use of the Innovation – Hord et al. (2006).

Overall, researchers indicate that the Concerns-Based Adoption Model (CBAM) shows strong evidence of being an effective tool in facilitating change and school improvement. The CBAM helps the change facilitators in making appropriate decisions about how to use resources and when to provide interventions to individuals to guide school improvement to a point of successful implementation. Individuals' concerns, including their perceptions, feelings, and attitudes, are a focus of this model. As mentioned earlier, this model includes three interrelated components (IC, SoC, and LoU) that are complementary in introducing change, identifying concerns, and monitoring implementation. Also, people who are responsible for school improvement must take into consideration that only teachers can make change and that change is a process that takes a long period of time if it is to succeed.

Levels of experience/trainings and stages of concern. The following research is provided as an attempt to better relate teaching experience to stages of concern according to Fuller. Her work concluded that concerns of student teachers about their preparation program developed positively with years of experience, from early 'self-concern' to higher 'pupil concerns' throughout the study. She concluded that, when these early self-type concerns are resolved, the late impact concerns appear as shown in Figure 4. Hall and George (1978) also indicated that the concerns of teachers about teaching tend to shift from self concerns to task concerns and ultimately to impact concerns as teachers become more experienced.

Marso and Pigge (1989) examined the concerns of three groups of student teachers (599 sophomores, 151 about to commence, and 162 having just completed their teaching program) and three groups of in-service teachers (94 first-year teachers, 104 third-year teachers, and 123 fifth-year teachers). They found that teachers' concerns had significantly

changed in hierarchal order through the years of experience. They concluded that teacher concerns about teaching during teacher preparation and 5 years' teaching experience had shifted from self concerns to higher task concerns.

Moreover, Wedman (1986) reported two studies about teachers' concerns toward educational computing and how these identified concerns changed during training. Analyzing the data collected from pre-assessment and post-assessment of teachers' stages of concern, Wedman found that, although the in-service program did address the most intense self-oriented concerns, teachers' concerns did not progress to a higher level of impact concerns, and task concerns remained the same. He concluded that this rejection of the hypothesis of concerns development was due to the nature of the innovation and to the in-service activities.

These studies of Karge et al. (1993), Marso and Pigge (1986, 1989, 1995), and Wedman (1986) are consistent with Fuller's theory indicating that, with training and more teaching experience, teachers' self concerns decreased and task concerns increased, and impact concerns were stable. This is outlined in Figure 4.

Gender differences and stages of concern. Gender is an additional variable addressed in the sense of making connections to teachers' stages of concern. Marso and Pigge (1989) examined the concerns of 220 males and 950 females about teaching; they reported that females had higher impact concerns about pupils and a more positive attitude toward teaching than did males. Assessing the concerns of 60 teachers about teaching over a 7-year period from the commencement of teacher preparation through 5 years of teaching, Marso and Pigge (1995) found that female teachers were more concerned about their students than

were the male teachers, male teachers expressed lower impact concerns than did female teachers.

Toms (1997), however, found significant correlation between gender and individuals' peak stages of concerns toward the adoption of the Internet in instruction. She found that females tend to have higher stages of concerns than did males. She concluded that, when other variables, such as rank, age, and national origin were controlled, gender was significantly correlated to peak stages of concern.

Summary

This literature review examined the historical perspective of school reform and has focused on other major topics relevant to this study: high school reform, high school transitional programs, adolescent development, and the change theories that a researcher is likely to encounter. The review of literature on change has proven that many factors affect the change process. In order to facilitate a change process, change facilitators should develop a supportive school context encouraging teacher communication and cooperation, resource availability, positive policies, the development of a shared vision, professional development, positive attitudes and beliefs about change, and mutual interrelationships between the school and its community. Change not only affects the school system but also the people involved in the change (Senge, 1990). Also, change was viewed as having a direct impact on individuals; therefore, individual perceptions, attitudes, and concerns must be considered, and appropriate interventions and support should be provided. Understanding change and its effect is important in facilitating a change process.

This section also provided concerns of student teachers, in-service teachers, teachers with 5-7 years of experience, and the implementation of a new program or innovation using

the CBAM. The researchers showed that, the more individuals are involved and experienced in an innovation, the more possibility for higher stages of concern to appear. However, the nature of the innovation and types of intervention could positively or negatively affect the appearance of the desirable impact concerns that lead to higher levels of innovation implementation. The next chapter of the study describes the research design and methodology employed in data collection as well as other details important for understanding how this study was conducted.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

The process of improving student performance has appeared in many different forms and packages. It has been referred to as school improvement, school reform, and sometimes school restructuring. Regardless of the name, there is continued pressure to dramatically increase student achievement since the onset of the No Child Left Behind Act of 2001 (NCLB). Particularly at the secondary level, comprehensive school wide reform programs and how well they are implemented have been considered the most instrumental in improving student achievement.

This chapter describes the research design and the procedures used to identify the population, sample selection, and participating schools. This chapter also describes the survey instruments and procedures used to gather data. All of the data are available through the Pennsylvania Department of Education, Schoolmatters.com, Paayp.emetric, the Pennsylvania School Profiles websites and by administering and analyzing responses on the Stages of Concern Questionnaire (SoCQ).

Research Questions

Question 1: Based on 2009, Grade 11 PSSA scores, is there a significant statistical difference in the identified Transitional high schools' proficiency in Math, Reading, Graduation, and Participation Rates than Non-Transitional high schools?

Question 2: Based on the demographics (percentage of economically disadvantaged students, total school enrollment, and the district's Aid Ratio) of the high schools, is there a significant statistical difference between transitional and non-transitional schools?

Question 3: Based on the Stages of Concern Questionnaire, what are the teachers' concerns toward the implementation of ninth grade reform strategies in Transitional High Schools within Pennsylvania?

Question 4: Based on the Stages of Concern Questionnaire, are there significant relationships between teachers' stages of concern and their years of experience in a transitional program and gender?

Research Design

Through conducting a survey to identify ninth grade transitional and non-transitional high schools, this quantitative study extracted existing data from the Pennsylvania Department of Education on academic performance, graduation, and participation rates in a comparative analysis. The purpose of this study was to determine if there is a significant difference in performance between transitional and non-transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing ninth grade reform strategies through the Stages of Concern Questionnaire (SoCQ), a component of the Concerns-Based Adoption Model (CBAM). In quantitative research, researchers collect numerical data, or information, from individuals or groups and usually subject these data to statistical analyses to determine whether there are relationships among them. Quantitative research usually poses hypotheses that are either supported or disconfirmed by the data (Slavin, 2007) and uses methods adopted from the physical sciences that are designed to ensure objectivity, generalizability, and reliability. These techniques cover the ways research participants are selected randomly from the study population in an unbiased manner, the standardized questionnaire or intervention they receive, and the statistical methods used to test predetermined hypotheses regarding the relationships between specific

variables. The researcher is considered external to the actual research, and results are expected to be replicable no matter who conducts the research (Cohen, Manion, & Morrison, 2007).

Additionally, within quantitative studies, research designs can be either experimental or non-experimental. In experimental research, a researcher introduces one or more independent variables, or treatments, and observes the effect on one or more dependent variables, or outcomes. The treatment serves as a systematic set of instructions or conditions applied to subjects in a study. In non-experimental quantitative research, the researcher usually observes relationships between two or more variables as they exist, without trying to change them or simply seeks to describe a certain group in terms of one or more variables (Slavin, 2007). The non-experimental method was chosen because it allowed the researcher to collect and analyze data in a way that minimizes bias and increases the likelihood that this researcher's experience as a high school principal would be presented in an impersonal and objective manner.

Population and Sample Selection

All high school principals in the Commonwealth of Pennsylvania were quarried using the Ninth Grade Reform Strategies Survey (Appendix E). Criteria was narrowed to high schools having a ninth through twelfth grade configuration and considered a public school. It was to determine if their high schools were considered transitional or non-transitional as defined in this study. There were one-hundred forty- eight principals that responded but only seventy-three high schools met the criteria for this study. Thirty-nine were categorized as transitional high schools and thirty-four were categorized as non-transitional high schools. Of the 39 high schools identified as transitional, all teachers of the transitional schools were

asked to voluntarily participate in the Stages of Concern Questionnaire (SoCQ) (Appendix O).

The Schoolmatters.com website was utilized to determine percentage of economically disadvantaged students and total school enrollment needed for this study. This website is used by parents as they research information about public schools. Additionally, it is capable of providing grade levels per building, reading and math state scores, and teacher/student ratio figures. It can compare schools to each other and also allow parents to make comments about the schools on the site.

The Ninth Grade Reform Strategies Survey was distributed through Qualtrics (an on-line survey tool) via-emails. A value was placed on each response of the survey and a raw score or grade was used to separate the high schools into two categories: high schools having a ninth grade transitional program and high schools not having a ninth grade transitional program.

Of the thirty-nine Transitional high schools, the levels of concern of the innovation were measured by having the high school teachers participate in an on-line form of the Stages of Concern Questionnaire (SoCQ). The target population was all high school teachers in the identified transitional high schools in Pennsylvania. Of those teachers, they were categorized in four groups according to the total number of years implementing ninth grade transitional strategies (see Table 1). One hundred forty-six teachers had 1 to 3 years of experience; 100 teachers, 4 to 6 years of experience; 43 teachers, 7 to 10 years of experience; and 25 teachers, 11 or more years of teaching experience.

Table 1
Years Teaching Ninth Grade Transitional Strategies Response Rate

Group	Frequency	Percentage
1 to 3 years	146	46.5%
4 to 6 years	100	31.8%
7 to 10 years	43	13.7%
11 + years	25	8%
Total	314	100.0%

The sample also categorized gender and of the 314 teachers, 181 participants were females and 133 were males. Teachers were encouraged by their principals to participate in the questionnaire. Table 2 illustrates the gender response rate from the sample.

Table 2
Gender Response Rate

Gender	Frequency	Percentage
Female teachers	181	58%
Male teachers	133	42%
Total	314	100%

The participants in this study were all high school teachers who volunteered to respond to the Stages of Concern Questionnaire. This sample was convenient and met the interest of identifying teachers' concerns about the implementation of the Ninth Grade Transitional Strategies. This sample was found to be appropriate for collecting data, and the researcher was able to develop an understanding of how teachers feel about implementing a new program or innovation. Participants were informed that their nonparticipation would not affect them negatively, all information provided would be used confidentially, and the researcher would be the only one who could access their information.

Data Source

This study used two major sources of preexisting data. The Schoolmatters.com website provided this research with grade configuration, percentage of economically disadvantaged students, and total school enrollment for the identified high schools. The Paayp.emetric website was used to obtain Grade 11-2009 PSSA academic performance, graduation, and participation rates. The Pennsylvania System of School Assessment or PSSA's are a series of criterion-referenced tests in the areas of mathematics, reading, writing, and science. These tests are based on academic standards that describe what each student in a specific grade level should know and be able to do. For the purpose of this study, AYP or Adequate Yearly Progress for an entire high school's academic performance (Math and Reading), graduation, and participation rates was utilized and compared in the determination of ninth grade transitional program effectiveness. The PA Department of Education personnel were used to determine the participating district's Aid Ratio. All data for this study was school level data and public knowledge. It required no information from individual students.

The other major source for this study was one component of the Concern-Based Assessment Model (CBAM), the Stages of Concern Questionnaire (SoCQ). The 35-items contained in this questionnaire are not innovation specific. Each item articulates a concern about the innovation. Participants respond to a degree in which each concern is indicative to their perceptions, feelings, and attitudes by identifying a number next to each statement on a Likert scale of zero to six. High numbers indicate high levels of concern, while low numbers represent a low level of concern. Based on the alpha coefficients of internal consistency for each stage of concern, these coefficients reflect the degree of reliability among items on a

scale in terms of overlapping variance. The formula is a generalization of the Kuder-Richardson Formula 20 dichotomous items. The test reliability was reported to range between .64 and .71. Test-retest reliability ranged between .65 - .71 (Hall, George & Rutherford, 1998 & 2006).

Survey instruments. In survey research, the most important tasks are to be sure that the measures being used are valid and reliable and that the individuals from whom we receive surveys are representative of all the individuals to whom we wish the results to apply. Typically, surveys gather data at a particular point in time with the intention of describing the nature of existing conditions or identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events. Thus, surveys may vary in their levels of complexity from those that provide simple frequency counts to those that present relational analysis (Slavin, 2007).

A survey has several characteristics and several claimed attractions; typically it is used to scan a wide field of issues, population, programs etc. in order to measure or describe any generalized features. It is useful (Green, Camilli, & Elmore, 2006) in that it usually:

- gathers data on a one-shot basis and hence is economical and efficient;
- represents a wide target population;
- generates numerical data;
- provides descriptive, inferential and explanatory information;
- manipulates key factors and variables to derive frequencies (e.g. the numbers registering a particular opinion or test score);
- gathers standardized information (i.e. using the same instructions and questions for all participants);

- ascertains correlations (e.g. to find out if there is any relationship between gender and scores);
- presents material which is uncluttered by specific contextual factors;
- captures data from multiple choice, closed questions, test scores or observation schedules;
- supports or refutes hypotheses about the target population;
- generates accurate instruments through their piloting and revision;
- makes generalizations about, and observes patterns of response in, the targets of focus;
- gathers data which can be processed statistically; and
- usually relies on large-scale data gathering from wide population in order to enable generalizations to be made about given factors or variables (p. 314).

The Ninth Grade Reform Strategies Survey was created using Dr. Daggett's *Four Criteria for Successful High Schools* and was used by this researcher to discriminate between two types of high schools: transitional and non-transitional within Pennsylvania. This survey was approved and successfully piloted (Appendices A & D) by the Internal Review Board. It was distributed to all High School Principals in the Commonwealth of Pennsylvania. Respondents were asked to select strategies that were best exhibited in their high schools that ranged from time allotted for in-depth scheduling for incoming ninth grade students, to the creation of parent advisory groups through the transition year, to a separate ninth grade lunch and peer and faculty mentoring programs. Proactive interventions starting in eighth grade were also surveyed to all participating principals.

The Stages of Concern, one dimension of the Concern-Based Adoption Model (CBAM), was the other tool used in this study. It was developed to identify the concerns of individuals during the change process (Hord et al., 1987, 2006) and administered only to teachers of transitional schools. The Stages of Concern dimension attempts to describe the personal aspects that are involved in the process of an innovation implementation (Hall & George, 1978). According to Hord et al., (2006) the research on concerns has identified seven stages of concern reflecting self, task, and impact concerns that individual users encounter when implementing an innovation. Self concerns consist of awareness, information, and personal; task concern is management; and impact concerns include consequence, collaboration, and refocusing. Each stage of these seven subscale concerns is represented by five statements (see Appendix P) on a 35-item Stages of Concern Questionnaire (SoCQ). A major strength of the questionnaire is the completeness of the data it provides. For each individual or group, a profile can be developed that shows the intensity level on each of the seven stages, thereby creating a pattern of concerns. The SoCQ is also versatile. It can be reliably administered to the same persons several times during the course of a year to identify increases or decreases of concern.

Respondents were asked to select a number between 0 and 7 on a Likert-type scale to reflect their present concerns about their involvement or potential involvement in Ninth Grade Reform Strategies. The number 0 means that the given statement is irrelevant as a concern at this time; the number 1 reflects an untrue concern statement; the number 4 indicates that the given statement is presently somewhat a true concern; and number 7 represents a very true concern at this time. However, numbers in between, exhibit varying degrees of intensity toward each statement of concern. This tool also was redesigned and

updated to include on-line manuals to assist in scoring the questionnaire responses and can create a profile for group and individual participants. It has the capability to calculate raw scale scores, raw score totals, and a percentile scores. The analysis of total sample group profiles, four experience group profiles, and female and male profiles were all determined for the use of this study. The on-line version on the SoCQ allowed the researcher the ability to manipulate the questionnaire by adding 'Ninth Grade Reform Strategies' in place of 'innovation' on the questionnaire.

In addition, respondents were asked to complete a demographic survey that was designed to identify variables about each participant that could be compared to the reported concerns of teachers. It accompanied the SoCQ and included 10 questions that address years of experience, years participating in a ninth grade transitional program, gender, training, age, and grade level taught.

Pilot study. The function of the pilot test for this study was completed to increase the reliability, validity and practicability of the Ninth Grade Reform Strategies survey (Appendix F). The survey was designed to categorize high schools as having ninth grade transitional strategies and high schools that do not exhibit transitional strategies. Through this pilot, the researcher checked the clarity of the survey items, instructions, and layout through piloting Ex- High School Principals. This pilot was able to serve as a trial run of the study, done for the sole purpose of testing the instrument and identifying any issues that need to be addressed before the actual study is conducted (Slavin, 2007).

Ten ex-high school principals were asked to participate in the pilot study. The participants were both males and females. Their years of experience and the average number of students in the building in which they served as high school principals were also added to

this study. These ex-principals are currently superintendents, college professors, educational consultants, or retired. The recommendations from the pilot study suggested the ability to return to previously answered questions, wanting additional space when responding to open-ended questions, and to include a monitoring tool to show the amount of survey questions remaining for the survey taker. There were no changes to the content of the survey. Participants of the pilot study provided suggestions that were procedural in nature or process changes. These changes were resubmitted and approved by the IRB (Appendix D).

Babbie (2001) added that conducting a pilot test gives the researcher a chance to revise or eliminate items that the respondents could not answer, had multiple answers for, or had qualified answers for. It also allows the researcher to identify weak items (such as those that everyone answered the same way), confusing items, and items that do not correlate well with the total scale score.

Data Analysis Procedures

This quantitative study used three types of variables to describe the schools in this sample. The control variables were the percentage of economically disadvantaged students, total school enrollment, and the school district's Aid Ratio. High schools with transitional programs and high schools without transitional programs served as the independent variables. Finally, the dependent variables were the academic performance of all students in Math and Reading on the 2009, Grade 11 PSSA along with their graduation and participation rates. This existing school data was collected and served as an indicator of effectiveness between transitional and non-transitional high schools.

The SoCQ was used in this study to identify concerns that teachers experienced when implementing Ninth Grade Transitional strategies. Three additional variables were examined

in the second portion of the study, the relationship between two independent variable (years participating in the Ninth Grade Transitional programs and gender) and seven dependent variables (awareness, informational, personal; management, consequence, collaboration, and refocusing stages of concern) were tested.

Data was collected using two tools and cover letters were addressed to the participating principals (Appendix G) and later an additional cover letter was sent to the teachers of the Transitional high schools (Apprendix J). This letter explained the purpose of the study, ensured confidentiality, discussed the importance of teachers' inputs to the survey, and shared that their principal's responses to another survey made each of the teachers eligible to participate. All correspondence was done through emails with attached documents. IRB approval was sought and granted for the use of the High School Principal survey, while written permission was obtained (Appendices K & L) by the Texas Research and Development Center at the University of Texas in Austin to administer the SoCQ. Each of the principals from the Transitional high schools agreed to distribute the SoCQ to the entire high school staff through a mass email server. Once the teachers responded and completed the questionnaire, it would automatically be returned through an email. Permission was granted for one year which allowed the researcher to send follow up emails to encourage more participation (Appendix N).

This study used descriptive statistics to describe each of the variables in the study. Slavin (2007) described descriptive statistics as simply convenient ways of summarizing characteristics of data in a form everyone can understand and use. To address research questions 1 and 2 - *Question 1: Based on 2009, Grade 11 PSSA scores, is there a significant*

statistical difference in the identified Transitional high schools' proficiency in Math, Reading, Graduation, and Participation Rates than Non-Transitional high schools? and Question 2: Based on the demographics (percentage of economically disadvantaged students, total school enrollment, and the district's Aid Ratio) of the high schools, is there a significant statistical difference between transitional and non-transitional schools?

Frequency, range, mean, standard deviation, minimum, and maximums were calculated for each of the variables in this study. T-tests compared the dependent variables among the two school structures. T-tests are the primary statistic used to determine whether means from two different samples are different beyond what would be expected due to sample-to-sample variation. Data sets of raw scores were tabulated for each item and a determination of Transitional high school or Non-Transitional high school were entered into SPSS, version 17.0.1. Multiple regression analyses were also used to determine a relationship between school structures and academic performance, graduation, and participation rates, including economically disadvantaged, total school enrollment, and each district's Aid-Ratio.

Inferential statistics were used while interpreting the SoCQ data. The SoCQ manual for data analysis and interpretation served as the primary need of describing teachers' concerns about an innovation. This manual, prepared by Hall et al. (2006), includes raw scale scores, raw score totals, a percentile table, and individual SoC profiles. For the purpose of answering questions 3 and 4 - *Question 3: Based on the Stages of Concern Questionnaire, what are the teachers' concerns toward the implementation of ninth grade reform strategies in Transitional High Schools within Pennsylvania? and Question 4: Based on the Stages of Concern Questionnaire, are there significant relationships between teachers' stages of*

concern and their years of experience in a transitional program and gender? The first analysis was the total sample group profile that was used when identifying teachers' levels of concerns (self concerns, task concerns, and impact concerns). The second analysis was the analysis of the stages of concern in relation to four profiles of the number of years and gender for participating teachers in a transitional program.

Lastly, multivariate analysis or MANOVA was used to test the relationship between two independent variable (years of participation in the innovation and gender) and seven dependent variables (awareness, informational, personal, management, consequence, collaboration, and refocusing).

Limitation

Factors that cannot be controlled in this study include the number of principals and teachers who chose to respond to the surveys and the overall survey results.

Summary

The purpose of this study was to determine if there is a significant difference in academic performance, graduation, and participation rates between transitional and non-transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing ninth grade reform strategies through the Stages of Concern Questionnaire. Because many variables can affect academic performance; total school enrollment, percentage of economically disadvantaged students, and the district's Aid Ratio were also used to ensure that this study was not compromised by unrelated demographics. High school principals were invited to complete the Ninth Grade Reform Strategies survey. Of the principals that met the Transitional criteria, their teachers were invited to participate in this study by completing the SoCQ instrument. The SoCQ included a demographic survey

that gathered information about factors related to teachers' concerns such as, levels of experience and gender. In data analysis, t-tests, the SoCQ manual, and MANOVA were applied to answer the research questions and to make fundamental interpretations about the teachers of this study.

The chapter described the research questions, research design, the population and sample selection, data source, and data analysis procedures. The next chapter will present the data collected and the analysis of the data.

CHAPTER IV

DATA AND ANALYSIS

Introduction

The purpose of this quantitative study was to use existing data to compare academic performance, graduation and participation rates between transitional and non-transitional high schools, to later identify 'concerns' of the transitional high school teachers by using the Stages of Concern Questionnaire (SoCQ), a component of the Concerns-Based Adoption Model (CBAM). An enormous amount of research has been dedicated to high school testing, drop-out statistics and the effectiveness of freshman transitional programs, but few exist that compare the transitional programs to variables such as student achievement in Pennsylvania.

This study sought to determine if there is a difference in Transitional and Non-Transitional high schools in Pennsylvania in relation to academic performance (including graduation and participation rates) and socio-demographic factors, while measuring teachers' concerns of the transitional high schools. The research hypothesis is that Transitional high schools would be more inclined to have higher academic performance, graduation, and participation rates than Non-Transitional high schools, while teachers of the transitional schools should have high ranges of concern towards the transitional strategies.

This chapter represents the procedures and results of the data analysis used in this study. Data concerning academic performance, graduation and participation rates were analyzed using SPSS and compared to the identified transitional and non transitional high schools. Specifically, T-tests were used to analyze academic achievement between school structures. Participating high schools (see Table 3) were organized and include the following data: survey grade, percentage of economically disadvantaged students, total high school

enrollment, aid-ratio, as well as each school's performance rate at the 2009 PSSA Math, Reading, Graduation, and Participation assessment.

Additional research was conducted to identify concerns that teachers experienced when implementing Ninth Grade Transitional Strategies in the previously determined Transitional high schools. Data from the questionnaire determined the relationships between teacher stages of concern and years of participation in transitional programs and gender.

Sample Population

Five hundred and seventy surveys were designed and e-mailed to High School principals in Pennsylvania. The survey inquired as to the number of ninth-grade transitional strategies exhibited within the high schools of each of the participants. One hundred and forty-eight principals (26%) responded throughout the Commonwealth of Pennsylvania. The number of respondents was based on a statistical power (.8) and a medium effect size. In statistics an effect size is a measure of the strength of the relationship between two variables in a statistical population. An effect size calculated from data is a descriptive statistic that conveys the estimated magnitude of a relationship without making any statement about whether the apparent relationship in the data reflects a true relationship in the population. Effect sizes complement inferential statistics such as p-values (Creswell, 1994). Within this study, a larger sample size would have increased the power of the experiment for the t-tests, and ultimately increase its reliability as well.

The surveyed participants responded to thirty-five questions (Appendix O) and met the appropriate definition of public high schools with a grade configuration of 9-12. Any other grade configuration, private or charter schools were closed to the remainder of the survey. Thirty-nine high schools (24%) made up the Transitional High School category,

thirty-four high schools (23%) made up the Non-Transitional High School category, and seventy-five high schools could not be included in the sample because they did not meet the set criteria.

Several hundred Stages of Concern Questionnaire's (SoCQ) were purchased and easily accessed through a mass email to each participating 'Transitional' high school. The high school principal served as the contact person and was instrumental in distributing the cover letter and the connecting link to the questionnaire to all teachers in the building via email. Although thousands of teachers were eligible to respond to the questionnaire, three hundred and fourteen questionnaires were accurately completed by the thirty-nine transitional school districts as outlined in this dissertation.

Independent/Dependent and Control Variables

The independent variable was determined by the responses of the high school principals; either transitional high school or non-transitional high schools with a grade configuration of 9-12 for the purpose of this study. These school structures were determined via an on-line survey created through Qualtrics. The control variables were the percentage of economically disadvantaged students, total school enrollment, and aid-ratio obtained from the PA School Profiles website, the Paayp.emetrics.net website, and the Pennsylvania Department of Education. The dependent variables, on the other hand, were the academic performance (math and reading proficiency), graduation, and participation rates of each of the participating high schools. Additionally, variables in the SoCQ were examined: independent variables (levels of experience and gender) and seven dependent variables (awareness, informational, personal, management, consequence, collaboration, and refocusing).

Summary Results of the Qualtrics Survey

The Ninth Grade Reform Strategies Survey was created and monitored through an on-line program, called Qualtrics. It was designed and sent out to all high school principals in the Commonwealth of Pennsylvania. Responses were calculated within the program and each participant represented his/her high school and earned a raw score or grade at the completion of the survey. The first five and last two questions were informational and had no numerical value placed on the responses. The selected responses ranged from 4 to 0. For the purpose of this study, a Transitional High School was defined as any Pennsylvania high school with a grade configuration of 9-12 and earned a raw score greater than or equal to 50 points, where as a Non-Transitional High School with a grade configuration of 9-12 earned a raw score of less than 49 points on the ninth grade reform strategies survey.

The informational questions of the survey yielded that of the one hundred and forty-eight responses, 91% had 15 or fewer years of experience as principal, while 86% were younger than 55 years old. Of the participating high schools, an average of 87% of the ninth graders was promoted to tenth grade and the schools had an average enrollment of a little more than one thousand students. The remainder of the survey solicited responses from principals employed in public high schools with grade configurations of 9-12. Each response was used in determining the raw score or grade associated with categorizing the seventy-three high schools as transitional or non-transitional. When asked if there was a pairing of 8th and 9th grade teachers to better transition students to 9th grade, 93% said that this strategy occurs sometimes to almost never. Likewise, 63% responded that time is rarely set aside for 8th and 9th grade counselors to discuss incoming freshmen, while 67% of the principals do encourage teachers of ninth grade students to meet as a team and commonly plan their

instruction. When surveyed about remediation for incoming students, the principals replied that their high school teachers offer remediation, but only 87% are certified in the appropriate areas. Seventy-nine percent of the respondents shared that they do not embrace high school students serving as role models being paired with 8th grade students; however, 94% of the principals feel strongly that ample time should be set aside for scheduling incoming 9th graders to the high school. Although 90% of the principals fail to have a parent transition advisory council to benefit the parents during their child's transition to high school, they do support teacher meetings throughout the school year with the appropriate school personnel. Approximately 50% of the respondents participate in parent-teacher conferences specifically for 9th grade students; however, over 70% of the high school principals have not implemented student-led conferences.

Although very few high schools have principals or guidance counselors designated for 9th grade students only, the focus was spent assisting struggling students transitioning to 9th grade. Moreover, the survey showed that 87% of the participants have special teachers/faculty or upper-class student mentors available to assist with these students. There was a strong consensus of nearly all high school principals surveyed that students could easily seek out a form of intervention if they felt bullied by another student or needed assistance with any issues that they may be facing. More than half of the participants shared that they had designated time in the summer to meet with the parents of their most at-risk students to clearly state attendance and academic expectations. According to 17 % of the participating principals, some incoming freshmen were required to participate in summer success academies, even though only 24% of the high schools had all freshmen participating in a required freshmen seminar course that included career exploration.

Table 3*: Transitional and Non-Transitional High Schools*

	Survey Grade Raw Score	% SED	Enrollment	Aid Ratio		Performance Rate (%) Math '09	Reading '09	Graduation Rate (%)	Participation Rate (%)
TRANSITIONAL H.S.									
Academy Park H.S.	83	80	1299	0.6567		37	37	78	99
Berwick Area H.S.	54	38	985	0.6559		54	65	88	99
Brentwood H.S.	73	25	485	0.6577		56	66	92	100
Burrell H.S.	56	24	712	0.5662		57	68	95	100
California Area H.S.	78	37	334	0.6709		64	66	100	100
Central Bucks East H.S.	54	5	1514	0.2231		83	88	99	100
Central Columbia Sr. H.S.	69	25	707	0.523		76	84	97	100
Chambersburg Area Sr. H.S.	58	35	1894	0.434		57	64	90	99
Charleroi Area H.S.	65	38	512	0.6975		66	66	92	97
Dover H.S.	56	24	1075	0.5978		67	52	93	97
Downingtown West H.S.	59	4	1813	0.3333		69	82	96	98
East Stroudsburg Sr. H.S North	70	43	1515	0.6567		50	61	94	99
Elizabethtown Area H.S.	54	16	1335	0.4855		59	68	94	98
Ephrata Sr. H.S.	66	24	1316	0.4238		67	67	95	99
Franklin Regional H.S.	87	9	1261	0.394		75	86	98	100
Gettysburg Area H.S.	54	32	1180	0.3895		64	65	89	97
Grove City H.S	66	36	813	0.5903		70	70	98	99
Harrisburg H.S.	85	85	1406	0.7487		13	20	79	88
Lebanon Sr. H.S.	77	70	1112	0.7556		44	45	79	98
Lower Dauphin H.S.	62	16	1275	0.5093		68	76	96	99

Manheim Township H.S.	65	15	1746	0.3009		77	83	95	100
Meadville Area Sr. H.S.	89	43	1025	0.6253		43	63	87	98
Mechanicsburg Area H.S.	73	20	1229	0.3714		73	76	89	99
New Oxford H.S.	69	24	1279	0.5249		53	61	94	97
Palmyra Area Sr. H.S.	53	12	1005	0.4466		62	76	94	100
Parkland Sr. H.S.	63	9	3173	0.2671		73	82	97	99
Pen Argyl Area H.S.	68	21	654	0.5224		63	78	90	99
Penn Manor	55	20	1920	0.4535		59	67	97	99
Pennridge H.S.	85	13	2406	0.3216		68	82	97	99
Pennsbury H.S.	50	12	3598	0.297		67	78	96	98
Phoenixville Area H.S.	92	17	1031	0.15		74	83	96	97
Pottsgrove H.S.	63	20	996	0.5118		52	66	90	99
Radnor Sr. H.S.	69	3	1210	0.15		85	91	99	99
Shikellamy H.S.	52	39	1079	0.6437		46	62	79	100
South Park H.S	56	17	771	0.6236		62	77	98	97
Upper Darby Sr. H.S.	68	41	4003	0.6257		51	54	82	98
West Perry Sr. H.S.	69	30	928	0.5826		45	62	83	100
Western Wayne H.S.	52	45	787	0.4167		43	59	89	99
Westmount Hilltop H.S.	74	19	615	0.477		71	83	95	98

	Raw Score	% ED	Enrollment	Aid Ratio		Math '09 (%)	Reading '09 (%)	Graduation Rate (%)	Participation Rate (%)
NON-TRANSITIONAL H.S.									
Albert Gallatin Area Sr. H.S.	49	59	1284	0.7803		49	54	83	99
Beaver Area H.S.	34	13	656	0.5199		78	82	99	100
Blairsville Sr. H.S.	49	40	445	0.6866		61	66	90	98
Boiling Springs H.S.	36	10	749	0.4285		54	69	97	99
Cedar Crest H.S.	49	20	1633	0.4646		69	75	95	99
Central H.S.	31	25	661	0.5858		53	71	96	99
Cocalico Sr. H.S.	47	17	1190	0.4944		70	76	95	99
Conrad Weiser H.S.	32	23	1066	0.5194		53	69	89	99
Dallastown Area Sr. H.S.	47	14	1830	0.4182		61	78	98	99
Deer Lakes H.S.	27	23	637	0.5468		65	79	96	99
Elizabeth Forward	48	27	1019	0.6575		59	66	91	99
Emmaus	32	10	2783	0.371		73	82	94	100
General McLane H.S.	48	24	839	0.5729		76	80	97	97
Hamburg Area H.S.	48	27	889	0.5415		64	71	91	99
Hersey H.S.	40	12	1167	0.288		75	76	97	99
Hopewell Sr. H.S.	18	22	973	0.6003		76	84	97	98
James Buchanan H.S.	48	30	857	0.5432		55	59	93	100
Jersey Shore Area H.S.	44	33	947	0.6834		54	60	84	100
Kittanning Sr. H.S.	41	27	673	0.6686		60	70	87	99
Lehighton Area H.S.	38	30	826	0.5824		57	69	88	99
Lewistown Area Sr. H.S.	45	21	924	0.6558		71	61	96	100
Marion Center Area H.S.	39	40	514	0.708		60	72	85	99

Marple Newtown Sr.	23	6	1217	0.15		72	80	97	99
Methacton H.S.	39	4	1813	0.2157		74	85	100	99
Middletown Area H.S.	47	31	722	0.5129		53	69	86	99
Midd-West H.S.	33	34	774	0.5996		50	53	92	100
Norristown Area H.S.	24	63	1852	0.4018		37	44	87	98
Palmerton Area H.S.	33	23	605	0.5894		55	72	97	97
Solanco H.S.	48	26	1381	0.4498		60	70	87	99
Susquenita H.S.	43	25	749	0.6002		50	58	86	99
Uniontown Area Sr. H.S.	46	50	1078	0.6944		62	70	88	100
Upper Merion H.S.	41	15	1139	0.15		67	75	95	98
Wyoming Valley West Sr. H.S.	46	51	1517	0.6443		45	64	87	96
York Suburban Sr. H.S.	27	17	856	0.2824		69	77	97	100

When surveyed about the most instrumental person in organizing ninth grade transitional strategies of the participating principals, over 70% reported that the high school principal or the assistant principal were responsible for implementing transitional strategies. Several attributed the roll-out of some strategies to guidance counselors and other school improvement teams within the high school. Despite some of the obstacles for incoming freshman, the principals responded that their teachers were almost always passionate, enthusiastic and committed to the success of their 9th grade students, and evenly split themselves in half when classifying their own school as transitional or non-transitional.

Results

The data of this study were analyzed in relation to each research question. Descriptive statistics to include the number of schools, the mean, standard deviation, and the t-test for Equality of Means were used to describe the academic performance, graduation and participation rates as well as, percent of economically disadvantaged students, total high school enrollment, and aid-ratio for the participating high schools. Multiple regression were used to determine the relationship between the school structures and academic performance, graduation, and participation rates, including sub-groups of economically disadvantaged, total school enrollment, and the district's Aid-Ratio. Additionally, the interpretation of the Stages of Concern Questionnaire data and quantitative analysis of Stages of Concern using MANOVA is reflected in this study.

Research Question 1

Based on 2009 Grade 11 PSSA scores, is there a significant statistical difference in the identified Transitional high schools' proficiency in Math, Reading, Graduation, and Participation Rates than Non-Transitional high schools?

For this study, significant difference was defined as $p < .05$. The academic performance, graduation and participation variables used were 2009, 11th grade PSSA math and reading scores in relation to transitional and non-transitional high schools. These graphs (scatter plots) distinguish between Transitional and Non-transitional (using the identified survey grade) and the percentage that met proficiency on PSSA math, reading, graduation and participation rates (Figures 6, 7, 8, and 9). The symbols to the rights of the 50.0 survey grade are Transitional plots and symbols to the left are Non-Transitional plots. They identify where each participating school scored at the completion of the Transitional survey. These results were used in an attempt to assess a difference in the means of the two groups (Transitional and Non-Transitional). The results of the statistical test (independent samples t-test) were employed. The t-test showed in Table 5, that there was no statistically significant difference in Academic performance (Math and Reading PSSA scores), graduation, or participation rates. The Levene's Test for Equality of Variances indicated that the school structures (Transitional and Non-Transitional) was not related to academic performance, graduation or participation rates. All variables including Math, Reading, Participation, and Graduation, $p > .05$. As a result, the null hypothesis that stated that there should be an increase for Transitional high schools is not rejected. A summary of the SPSS results show that the percentage passing Math was t (39) = -.274; Reading, t (39) = -.513; Participation, t (39) = -1.135; and Graduation, t (39) = -.180.

Table 4 represents the mean and standard deviation for Academic performance in Math for Transitional high schools (N = 39), (M = 60.5897, SD = 14.01638) and Math for Non-Transitional

high schools (N = 34), (*M* = 61.3824, *SD* = 10.05746), the mean and standard deviation for Academic performance in Reading for Transitional high schools (N = 39), (*M* = 68.6923, SD = 14.33069) and Reading for Non-Transitional high schools (N = 34), (*M* = 70.1765, *SD* = 9.49153), and the mean and standard deviation for Participation Rates on the 2009, Grade 11 PSSA's for Transitional high schools (N = 39), (*M* = 98.4872, *SD* = 1.99831) and Participation Rates on the 2009, Grade 11 PSSA's for Non-Transitional high schools (N = 34), (*M* = 98.9118, *SD* = .93315). The mean and standard deviation for Graduation Rates on the 2009, Grade 11 PSSA's for Transitional high schools (N = 39), (*M* = 92.0256, *SD* = 6.17928) and Graduation Rates on the 2009, Grade 11 PSSA's for Non-Transitional high schools (N = 34), (*M* = 92.2647, *SD* = 4.96844) are also illustrated.

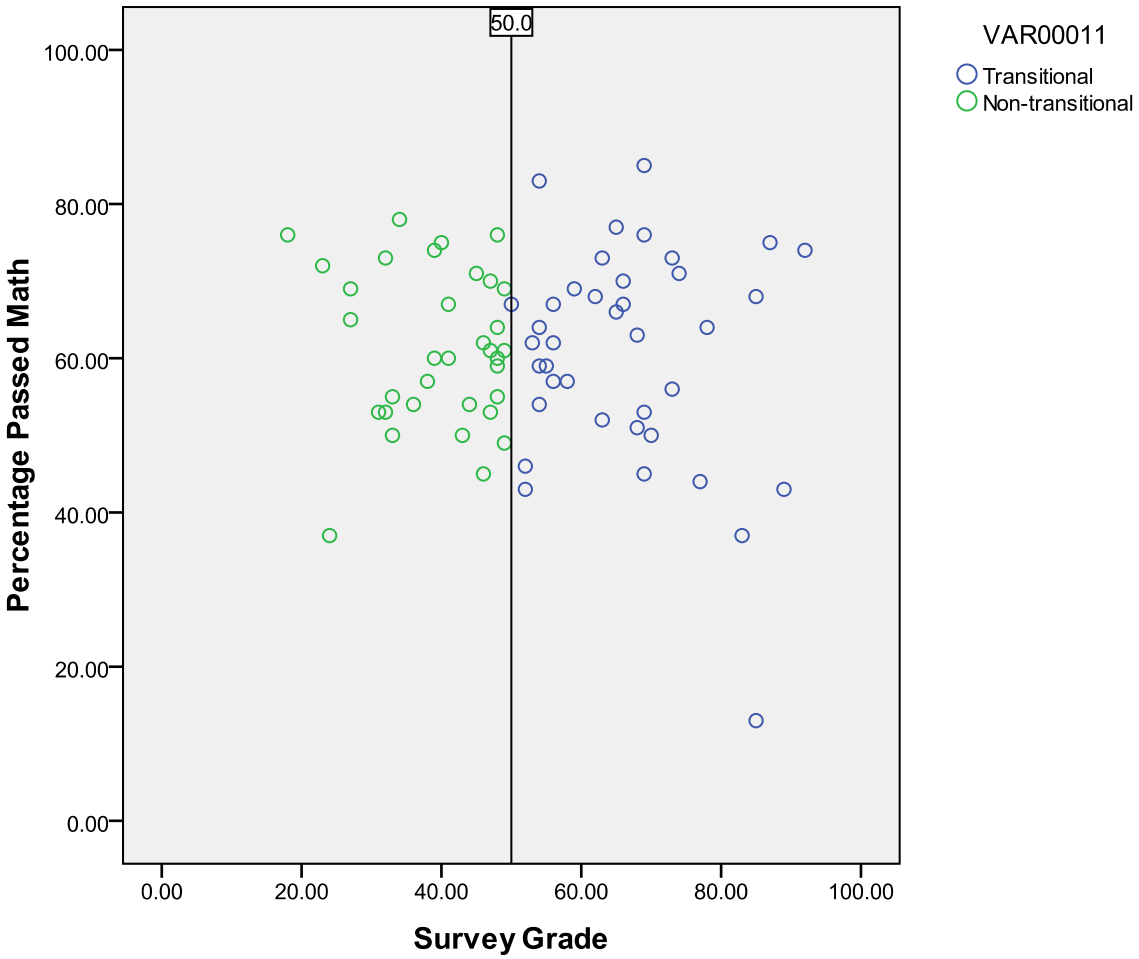

Figure 6: Transitional vs. Non-Transitional: Math Proficiency.

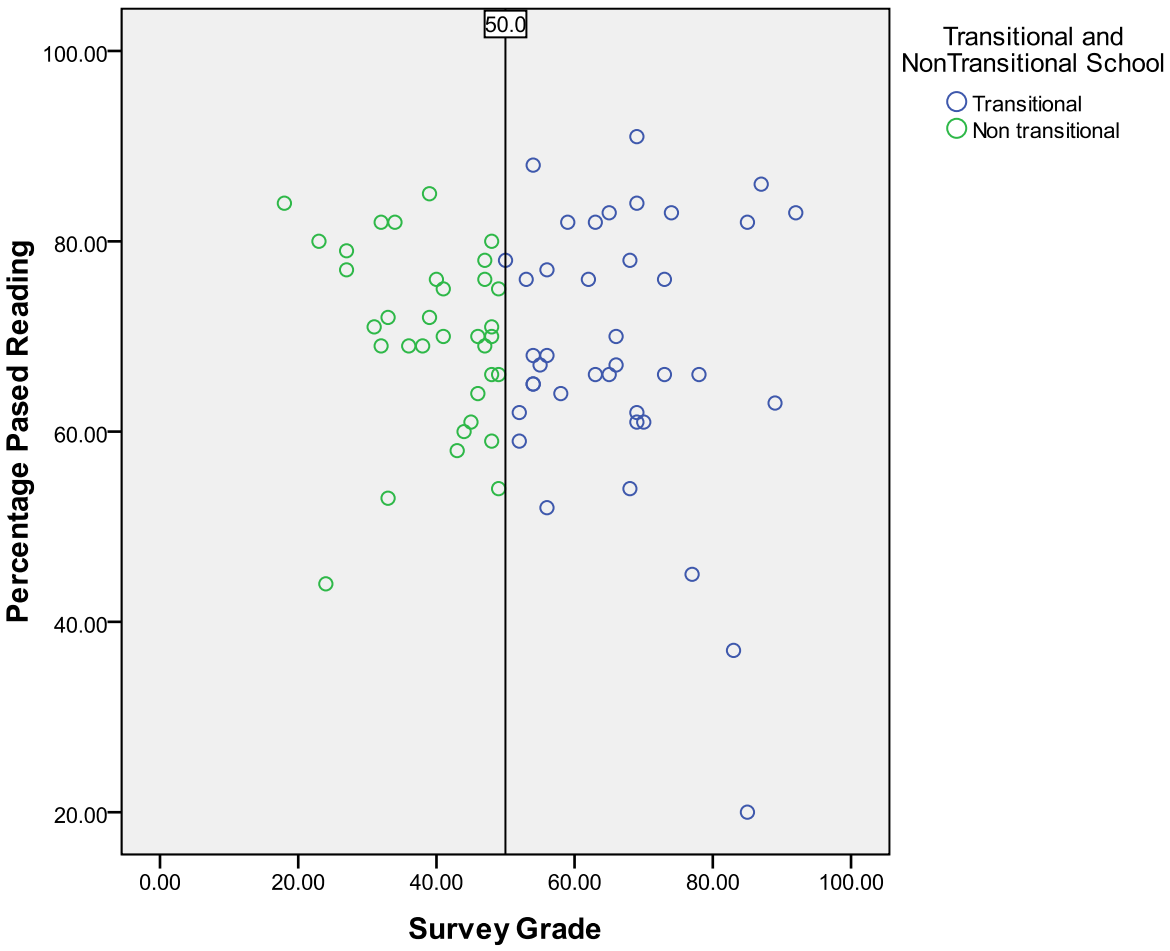

Figure 7: Transitional vs. Non-Transitional: Reading Proficiency.

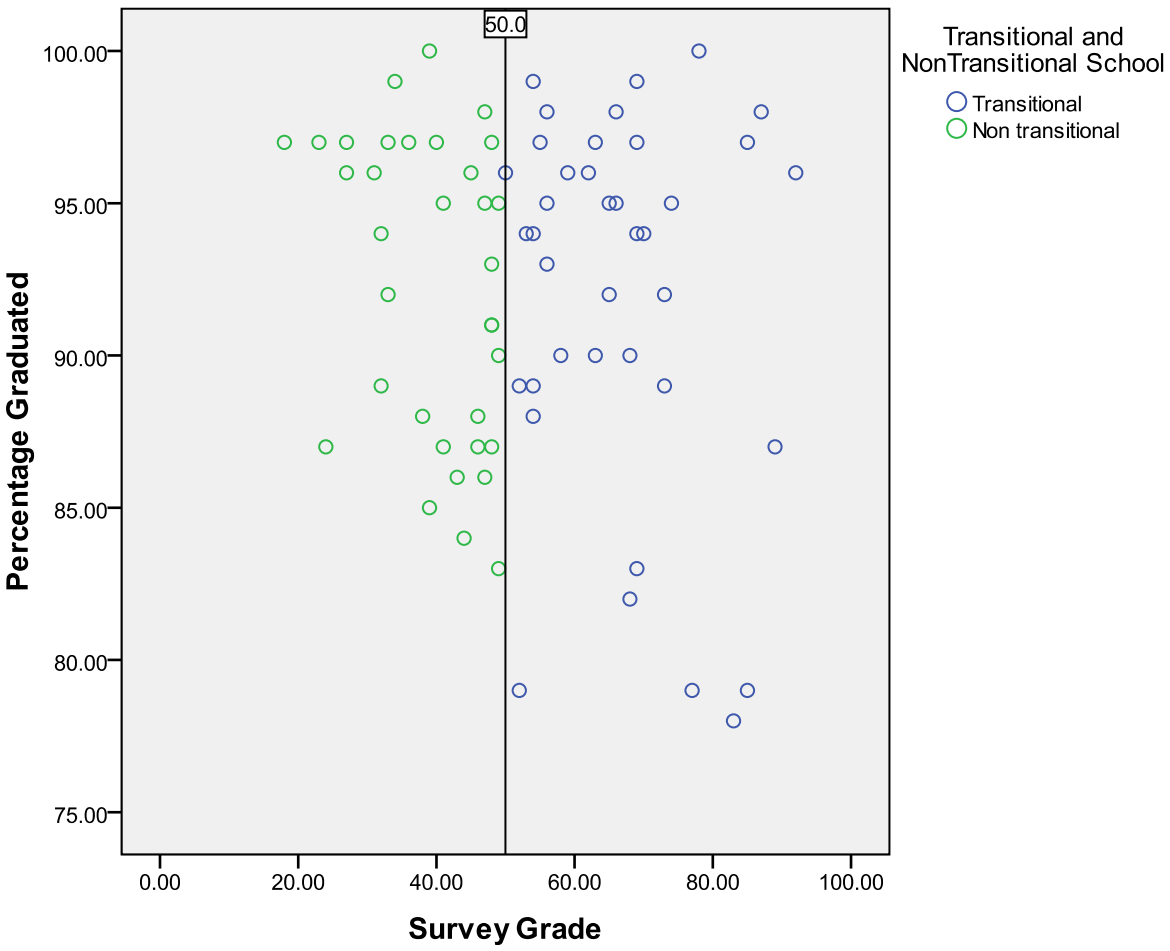

Figure 8: Transitional vs. Non-Transitional: Graduation Proficiency.

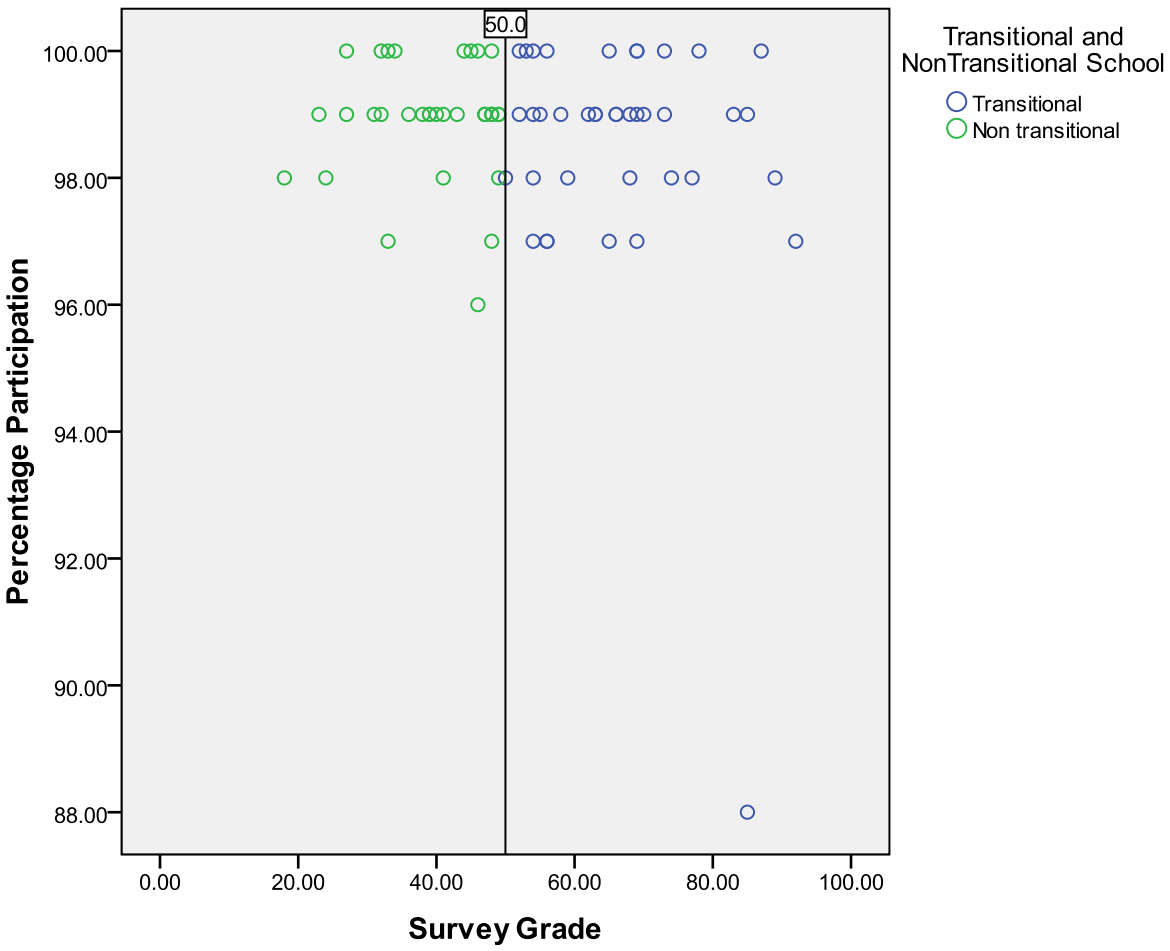

Figure 9: Transitional vs. Non-Transitional: Participation Proficiency.

Table 4*: Transitional vs. Non-Transitional: Academic Group Descriptive Statistics*

	Transitional and Non-Transitional School	N	Mean	Std. Deviation	Std. Error Mean
Percentage Passed Math	Transitional	39	60.5897	14.01638	2.24442
	Non transitional	34	61.3824	10.05746	1.72484
Percentage Passed Reading	Transitional	39	68.6923	14.33096	2.29479
	Non transitional	34	70.1765	9.49153	1.62778
Percentage Participation	Transitional	39	98.4872	1.99831	.31999
	Non transitional	34	98.9118	.93315	.16003
Percentage Graduated	Transitional	39	92.0256	6.17928	.98948
	Non transitional	34	92.2647	4.96844	.85208

Table 5*: Transitional vs. Non-Transitional: Academic Descriptive Statistics (t-tests)*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Percentage Passed Math	Equal variances assumed	2.174	.145	-.274	71	**.785**	-.79261	2.89429	-6.56366	4.97844
	Equal variances not assumed			-.280	68.590	**.780**	-.79261	2.83063	-6.44017	4.85495
Percentage Passed Reading	Equal variances assumed	3.323	.073	-.513	71	**.609**	-1.48416	2.89078	-7.24821	4.27988
	Equal variances not assumed			-.528	66.480	**.600**	-1.48416	2.81349	-7.10073	4.13240
Percentage Participation	Equal variances assumed	3.530	.064	-1.135	71	**.260**	-.42459	.37409	-1.17050	.32132
	Equal variances not assumed			-1.187	55.396	**.240**	-.42459	.35777	-1.14146	.29229
Percentage Graduated	Equal variances assumed	.536	.466	-.180	71	**.857**	-.23906	1.32541	-2.88186	2.40373
	Equal variances not assumed			-.183	70.569	**.855**	-.23906	1.30580	-2.84303	2.36490

Research Question 2

Question 2: Based on the demographics (percentage of economically disadvantaged students, total school enrollment, and the district's Aid Ratio) of the high schools, is there a significant statistical difference between transitional and non-transitional schools?

The significant difference was again defined as $p < .05$. The percent of economically disadvantaged students, total high school enrollment, and Aid-Ratio were shown to have no statistically significance to transitional or non-transitional high schools as influencing variables (see Table 9). The entire above mentioned variable resulted in $p > .05$.

Respectively, for Transitional and Non-Transitional high schools, table 6 (Percent of Economically Disadvantaged) had group sample sizes of 39 and 34, which achieved 7% power to detect a difference of 1.6 between the null hypothesis that both group means are 27.8 and the alternative hypothesis mean of group 2 is 26.2. This has an estimated group standard deviation of 18.8 and 14.1 and a significance level (alpha) of 0.05000 using a two-sided two-sample t-test. The Percent of Economically Disadvantaged resulted in t (39) = .409 with a mean and standard deviation for Transitional high schools (N=39), (M = 27.8462, SD = 18.81424) and for Non-Transitional high schools (N=34), (M = 26.2353, SD = 14.05629).

Using a two-sided two-sample t-test, table 7 (High School Enrollment) achieved a power of 41% to detect a difference of 266.7 between the null hypothesis that both group means are 1333.3 and the alternative hypothesis that the mean of group 2 is 1066.6 with estimated group standard deviations of 792.9 and 482.6 and with a significance level (alpha) of 0.05000. High School Enrollment resulted in t (39) = 1.704 with a mean and standard deviation for Transitional high schools (N=39), (M = 1333.2821, SD = 792.92347) and for Non-Transitional high schools (N=34), (M = 1066.6176, SD = 482.56097).

An additional two-sided two-sample t-test was ran, table 8 (Aid-Ratio) reflected a group sample sizes of 39 and 34 achieving 9% power to detect a difference of 0.0 between the null hypothesis that both group means are 0.5 and the alternative hypothesis that the mean of group 2 is 0.5 with estimated group standard deviations of 0.2 and 0.2 and with a significance level (alpha) of 0.05000. The Aid-Ratio resulted in t (39) = -.627 with a mean and standard deviation for Transitional high schools (N=39), (M = .4944, SD = .15976) and for Non-Transitional high schools (N=34), (M = .5179, SD = .15952). Table 10 indicates a summary of these SPSS results. It provides information about the means and the standard deviations and shows the performance of the actual t-tests. The p-values are in the columns labeled Sig (2-tailed). The 2-tailed calculation is meant to determine if there is a difference in the variables being considered.

Table 6*: Transitional vs. Non-Transitional: Percent of Economically Disadvantaged*

	Transitional and Non-Transitional School	N	Mean	Std. Deviation	Std. Error Mean
Percentage Economically Disadvantaged	Transitional	39	27.8462	18.81424	3.01269
	Non transitional	34	26.2353	14.05629	2.41063

Power	N1	N2	Ratio	Alpha	Beta	Mean1	Mean2	S1	S2
0.06965	39	34	0.872	0.05000	0.93035	27.8	26.2	18.8	14.1

Table 7*: Transitional vs. Non-Transitional: High School Enrollment*

	Transitional and Non-Transitional School	N	Mean	Std. Deviation	Std. Error Mean
High School Enrollment	Transitional	39	1333.2821	792.92347	126.96937
	Non transitional	34	1066.6176	482.56097	82.75852

Power	N1	N2	Ratio	Alpha	Beta	Mean1	Mean2	S1	S2
0.41057	39	34	0.872	0.05000	0.58943	1333.3	1066.6	792.9	482.6

Table 8*: Transitional vs. Non-Transitional: Aid Ratio*

	Transitional and Non-Transitional School	N	Mean	Std. Deviation	Std. Error Mean
Aid-Ratio	Transitional	39	.4944	.15976	.02558
	Non transitional	34	.5179	.15952	.02736

Power	N1	N2	Ratio	Alpha	Beta	Mean1	Mean2	S1	S2
0.09484	39	34	0.872	0.05000	0.90516	0.5	0.5	0.2	0.2

Table 9*: Transitional vs. Non-Transitional: Socio-Demographic Descriptive Statistics (t-test)*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Aid-Ratio	Equal variances assumed	.123	.726	-.627	71	**.533**	-.02348	.03746	-.09817	.05121
	Equal variances not assumed			-.627	69.678	**.533**	-.02348	.03746	-.09819	.05123
Percentage Economically Disadvantaged	Equal variances assumed	2.139	.148	.409	71	**.684**	1.61086	3.93516	-6.23563	9.45735
	Equal variances not assumed			.417	69.452	**.678**	1.61086	3.85843	-6.08560	9.30732
High School Enrollment	Equal variances assumed	2.422	.124	1.704	71	***.093***	266.66440	156.47336	-45.33462	578.66342
	Equal variances not assumed			1.759	63.872	***.083***	266.66440	151.55921	-36.12164	569.45045

Research Question 3

Based on the Stages of Concern Questionnaire, what are the teachers' concerns toward the implementation of ninth grade reform strategies in Transitional High Schools within Pennsylvania?

Participants' responses on the Stages of Concern Questionnaire (SoCQ) were analyzed to identify teachers' levels of concern. Item responses in each stage were summed to represent total raw scores, which were then converted to percentile scores (Appendix R). The percentile score means were used to represent intense concerns for all seven stages of concern. In order to derive meanings of the concerns that teachers experienced during the implementation of the Ninth Grade Traditional strategies, two procedures for interpreting Stages of Concern Questionnaire data were applied.

Hall et al. (2006) described the two procedures used in this study as a group profile analysis that is used to describe the concerns of the total sample of teachers and the subgroups, which in this study was categorized by years of experience and gender. The percentile score means (relative intensity peaks) were used to design a graphic composite profile for the 314 teachers (Figure 10), a graphical profile for experience (Figure 11), and a graphical profile for gender (Figure 12). A profile analysis can develop a rich clinical picture of both individual and group data by examining and interpreting high and low percentile scores for all seven stages of concern. The second procedure is an analysis of peak concerns (most intense concern) which was employed to identify each group's highest concern. According to their peak concern, teachers were grouped into levels of concerns (self concerns, task concerns, and impact concerns). Frequency and percentage in each level were also calculated.

According to Hall et al. (2006) this analysis of teacher profiles provides a complete description of the relative intensity of the seven stages of concerns that teachers experienced during the implementation of this innovation. In this section, several profile interpretations were made: total sample profile, four experience group profiles, and female and male profiles.

Stages of concern and total sample group. Analysis of the sample profile (see Figure 10) showed that the total sample's relative peak concern (87%) was related to awareness. The profile revealed almost similar secondary peaks at informational (60%) and personal (67%) stages. The profile also indicated that these teachers had low concerns related to consequence (24%), refocusing (34%), and collaboration (36%). This profile revealed that the sample represented users shared a concern of awareness to the ninth grade transitional strategies within their high schools. The teachers were also found to be concerned on an informational and personal level, while having a minimal concern about the consequences related to the innovation. The higher the Awareness Stage, the more the respondent is indicating that there are a number of other initiatives, tasks and activities that are of concern to the teacher. The second highest concern (personal) indicates ego-oriented questions and uncertainties. Respondents are most concerned about status, rewards and what effects the innovation might have on them, while the third concern (informational) indicates that the respondent would like to know more about the innovation. This concern is substantive in nature, focusing on the structure and function on the innovation (Hall et al., 2006).

Analysis of individuals' peak concerns (see Table 10) indicated that 280 of the respondents (89.1 %) had intensity peaks at the self-concern stages (awareness, informational, and personal); 6 respondents (1.9 %) reported task concern (management); and 28 respondents (9 %) had intensity peaks at the impact-concern stages (consequence, collaboration, and refocusing).

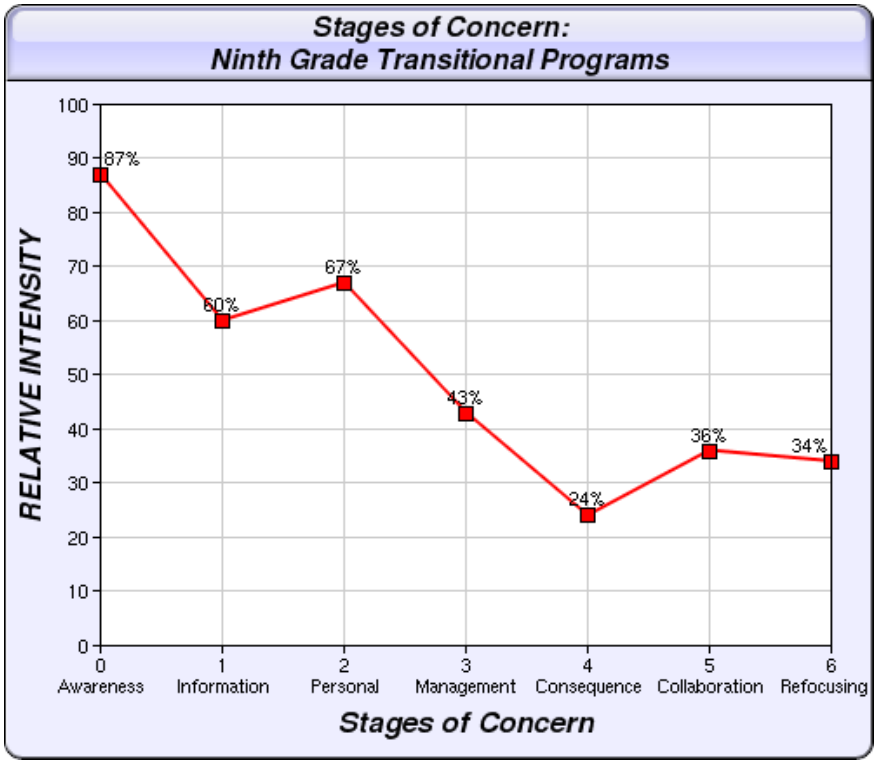

Figure 10: Stages of Concern Profile - Total Sample Group.

Table 10
Frequency and Percentage of Individual's Peak Concerns

SoC Levels	Frequency	Percentage
Self concern	280	89.1
Awareness	203	64.6
Informational	37	11.8
Personal	40	12.7
Task concern	6	1.9
Management	6	1.9
Impact concerns	28	9
Consequence	4	1.3
Collaboration	21	6.7
Refocusing	3	1.0

N = 314

According to Hall et al. (1979) and Rogers (1992), teachers who are at the four late stages of concerns (management, consequences, collaboration, and refocusing) are users having successfully

adopted the educational innovation. However, teachers reporting self-oriented concerns (awareness, informational, and personal) as within this study, are nonusers who have not yet accepted or are not fully aware of the innovation, and are somewhat more concerned about other activities. In this study, 34 teachers of the total sample size (N = 314) had concerns at the four later stages of concern (management, consequence, collaboration, and refocusing). Therefore, the analysis of peak concerns of individuals revealed that (10.9 %) of respondents had successfully adopted the Ninth Grade Transitional strategies, and are actively engaged in establishing the best use of the innovation. These teachers are focused on the processes and tasks of using the innovation and the best use of information and recourses, while also considering the impact of the innovation on students. They also coordinate and cooperate with other teachers regarding the innovation, while exploring enhancement opportunities for the betterment of the program.

Stages of concern and years of experience with the innovation. The group profile was analyzed according to teachers' years of experience with the innovation. The high and low concerns of the four experience groups (1-3 years, 4-6 years, 7-10 years, 11 or more years) were identified, and a graphical profile was developed (see Figure 11). The group profile analysis indicated that teachers with 1-3 years and 4-6 years of teaching experience had primary concern at the awareness stage, and secondary concern at the personal stage; which falls in the self concern and low consequence concerns. This combination of concerns indicates that teachers with 1-3 and 4-6 years of experience had little concern about or involvement with the ninth grade transitional strategies, and were uncertain about the demands and their role within this innovation. Teachers with 7-10 and 11 or more years of experience developed a primary concern at the awareness stage and share a secondary concern at the informational and personal stages, with low management and consequence concerns (see Table 11). This suggests a low to general concern about the innovation, but interest in

learning more about it. The analysis of group profile in relation to years of experience indicated that all of the participating teachers had concerns at the self levels when responding to their involvement in the ninth grade transitional programs. This result goes against the theory of concerns development by Fuller (1969), stating that, with more experience, teachers develop higher levels of impact concerns and concerns about pupils.

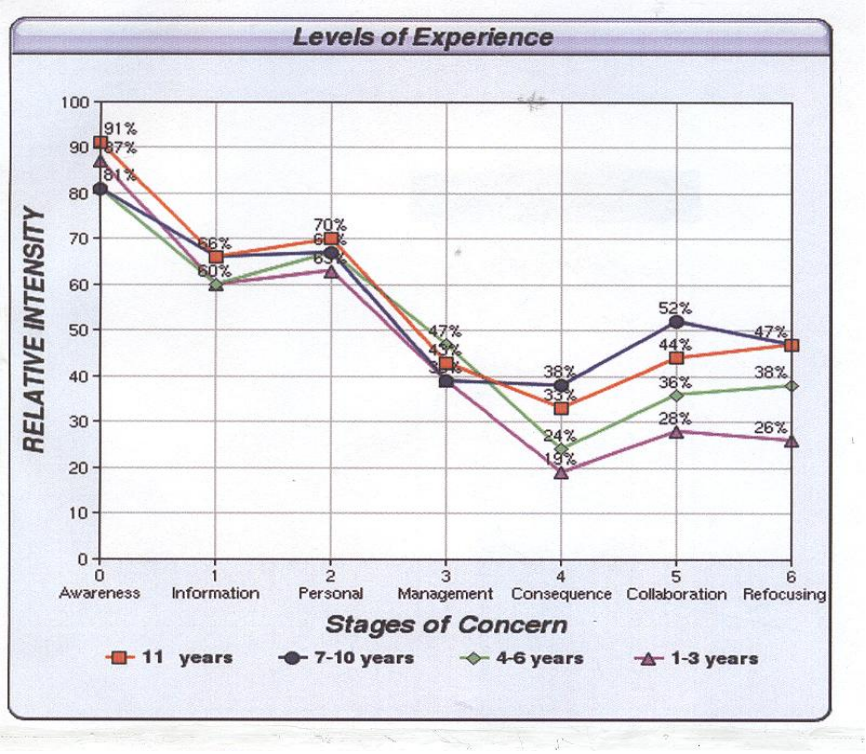

Figure 11: Stages of Concern Profile – Levels of Experience.

Table 11
Teachers' Percentile Scores in Relation to Levels of Experience

Stage	Aware	Inform	Personal	Manage	Conseq	Collab	Refocus
1-3 years	87	60	63	39	19	28	26
4-6 years	81	60	67	47	24	36	38
7-10 years	81	66	67	39	38	52	47
11 + years	91	66	70	43	33	44	47

Stages of concern and gender. The teachers' group profile was analyzed in relation to gender (see Figure 12). Females' profile revealed peak concern (81%) at the awareness stage, with a secondary peak (63%) at the personal stage, and with lowest consequence concern (21%). For the males, the highest concern (87%) was at the awareness stage, the second highest (67%) was at the personal stage; and the least intense concern (24%) was at consequence stage. The analysis of concern group profile in relation to gender indicated that the highest concern of both female and male teachers toward the implementation of the Ninth Grade Transitional programs was at the awareness stage. The general pattern of the two groups appears similar. Females' and males' percentile score means are summarized in Table 12.

Table 12
Females' and Males' Percentile Scores

Stage	Aware	Inform	Personal	Manage	Conseq	Collab	Refocus
Female	81	60	63	43	21	31	34
Male	87	63	67	43	24	36	34

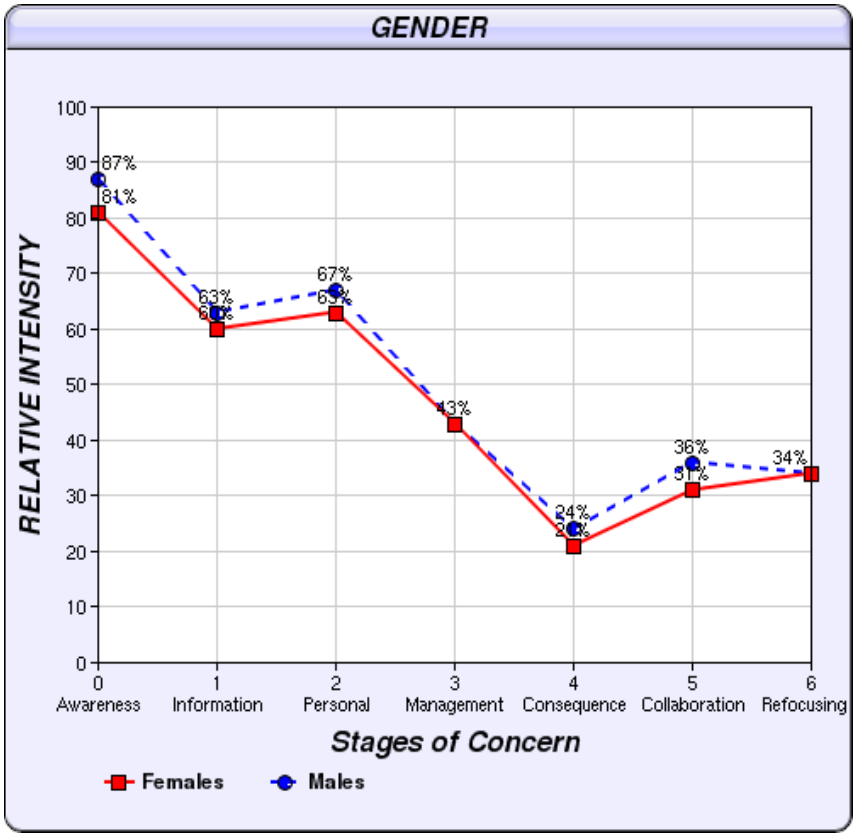

Figure 12: Stages of Concern Profile – Gender.

Similar to the total sample group, this gender profile revealed that the sample represented users shared a concern of awareness to the ninth grade transitional strategies within their high schools. The teachers were also found to be concerned on an informational and personal level, while having a minimal concern about the consequences related to the innovation. The higher the Awareness Stage, the more the respondent is indicating that there are a number of other initiatives, tasks and activities that are of concern to the teacher.

Research Question 4

Based on the Stages of Concern Questionnaire, are there significant relationships between teachers' stages of concern and their years of experience in a transitional program and gender?

In order to answer the final research question, multivariate analysis of variance (MANOVA) procedure was used to determine whether statistically significant relationships existed between the stages of concern and varying years of experience and gender. According to Tabachnick and Fidell (1996), when approaching several dependent variables, MANOVA is more powerful than separate ANOVA's. The MANOVA tests the effect of independent variables on a combination of dependent variables, whereas ANOVA tests the effect on only a single dependent variable at a time. The MANOVA compares the groups to determine whether the mean differences between the groups on the combination of dependent variables are likely to have occurred by chance. The Wilks' Lambda statistic, the most frequently used test from MANOVA, was used to determine significant relationships. The data were analyzed at the .05 level of significance.

The total raw scores for each of the seven levels of the Stages of Concern Questionnaire were entered in the SPSS as subjects' scores for each stage of concerns (dependent variables), and then tests of significance were applied to related factors of experience and gender (independent variables). Hall et al. (1979) strongly recommended the use of raw scores of stages of concern in statistical analyses instead of using the percentile scores.

The MANOVA indicated a $p < .001$ which is a significant mean difference among the four experience groups (1-3 years, 4-6 years, 7-10 years, and 11 or more years) and the

stages of concern. No significant mean differences were found among females and males and the seven stages of concern.

The MANOVA revealed statistical terminology that this researcher had to clearly define to better understand the data. An F-test (F) is used when comparing statistical models that have been fit to a data set, in order to identify the model that best fits the population from which the data were sampled. Most F-tests arise by considering a decomposition of the variability in a collection of data in terms of sum of squares. The test statistic in an F-test is the ratio of two scaled sums of squares reflecting different sources of variability. The Sum of Squares (SS) refers to an interim quantity used in the calculation of an estimate of the population variance. The Degree of Freedom (df) describes the number of values in the final calculation of a statistic that are free to vary. Lastly, Mean Squares (MS) refers to an estimate of the population variance based on the variability among a given set of measures.

When testing levels of experience, the MANOVA yielded a Wilks' Lamdba ratio of $F = 2.775$, $p < .000$. This statistic indicates that there are significant differences between levels of experience and their reported stages of concern. Table 13 indicates that the significant mean differences were only in the consequences, collaboration, and refocusing stages.

Table 13
MANOVA for Levels of Experience and Stages of Concern

Stages of Concern	SS	df	MS	F	P
Awareness	4.051	3	1.350	.859	.463
Informational	10.109	3	3.370	1.792	.149
Personal	7.834	3	2.611	1.064	.365
Management	3.696	3	1.232	1.032	.378
Consequence	52.649	3	17.550	7.903	.000
Collaboration	50.587	3	16.862	7.465	.000
Refocusing	37.306	3	12.435	8.960	.000

$p < .05$.

By obtaining a significant result on this multivariate test of significance, the tool began to investigate further in relation to the dependent variables. The MANOVA tested for multiple comparisons of the significant stages. More specifically, when comparing the years of experience to each other, the following groups showed significance: 1-3 years of experience compared to 7-10 years, $p < .000$ and 4-6 years compared to 7-10 years, $p < .005$ in the consequence stage yielded the statistical significance. In the collaboration stage, 1-3 years of experience compared to 7-10 years, $p < .000$ and 4-6 years compared to 7-10 years, $p < .003$; and within the refocusing stage, 1-3 years of experience compared to 4-6 years, $p < .008$; 7-10 years, $p < .000$; and 11 + years, $p < .007$ revealed a significant difference. These results may be related to how comfortable teachers become after several years of teaching experience.

In this section, MANOVA indicates that the levels of experience variables had a significant relationship to three teacher stages of concerns; while gender had no significant relationship to the reported stages of concern. Teachers' scores on the consequence, collaboration, and refocusing stages were significantly different. These results fell into the Impact-Concern level and were compared against levels of experience. The teachers expressed concerns of how the innovation would affect their students, showed interest in coordinating their efforts with others to maximize the innovation's effect, and had some ideas about something that would work even better (Hall et al., 2006).

In this analysis of multivariate tests, the MANOVA tested all variables together in this study. Two independent variables (levels of experience with four levels and gender with two levels) and seven dependent variables were statistically tested for significant difference in means.

Summary

This chapter discussed research findings from the Transitional and Non-Transitional high schools and concerns that teachers experienced when implementing Ninth Grade Transitional strategies. First, Transitional and Non-Transitional high school data was presented responding to the research questions related to academic performance, graduation, and participation rates from the grade 11, 2009 PSSA. Economically disadvantaged students, student enrollment and Aid-Ratio were additional variables used to ensure that this study was not compromised by unrelated demographics. Surveys were received from 148 high school principals, 73 met the criteria for this study.

Next, t-tests were performed to analyze academic achievement between the two school structures along with each schools socio-demographic factors. Mean scores were compared between all variables in an effort to determine significance.

Lastly, Stages of Concern data was presented responding to the final research questions related to teachers' concerns during the implementation of Ninth Grade Transitional strategies and their levels of experience and gender. Three Hundred and fourteen questionnaires assessed the highest peaks of concerns and were analyzed to determine teachers' perceptions during the innovation related to this study. MANOVA were performed to determine if there was significance between the seven stages of concern and teachers' experience and gender. Chapter Five will offer a summary, list contributions of the study related to the research data, and recommendations for future research.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

This study sought to determine if there was a significant difference in academic performance, graduation, and participation rates between Transitional and Non-Transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing ninth grade reform strategies. Data were analyzed from all participating high schools, as well as economically disadvantaged, total school enrollment, and Aid-Ratio subgroups. This study also investigated the relationships between teachers' stages of concerns and their levels of experience and gender. This chapter will reflect a summary of the study, conclusions of the research questions, and recommendations for the future.

The proposed research questions that guided this study were: (1) Based on 2009, Grade 11 PSSA scores, is there a significant statistical difference in the identified Transitional high schools' proficiency in Math, Reading, Graduation, and Participation Rates than Non-Transitional high schools? (2) Based on the demographics (percentage of economically disadvantaged students, total school enrollment, and the district's Aid Ratio) of the high schools, is there a significant statistical difference between transitional and non-transitional schools? (3) Based on the Stages of Concern Questionnaire, what are the teachers' concerns toward the implementation of ninth grade reform strategies in Transitional High Schools within Pennsylvania? (4) Based on the Stages of Concern Questionnaire, are there significant relationships between teachers' stages of concern and their years of experience in a transitional program and gender?

Summary of the Design

To frame the analysis of the research as it relates to Transitional and Non-Transitional high schools, it is important to note that transitional strategies begin well before students enter high school and exist beyond the ninth grade year. This transition into high school marks one of the most challenging for a large number of students (Fields, 2005). Daggett (2004) confirmed that this transition from eighth to ninth grade is a process that needs a specific plan that must have an accountability and follow-up component.

High schools that attribute success to their transitional programs have engaged in activities such as, but not limited to, pairing 8th and 9th grade teachers to shadow each other, requiring a freshmen seminar class, frequent subject area planning sessions of 9th grade teachers, and meeting with students and their parents the summer before the 9th grade with a contract implementation system for most students at-risk (Daggett, 2004). The results of this study may lend insight to educators regarding the importance of developing a Ninth Grade Transitional program in an effort to build relationships and other high school connections with these students. Some of the findings throughout this study are inconsistent with existing research, and will be highlighted throughout this chapter.

For the purpose of this study, the 11th grade PSSA scores served as the measuring tool, and were obtained for each of the participating high schools for determining academic performance, graduation, and participation rates. This was proven to be the most consistent tool, considering all Pennsylvania students in 11th grade would be held to the same criteria and target scores. Without a doubt, there are multiple measures that can be used to determine academic achievement. They range from classroom assessments, benchmark assessment data, and various standardized exams, which are extremely inconsistent due to variations in

expectations, grading scales, and depending on the standardized exams administered within each district. The data used for this study was available through Schoolmatters.com, Paayp.emetric, and the Pennsylvania Department of Education websites. Personnel from the PA Department of Education were also contacted and served as an excellent resource.

Two instruments were administered during this study, the Ninth Grade Reform Strategies Survey and the Stages of Concern Questionnaire. The Ninth Grade Reform Strategies survey was delivered to 570 high school principals throughout the Commonwealth of Pennsylvania, quarrying if there was evidence of Ninth Grade Reform or Transitional strategies exhibited within their high schools. Although one hundred and eighty-one (26%) high school principals responded, seventy-three (24%) met the criteria set for this study, which consisted of a 9-12 grade configuration and considered a public high school. The participating principals' responses were calculated which placed each of their high schools into a Transitional or Non-Transitional category. As defined for this study, any participating high schools in Pennsylvania exhibiting a raw score greater than or equal to 50 points on the Ninth Grade Reform Strategies Survey would be considered a Transitional high school, while a raw score of less than 49 points would be considered a Non-Transitional high school.

While it was expected that Transitional high schools would have higher academic performance, graduation, and participation rates than Non-Transitional high schools (including sub-groups of economically disadvantaged, total school enrollment, and Aid-Ratio), the difference did not reach a $p < .05$ significance level. The considered variables in this study from the 2009 PSSA results were the percentage of students that were proficient or advanced in Math from Transitional and Non-Transitional participating high schools; the percentage of students' proficient or advanced in Reading from Transitional and Non-

Transitional participating high schools; and the percentage of schools that met the graduation and participation rates from Transitional and Non-Transitional participating high schools. Additionally calculated for this study and to eliminate any influences, was the percentage of economically disadvantaged students, total school enrollment figures, and Aid-Ratio values per participating high school.

Descriptive statistics were used to describe the schools in the sample. The number of schools, range, minimum, maximum, mean, and standard deviation were used to describe the academic performance, graduation, and participation rates, including economically disadvantaged, total school enrollment, and Aid-Ratio subgroups. T-tests were performed between the variables of the study and the school structures. Multiple regression analysis was used to determine a relationship between the school structures and academic performance, graduation, and participation rates, including subgroups of economically disadvantaged, total school enrollment, and Aid-Ratio.

The second portion of this study was the administration of the Stages of Concern Questionnaire (SoCQ). Only Transitional high school teachers participated in taking the questionnaire. Three hundred fourteen questionnaires were successfully completed. Teachers' item responses were summed to obtain group raw scores, and these raw scores were then converted to percentiles in order to design graphical group profiles. Two procedures of concern analysis were employed. First, the group profile analysis revealed that all teachers had three high concerns related to the awareness, informational, and personal stages, which falls in the self-concern level. Teachers also reported low concerns at the consequence, collaboration, and refocusing stages. In relation to levels of experience with the innovation, the analysis of group profile revealed that all of the teachers, regardless of the

number of years they had implementing the ninth grade transitional strategies, shared in the self-concern level. Regarding teacher gender, the analysis of group profile indicated that both female and male teachers had peak concerns in the Awareness stage with the least intense concern at the consequence stage. Gender was also of the self-concerns level. Secondly, the analysis of individuals' peak concerns revealed that very few respondents (10.9 %) were users of the innovation.

The MANOVA was applied to test significant relationships between teachers' stages of concern, years of participation in a transitional program, and gender. The relationships between two independent variables (teaching experience and gender) and seven dependent variables (awareness, informational, personal, management, consequence, collaboration, and refocusing) were examined. Statistically significant differences were found between teachers' levels of experience and three of the seven, stages of concern: consequence, collaboration, and refocusing stages.

Key Findings

The relationship between school structure and academic performance, graduation, and participation rates, including subgroups of economically disadvantaged, total school enrollment, and Aid-Ratio was the focus for the first half of this study. Previous research had indicated the importance of a students' experience in the first year of high school and how it often will determine their success throughout high school and beyond (Williams & Richman, 2008). Other studies showed inconsistent evidence relative to Transitional programs, but some school districts attribute the efforts to students feeling supported and respected, while more students reportedly were passing their courses. Many other schools could not report notable impacts on achievement, attendance or GPA's; however, in some high schools where

transitional programs are fully operational, researchers attributed an 8% dropout rate, while schools without transitional programs averaged a dropout rate of 24% (Reents, 2002). The results of this study were consistent in showing no statistically significant difference in the school structures and academic performance, graduation and participation rates, economically disadvantaged, total school enrollment, and Aid-Ratio subgroups. In many instances, partial results of this study agreed with the existing literature that supports Transitional programs; although, the data of this study, like many others were unable to prove the relationships. Additional findings of this study were derived from the interpretation of the Stages of Concern Questionnaire data and the quantitative analysis of the stages of concern using MANOVA. The interpretation of the Stages of Concern Questionnaire data included two procedures: analysis of group profile and analysis of individuals' peak concerns.

First, the analysis of group profile revealed that teachers reported three high concerns related to awareness, informational, and personal stages. Teachers also indicated minimal concerns at the management, consequence, collaboration, and refocusing stages. An awareness concern means that the teachers had little concern about or involvement with the innovation; informational concern means that the teachers have a general awareness of the innovation and interest in learning more about it; and personal concern means that the teacher is uncertain about the demands of the innovation and their inadequacy to meet those demands and roles that they play during the innovation. Low consequence concern means that the teachers' attention focuses on impact of the innovation and on students in his/her immediate sphere of influence (see Appendix Q). Because all groups (total sample group, levels of experience, and gender) experienced peaks at Stages 0, 1 and 2, it can be inferred in this

profile that the sample represented users are interested in learning more about the innovation, but were not intensely concerned about the innovation's consequences for students or for collaborating with others. According to Hall et al. (1979) and Rogers (1992) groups of teachers who are at the four later stages of concern (management, consequence, collaboration, and refocusing) are users who have successfully adopted the educational innovation; however, the overall profile of the teachers in this study reported having self-oriented concerns (awareness, informational, and personal) and are nonusers who have not yet accepted the innovation. This lack of concern from the teachers could be related to yielding no significant difference towards academic performance, graduation, and participation rates used throughout this study.

The analysis of individuals' peak concerns revealed that (89.1 %) of the teachers had early self-oriented concerns (awareness, informational, and personal). This means that they felt personal threat in relation to the innovation. They wanted more information about how using the innovation would affect them. The analysis of the peak concerns of individuals revealed that very few respondents (10.9 %) in this study had successfully adopted strategies of Ninth Grade Transitional programs. This means that they were concerned about the best use of the innovation in relation to its impact on students. In addition, MANOVA analysis for significant difference revealed that there were statistical differences in means between levels of experience and three stages of concerns (consequence, collaboration, and refocusing stages). Hypothetically, these results may be the result of individuals moving from nonuse and barely sufficient awareness of an innovation to beginning use and, eventually, more highly sophisticated use, their concerns move through the defined stages (Hall et al., 2006).

Contribution of the Study

This study was designed to make significant contributions to Ninth Grade Transitional programs in Pennsylvania and to the research on teacher concerns related to Ninth Grade Transitional Programs. Moreover, this researcher had been directly involved in implementing Ninth Grade Transitional strategies over the past ten years in the high school in which she works. Some of these strategies have been experimental and some noteworthy. Without a doubt, a combination of strategies such as a ninth grade lunch, requiring a freshmen seminar course, offering a faculty/student mentoring program, and meeting with students and their parents the summer before ninth grade have been the most successful experiences for this researcher. There have been notable differences in attendance rates, discipline referrals, and tardiness rates as well. Due to the implementation of these ninth grade transitional strategies, several students at this researchers attending high school have better developed their personal skills. As a result of these strategies, students are able to solve their conflicts, work as team players, manage their time better, and are building capacity in leadership. Most importantly, students are able to seek out the assistance of a caring adult during the school day.

This study may be useful to policy makers because it revealed teachers' concerns toward Transitional programs and uncovered teachers' perceptions about the implementation process of transitional strategies. Stakeholders would find this information beneficial in understanding teachers' concerns, perceptions, and attitudes toward Ninth Grade Transitional programs or any initiative in general. This study does introduce the SoCQ as a reliable instrument in collecting data about teachers' concerns and could contribute to a research methodology if the study was to be replicated. Identifying teachers' concerns could help

design appropriate interventions to resolve the concerns of teachers toward the adoption of a program. Thus, appropriate decisions could be made about when and how to provide support and interventions during the implementation process. According to Wood (1989), not all innovations find their way into the actual daily practice in classrooms unless the implementation is monitored and appropriate interventions are provided. Vaughan added that personalizing the innovation by identifying teachers' concerns is the key to successful intervention (1997).

Although, results of this study have significant implication for staff developers and researchers using SoCQ, data generated from the SoCQ need to be interpreted with caution, and careful redesign of questions and subscales of the SoCQ should be considered in order to more accurately measure the Stages of Concern. Qualitative data from open-ended questions or journals might be considered as a means of gathering detailed information concerning issues teachers face as they implement an innovation. The SoCQ, a component of the Concern-Based Adoption Model, was introduced as an effective tool to facilitate the change process, throughout this study.

The Stages of concern is a primary dimension of the Concern-Based Adoption Model (CBAM), which was developed at the University of Texas R&D Center to conceptualize and facilitate educational change (Hall et al., 1979). Seven hypothesized stages of concern that reflect three dimensions have been defined: self concern (awareness, informational, and personal); task concern (management); and impact concerns (consequence, collaboration, and refocusing) and its scoring manual, developed and revised by Hall et al. (1979 & 2006), is based on data collected from research on American subjects. This questionnaire has been

proven valid and reliable to provide meaningful data about teachers' concerns and the data of this study yielded results primarily in the Self – Concern level.

Lastly, the findings of this study could contribute to the theory of concern development. The research of Fuller (1969) concluded that teachers' concerns develop from early-stage concerns (self concerns) to late-stage concerns (concerns with pupils). Fuller's model assumes that concerns tend to shift from personal, to task, and finally to impact concerns. Moreover, Hall (1985) reported that the research on teacher concerns has proven that teachers' concerns toward an innovation are developmental if the innovation is appropriate and supportive interventions have been provided. The theory of concern development was based on the information gathered from research that had also been done on American samples. For this study, the population of Pennsylvania public high school teachers with a 9-12 grade configuration was used. The SoCQ collected data for this study and the findings were not consistent with the theory of concern development. Nonetheless, with continued use of the innovation and a second or third administration of the SoCQ, the responses are subject to change over time and teachers are likely to move between the stages. The findings of this study could contribute to the developmental understanding of how and when the concerns of teachers progress.

Summary

There is no doubting the level of accountability being placed on school districts during their quest for making AYP. Multiple reform efforts have been considered the solution, but how do we know which one is the most effective? Evaluating these programs is the next logical step in determining effectiveness. During this study, no statistically significant relationship was found between school structures (Transitional and Non-

Transitional) and academic performance, graduation, and participation rates, including subgroups of economically disadvantaged, total school enrollment, and Aid-Ratio. These results were compared to the existing literature that showed the importance of the transitioning year, the transitional components that make up a successful high school, and the negative effects a poor transition can have on a student. Nonetheless, there was no relative data to Transitional Programs and correlations to student achievement, when using the PSSA's as measuring criteria.

In school reform, change must be viewed as a direct impact on individuals; therefore, individuals' perception, attitudes, and concerns must be considered, and appropriate interventions and support provided. Understanding change and its effects are important in the facilitation of a change process. The change assumptions are important to consider when adopting an innovation (Hall et al., 2006). What makes change efforts so complex is that individuals have different needs during each phase of the change process. It takes three to five years for complex changes to move from initiation to institutionalization (Fullan, 1991). This study showed a statistically significant difference in relation to the teachers' concerns and levels of experience. The following recommendations are suggestions based on the findings of the review of literature about change and the applied component of the CBAM. They are also based on the findings of teachers' concerns toward the implementation of Ninth Grade Transitional programs in the high schools of Pennsylvania.

Recommendations for the Future

This component of the Concerns-Based Adoption Model (CBAM) has proven to be an appropriate tool in identifying concerns and in providing effective interventions. The CBAM and all of its components are discussed in detail in chapter two. Since identifying

teachers' stages of concern is of a great importance in order to provide appropriate support and assistance to facilitate the adoption of an innovation, the following recommendations for the future are made regarding the use of the SoCQ as it relates to Ninth Grade Transitional Reform:

1. To dispel any bias notions and for the purpose of accuracy and replication, criteria should be established at a National level to determine what makes up a Transitional High School. Having universal criteria would yield to greater statistical significance.

2. Expanding this study to include other states or regions could provide greater meaning for the school practitioners. Including a longitudinal study to follow the changes in teachers' concerns over time, while the other two dimensions of the CBAM (LoU and IC) should also be included. Additional research could further address the relationships between stages of concern and other factors, such as the extent of training related to transitional programs and a focus on ninth grade teachers only.

3. Although several of the participating principals met the criteria of 'transitional,' the results of this study revealed that the majority of teachers are nonusers of transitional strategies. The teachers' profile suggests that the principals should listen before intervening to determine the reasons for the uncertainty about the expectations of the innovation and the implementation process. The change facilitators are recommended to develop professional development that is informative of the innovation in an effort to decrease the threat the teachers are experiencing. Teacher meetings led by the Principal should be held weekly within each high school to reinforce the goals of transitional efforts. In addition, teacher collaboration must be incorporated to allow for sharing of materials and modeling best practice strategies.

4. The change facilitators are encouraged to provide both on-site and Web support for teachers during the implementation process. For effective implementation of an innovation, change facilitators need to identify the concerns and provide appropriate interventions that resolve those concerns. Hord et al. (2006) suggested a set of interventions (Appendix Q) that might respond to teachers' stages of concern. This set of interventions is a useful resource as change facilitators design necessary professional development.

The nature of an innovation and the types of intervention could positively or negatively affect the appearance of the desirable impact concerns that lead to higher levels of innovation implementation. Further, the Stages of Concern Questionnaire is only a diagnostic tool used to reveal concerns that teachers experience during the implementation process. Therefore, caution must be taken in the use of the SoCQ as a stand-alone tool. Change facilitators of the high schools should not use the SoCQ for an evaluation of teachers, but as facilitation for change and improvement in the implementation.

5. The Stages of Concern instrument should be used to provide baseline and follow-up data for monitoring an implementation, such as transitional strategies. Principals are encouraged to aggregate data by individual teacher and school profiles for their school district. This information would be used in an effort to provide the principals with the necessary support during the innovation and to stay informed of the progress of the teachers.

6. Conducting qualitative research to include several procedures of Stages of Concern data collection; open-ended responses, interviews, and focus groups, may yield to more accurate results. The open-ended response and interview techniques might also help identify teacher's resistance to change.

7. The consideration of additional research into why the three stages of concern (consequence, collaboration, and refocusing) were found to be significant based on level of experience and why the other concerns were not significant.

Conclusion

With the target increasing for all Pennsylvania students to 100% proficiency on math and reading PSSA's by the year 2014, *No Child Left Behind* has been the premise behind the newest comprehensive reforms in high schools. For the majority of these programs, the effectiveness is still to be determined. Although only modest effects on student outcomes are evident within the current research, it is said that when high schools successfully implement structural reforms to support incoming freshman, they provide some of the necessary conditions for success in ninth grade. When these reforms are coupled with specific instructional and curricular reforms, students can only strengthen their academic achievement and long-term success in high school (Williams & Richmond, 2008).

The transition into high school was the focus of this study and is clearly marked as one of the most difficult events for many students. Ridiculed by high dropout rates, low graduation rates, and low achievement, public high schools are not being represented positively in the public eye. Moreover, the numbers of students choosing options like cyber-school, etc. are growing exponentially. This research revealed five key initiatives that states, and districts should address to support the transition of students into high schools:

- establish a data and monitoring system that will both diagnose why students are struggling;
- address the instructional needs of students who enter high school unprepared for rigorous, college preparatory work;

• personalize the learning environment to lower the sense of anonymity and address individual needs;

• build capacity within the faculty and school leadership in low-performing schools to address diverse student needs; and

• create connections to the community, employers, and institutes of higher education to better engage students and help them see the relevance of their coursework (National High School Center, 2008).

Although these initiatives are presented as stand-alone strategies, they will need to work in conjunction with other initiatives and serve as a platform for more comprehensive secondary school reforms.

Based on the results of this study and others, school districts that are considering implementing Ninth Grade Transitional strategies must be aware of the limited research correlated to student achievement and improving a district's AYP status. It should also be noted that there was significance within this study between three of the seven stages of concern and levels of experience. These results could be a reflection of teachers gaining professional identify and confidence with years of experience. Nonetheless, focusing on data to identify students who veer off the road to graduation and developing a plan to address the needs of students who leave middle school unprepared should ease a student's struggle beyond high school.

Federal and/or state school officials would serve as a vital resource in providing consistent criteria for Transitional programs. Existing transitional high schools could also serve as a resource for non-transitional high schools. States officials should consider providing incentives for schools and districts that participate in transitional programs. They

should support successful transitions and consider contributing resources to the process of implementating, monitoring, and evaluating. Barber & Olsen (2004) agreed that scaling up these strategies across schools and districts are difficult, but states would have to be instrumental in financially contributing and hiring selective personnel to research which programs are the best fit for our Nations high schools. Finally, in an effort to ensure student success, a comprehensive and consistent plan must be developed to ease the transition into high school for all students, regardless of the high school they attend.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD

APPROVAL LETTER

Indiana University of Pennsylvania
www.iup.edu

Office of the Assistant Dean for Research
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
www.iup.edu/research

January 27, 2010

Kathy Perry
205 Rice Drive
Latrobe, PA 15650

Dear Ms. Perry:

Your proposed research project "Teachers' Concerns of Ninth Grade Transitional Programs in Pennsylvania High Schools: A Comparison of Academic Performance, Graduation, and Participation Rates,"(Log No. 10-018) has been reviewed by the IRB as an expedited review and is approved for the period of January 27, 2010 to January 27, 2011.

Although your human subjects review process is complete, please note that **you cannot begin your research until you have submitted your Research Topic Approval Form.** Enclosed is a copy of the form.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

Should you need to continue your research beyond January 27, 2011 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

I wish you success as you pursue this important endeavor.

Sincerely,

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

JAM:jeb

xc: Dr. Joseph Marcoline, Dissertation Advisor
Ms. Beverly Obitz, Thesis and Dissertation Secretary

beyond expectations

APPENDIX B

RESEARCH TOPIC APPROVAL FORM LETTER

Indiana University of Pennsylvania
www.iup.edu

School of Graduate Studies and Research
Stright Hall, Room 129
210 South Tenth Street
Indiana, Pennsylvania 15705-1046

P 724-357-2244
F 724-357-2715
tmack@iup.edu
www.iup.edu/graduatestudies

February 1, 2010

Kathy Perry
205 Rice Drive
Latrobe, PA 15650

Dear Ms. Perry:

Now that your research project has been approved by the Institutional Review Board for the Protection of Human Subjects, I have signed your Research Topic Approval Form. Based on this form, you indicated your anticipated graduation date as August 2010. You must apply for graduation by June 1, 2010. This means that your dissertation must be submitted to the School of Graduate Studies and Research by July 15, 2010.

The Thesis/Dissertation Manual is available at http://www.iup.edu/thesismanual. Deadlines for your expected graduation are listed on the website at http://www.iup.edu/page.aspx?id=6011.

If you find that you are not going to be able to complete your dissertation in time for the scheduled graduation, please contact Beverly Obitz (724/357-2224 or bobitz@iup.edu) so that we can update our records. In addition to assistance provided by your Graduate Coordinator and Committee Chairperson, Ms. Obitz can also answer any questions you may have regarding formatting guidelines.

If you change your topic or your committee, a new Research Topic Approval Form must be completed.

I wish you well and hope you find this experience to be rewarding.

Sincerely,

Timothy P. Mack, Ph.D
Dean

xc: Dr. Mary Ann Rafoth, Dean
Dr. Robert Millward, Graduate Coordinator
Dr. Joseph Marcoline, Dissertation Advisor
Ms. Julie Bassaro, Secretary

TPM:bjo/afterirbdis

beyond expectations

APPENDIX C

PILOT COVER LETTER (EX - PRINCIPALS)

Informed Consent Cover Letter
Invitation to Participate in the Pilot (Ex-Principals)

March 1, 2010

Dear Ex-High School Principals:

My name is Kathy Perry and I am in the process of completing a dissertation for a D.Ed. in Administration and Leadership at Indiana University of Pennsylvania. The purpose of this pilot study is to increase the reliability, validity and practicability of a Ninth Grade Reform Strategies Survey. This study is to determine if there is a significant difference between transitional and non-transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing these strategies. Your participation in this study is crucial and will assist in how well the questions are written and to gain feedback on the overall construction of the survey. Please find attached to this email a guide to assist you in responding to piloting this survey. Any feedback should be forwarded to my email and is greatly appreciated. This web-based survey and critique should take approximately 20 minutes to complete.

Indiana University of Pennsylvania supports the practice of protection of human subjects participating in research. This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730). There are no known risks or discomforts associated with this research. Please be aware that even if you agree to participate in this survey study, you are free to withdraw at any time and you may do so without penalty. Although your participation is solicited through email, it is strictly voluntary. Your email address is only identified through the online survey system that is being used to host this survey. Please complete this online survey by **March 15, 2010.** Your completion of this survey by clicking on the provided link or copying the link into the URL bar of a browser implies consent.

If you have any questions or require additional information, please feel free to contact either of us as listed below. We appreciate your time and cooperation and look forward to you taking the time to complete this survey and providing any feedback to better assist me in my research.

If you choose not to participate, please disregard this email communication.

Sincerely,

Kathy L. Perry
sphn@iup.edu
Doctoral Candidate
205 Rice Dr
Latrobe, PA 15650
(724) 532-0253

Dr. Joseph F. Marcoline (Advisor)
j.f.marcoline@iup.edu
Administration and Leadership Studies
311 Davis Hall
Indiana, PA 15705
(724) 357-4815

APPENDIX D

INSTITUTIONAL REVIEW BOARD

MODIFIED APPROVAL LETTER

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

April 20, 2010

Kathy L. Perry
205 Rice Drive
Latrobe, PA 15650

Dear Ms. Perry:

Your proposed modifications to your previously approved research project, "Teachers' Concerns on Ninth Grade Transitional Programs in PA High Schools: A Comparison of Academic Performance," (Log No. 10-018) have been reviewed by the IRB and are approved as an expedited review for the period of April 19, 2010 to January 27, 2011. I will report this to the Board.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

Should you need to continue your research beyond January 27, 2011 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

I wish you success as you pursue this important endeavor.

Sincerely,

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

JAM:jeb

xc: Dr. Joseph Marcoline, Dissertation Advisor

APPENDIX E

PRINCIPAL'S SURVEY INSTRUMENT

PRINCIPAL'S SURVEY INSTRUMENT

Demographics – Please complete the following

1. How many years have you been principal?
    a. 0-5 years
    b. 6-10 years
    c. 11-15 years
    d. 16-20 years
    e. 21+ years

2. Select your age group.
    a. 25-35 years old
    b. 36-45 years old
    c. 46-55 years old
    d. 56-65 years old
    e. 66+ years old

3. Provide the grades within your high school.
    a. 7-12
    b. 8-12
    c. 9-12
4. Approximately what percent of ninth graders are promoted to tenth?
    a. 95-100%
    b. 89-94%
    c. 83-88%
    d. 77-82%
    e. 76% or lower

5. What is the student population in the high school?
    a. Below-600
    b. 601-1000
    c. 1001-1500
    d. 1501-2000
    e. 2001 +

The following survey questions are designed to determine if the high school in which you are principal exhibit **Ninth Grade Reform Strategies.** Please select the answer that best fits the high school.

1. Is there a pairing of 8th and 9th grade teachers who shadow each other in order to have a better understanding of the challenges and opportunities of the two grade levels?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

2. Is time set aside for small-group sessions of 8th grade students with 9th grade counselors?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

3. Are certified teachers used for the purpose of remediation?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

4. Is there a program for 8th grade students to be paired with outstanding high school role models?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

5. Is time allotted for in-depth scheduling of the incoming 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

6. Has a parent transition advisory council been established that meets several times with 9th and 8th grade staff leaders?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

7. Are frequent parent meetings scheduled throughout the 8th and 9th grade years with school personnel?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

8. Is there a special parent-teacher conference schedule just for the students of 9th grade?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

9. Are frequent subject area planning sessions scheduled for teachers of 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

10. Has the implementation of student-led conferences with teachers and parents been established in the high school?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

11. Is there a consistent or required use by students of an agenda or weekly planner, with follow-up accountability by teachers, as necessary?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

12. Is there a special quarterly awards assembly just for 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

13. Is there a separate 9th grade lunch provided that does not include other grade levels?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

14. Is there easy access to intervention for any 9th grade student who feels he or she is being bullied by another student?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

15. Are there upper-class student mentors available to support struggling 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

16. Are there special teachers/ faculty mentors available to support struggling 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

17. Are there individual meetings between teachers or teams of teachers concerning 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

18. Are career exploration initiatives that connect academics to the work world established for 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

19. Is there a system for identifying 8th graders with attendance issues?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

20. Is it established that there will be meetings with the students and their parents the summer before the 9th grade year begins with a contract implemented clearly stating attendance and academic expectations?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

21. Are summer success academies implemented before the 9th grade school year begins?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

22. Is common teacher planning time scheduled within the Master Schedule for 9th grade teachers?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

23. Are 9th grade interdisciplinary teams of teachers established that assign all students to a "house" (a school within a school)?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

24. Is there a special freshmen seminar required class?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

25. Is time allotted for the data (i.e., State assessments, benchmark assessments, grades, attendance, etc.) of these 9th grade students to be analyzed by the 9th grade staff members?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

26. Is there a designated guidance counselor assigned to 9th grade students only?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

27. Is there a designated administrator assigned to 9th grade students only?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

28. In your professional opinion as principal, do the majority of ninth grade teacher's possess passion, enthusiasm and commitment to the success of 9th grade students?
    a. Always
    b. Almost Always
    c. Sometimes
    d. Almost Never
    e. Never

29. Who has been the most instrumental in organizing the above mentioned reform strategies?
    a. Principal
    b. Assistant Principal
    c. Guidance Counselor
    d. Classroom Teacher
    e. Other (Specify) _____

30. After completing this survey, how likely are you to agree that your school could be considered as a Transitional high school?
    a. Strongly agree
    b. Agree
    c. Disagree
    d. Strongly disagree
    e. Not Applicable

APPENDIX F

PILOTING SURVEY QUESTIONS FORM

Piloting the Survey

Listed below are functions to consider while reviewing the survey:

- To check the clarity of the questionnaire items, instructions and layout
- To gain feedback on the validity of the questionnaire items, operationalization of the constructs and the purposes of the research
- To check readability levels for the target audience
- To gain feedback on the type of question and its format (e.g. rating scale, multiple choice, open, closed etc.)
- To gain feedback on response categories for closed questions and multiple choice items, and for the appropriateness of specific questions or stem questions
- To identify omissions, redundant and irrelevant items
- To gain feedback on leading questions
- To gain feedback on the attractiveness and appearance of the question
- To gain feedback on the layout, sectionalizing, numbering and itemization of the questionnaire
- To check the time to complete the questionnaire
- To check whether the questionnaire is too long or too short, too easy or to difficult
- To generate categories from open-ended responses to use as categories for closed responses-modes (e.g. rating scale items)
- To identify how motivating/non-motivating/sensitive/threatening/intrusive offensive items might be
- To identify redundant questions (e.g. those questions which consistently gain a total ‘yes’ or ‘no’ response and those questions which little discriminability
- To identify which items are too easy, too difficult, too complex or too remote

From the respondents' experience

- To identify commonly misunderstood or non-completed items (e.g. by studying common patterns of unexpected response and non-response

- To try out the coding/classification system for data analysis (Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education (6th Ed.)* p.341.

In the space provided below, please comment on the NINTH GRADE REFORM STRATEGIES SURVEY and feel free to reference any of the above mentioned functions. Email your responses to kperry@wiu.k12.pa.us.

[Type your comments in this text box. Please include your title and the number of years you served as High School Principal.]

APPENDIX G

INVITATION TO PARTICIPATE

PENNSYLVANIA HIGH SCHOOL PRINCIPALS

Informed Consent Cover Letter
Invitation to Participate – PA High School Principals

April 26, 2010

Dear HIGH SCHOOL PRINCIPAL:

My name is Kathy Perry and I am in the process of completing a dissertation for a D.Ed. in Administration and Leadership at Indiana University of Pennsylvania. The purpose of this study is to determine if there is a significant difference between transitional and non-transitional high schools within Pennsylvania while identifying concerns that teachers experienced when implementing these strategies. I am asking you to click on the link at the end of this email to take a web-based survey that will take about 10 minutes to complete. Your participation in this study is encouraged and will assist in determining the effectiveness of these strategies as they relate to academic performance, graduation, and participation rates. If your responses classify your school as a Transitional High School according to my research, the teachers will be asked to participate in a questionnaire entitled *The Stages of Concern Questionnaire (SoCQ)* to identify their concerns during the implementation of these strategies.

Indiana University of Pennsylvania supports the practice of protection of human subjects participating in research. This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730). There are no known risks or discomforts associated with this research. Please be aware that even if you agree to participate in this survey study, you are free to withdraw at any time and you may do so without penalty. Although your participation is solicited through email, it is strictly voluntary. Your email address is only identified through the online survey system that is being used to host this survey. Please complete this online survey by **May 21, 2010.**

If you have any questions or require additional information, please feel free to contact either of us as listed below. We appreciate your time and cooperation and look forward to you taking the time to complete this survey and providing any feedback to better assist me in my research.

If you choose not to participate, please disregard this email communication.

Sincerely,

Kathy L. Perry
sphn@iup.edu
Doctoral Candidate
205 Rice Dr
Latrobe, PA 15650
(724) 532-0253

Dr. Joseph F. Marcoline (Advisor)
j.f.marcoline@iup.edu
Administration and Leadership Studies
311 Davis Hall
Indiana, PA 15705
(724) 357-4815

APPENDIX H

FOLLOW-UP POST EMAIL (7 DAYS)

Follow-up Post Email (7 Days)

May 24, 2010

Approximately one week ago you should have received a survey seeking your feedback in an effort to identify ninth grade transitional reform strategies used in high schools throughout the Commonwealth of Pennsylvania. Your participation in this survey is encouraged and will assist in determining the effectiveness of these strategies as they relate to academic performance, graduation, and participation rates.

It would be greatly appreciated if you could take the time to complete this survey if you have not already done so. Although your participation is solicited, it is strictly voluntary.

You will find the directions and information related to this survey within this communication. Again, I would like to personally thank you in advance for your time in completing this survey if you choose to do so.

Sincerely,

Kathy L. Perry
sphn@iup.edu
Doctoral Candidate
205 Rice Dr
Latrobe, PA 15650
(724) 532-0253

Dr. Joseph F. Marcoline (Advisor)
j.f.marcoline@iup.edu
Administration and Leadership Studies
311 Davis Hall
Indiana, PA 15705
(724) 357-4815

APPENDIX I

FOLLOW-UP POST EMAIL (14 DAYS)

Follow-up Post Email (14 Days)

May, 2010

Approximately two weeks ago you should have received a survey seeking your feedback in an effort to identify ninth grade transitional reform strategies used in high schools throughout the Commonwealth of Pennsylvania. Your participation in this survey is encouraged and will assist in determining the effectiveness of these strategies as they relate to academic performance, graduation, and participation rates.

It would be greatly appreciated if you could take the time to complete this survey if you have not already done so. Although your participation is solicited, it is strictly voluntary.

You will find the directions and information related to this survey within this communication. Again, I would like to personally thank you in advance for your time in completing this survey if you choose to do so.

Sincerely,

Kathy L. Perry
sphn@iup.edu
Doctoral Candidate
205 Rice Dr
Latrobe, PA 15650
(724) 532-0253

Dr. Joseph F. Marcoline (Advisor)
j.f.marcoline@iup.edu
Administration and Leadership Studies
311 Davis Hall
Indiana, PA 15705
(724) 357-4815

APPENDIX J

TEACHERS' INVITATION TO PARTICIPATE

Informed Consent Cover Letter
Invitation to Participate (High School Teachers)

September 30, 2010

Dear High School Teacher:

My name is Kathy Perry and I am in the process of completing my dissertation for a D.Ed. in Administration and Leadership at Indiana University of Pennsylvania.

You are receiving this letter because the high school principal voluntarily completed a survey about NINTH GRADE REFORM STRATEGIES. For the purpose of this study, your high school has been identified as a Transitional High School that has implemented strategies specific to transitioning students from 8th to 9th grade. In determining concerns that teachers experience, your participation in the Stages of Concern Questionnaire (SoCQ) is needed. This questionnaire identifies seven different stages of feelings and perceptions that educators experience when they are implementing a new program or practice. Your participation in this questionnaire could offer future incite in professional development and student achievement. Please complete both the web-based and the demographic survey attached below. This should take approximately 10 minutes to complete.

Indiana University of Pennsylvania supports the practice of protection of human subjects participating in research. This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730). There are no known risks or discomforts associated with this research. Please be aware that even if you agree to allow the high school teachers to participate in this survey study, they are free to withdraw at any time and may do so without penalty. Although your participation is solicited through email, it is strictly voluntary. The email addresses of the teachers are only identified through the online survey system that is being used to host this survey. All other information obtained will not mention the district and will be incorporated into group data along with other high schools in Pennsylvania.

If you have any questions or require additional information, please feel free to contact either of us as listed below. Your participation is greatly appreciated.

http://www.sedl.org/concerns/index.cgi?sc=w8c965

Sincerely,

Kathy L. Perry
kperry@wiu.k12.pa.us
Doctoral Candidate
205 Rice Dr
Latrobe, PA 15650
(724) 532-0253

Dr. Joseph F. Marcoline (Advisor)
j.f.marcoline@iup.edu
Administration and Leadership Studies
311 Davis Hall
Indiana, PA 15705
(724) 357-4815

APPENDIX K

PERMISSION TO USE

THE STAGES OF CONCERN QUESTIONNAIRE (SoCQ)

ADVANCING RESEARCH
SEDL
IMPROVING EDUCATION

SEDL License Agreement

To: Kathy Perry (Licensee)
High School Principal
Derry Area School District
205 Rice Drive
Latrobe, PA 15650

From: Nancy Reynolds
Information Associate
SEDL
Information Resource Center—Copyright Permissions
4700 Mueller Blvd.
Austin, TX 78723

Subject: License Agreement to reproduce and distribute SEDL materials

DATE: November 16, 2009

Thank you for your interest in using the ***Stages of Concern Questionnaire*** (SoCQ 075) published by SEDL and written by Archie A. George, Gene E. Hall, and Suzanne M. Stiegelbauer in 2006 as Appendix A, pages 79-82 in *Measuring Implementation in Schools: The Stages of Concern Questionnaire*, as a PDF document on an accompanying CD-ROM, in electronic format as SEDL's *Stages of Concern Questionnaire (SoCQ) Online* and published on pages 48-49 in the SEDL publication *Taking Charge of Change*, revised ed., published in 2006, 2nd printing, 2008, that was written by Shirley M. Hord, William L. Rutherford, Leslie Huling, and Gene E. Hall.

This instrument will be referred to as the "work" in this License Agreement. SEDL is pleased to grant permission to the Licensee who will administer the *SoCQ Online* and will include the work in her dissertation titled *Teachers' Concerns About Ninth Grade Reform Strategies* at Indiana University of Pennsylvania. The following are the terms, conditions, and limitations governing this limited permission to reproduce the work:

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Fax: 512-476-2286
www.sedl.org
4700 MUELLER BLVD., AUSTIN, TX 78723

2. No adaptations, deletions, or changes are allowed with the exception of substituting the words "the innovation" with a word or phrase that participants will recognize, such as the name of the innovation or initiative, and questions can be added to identify demographic indicators or participants before or after the instrument, but otherwise, the wording and order of items cannot be changed. No derivative work based on or incorporating the work will be created without the prior written consent of SEDL.

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I'm e-mailing you a PDF of this agreement. Please print and sign one copy below, indicating that you understand and agree to comply with the above terms, conditions and limitations, and send the original back to me. If you wish to keep a copy with original signatures, please also print, sign, and return a second copy and, after I receive and sign the copies, I'll return one with both of our signatures to you.

Thank you, again, for your interest in using the ***Stages of Concern Questionnaire (SoCQ) Online***. If you have any questions about this License Agreement, please contact me at 800-476-6861, ext. 6548 or 512-391-6548, or by e-mail at nancy.reynolds@sedl.org.

Sincerely,

Nancy Reynolds — Nancy Reynolds for SEDL

December 1, 2009 — Date signed

Agreed and accepted:

Signature: Kathy L Perry — 11/21/09 — Date signed

Printed Name: Kathy L. Perry

APPENDIX L

PERMISSION LETTER TO EXTEND THE USE OF THE STAGES OF CONCERN QUESTIONNAIRE

ADVANCING RESEARCH
SEDL
IMPROVING EDUCATION

SEDL License Agreement

To: Kathy Perry (Licensee)
Principal
Derry Area High School
988 N. Chestnut St. Ext.
Derry, PA 15627

From: Nancy Reynolds
Information Associate
SEDL
Information Resource Center—Copyright Permissions
4700 Mueller Blvd.
Austin, TX 78723

Subject: License Agreement to reproduce and distribute SEDL materials

DATE: November 16, 2009; revised October 12, 2010

Thank you for your interest in using the ***Stages of Concern Questionnaire*** (SoCQ 075) published by SEDL and written by Archie A. George, Gene E. Hall, and Suzanne M. Stiegelbauer in 2006 as Appendix A, pages 79-82 in *Measuring Implementation in Schools: The Stages of Concern Questionnaire*, as a PDF document on an accompanying CD-ROM, in electronic format as SEDL's *Stages of Concern Questionnaire (SoCQ) Online* and published on pages 48-49 in the SEDL publication *Taking Charge of Change*, revised ed., published in 2006, 2nd printing, 2008, that was written by Shirley M. Hord, William L. Rutherford, Leslie Huling, and Gene E. Hall.

This instrument will be referred to as the "work" in this License Agreement. SEDL is pleased to grant permission to the Licensee who will administer the *SoCQ Online* and will include the work in her dissertation titled *Teachers' Concerns About Ninth Grade Reform Strategies* at Indiana University of Pennsylvania. The following are the terms, conditions, and limitations governing this limited permission to reproduce the work:

1. All distribution activities shall be solely in the electronic format of SEDL's *Stages of Concern Questionnaire (SoCQ) Online* for which the Licensee will purchase the use of surveys to be accessed only by designated participants in a password-protected environment and shall be solely for educational, non-profit use only. Precise compliance with the following terms and conditions shall be required for any permitted reproduction of the work described above.

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Fax: 512-476-2286
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4700 MUELLER BLVD., AUSTIN, TX 78723

2. No adaptations, deletions, or changes are allowed with the exception of substituting the words "the innovation" with a word or phrase that participants will recognize, such as the name of the innovation or initiative, and questions can be added to identify demographic indicators or participants before or after the instrument, but otherwise, the wording and order of items cannot be changed. No derivative work based on or incorporating the work will be created without the prior written consent of SEDL.

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I'm e-mailing you a PDF of this agreement. Please print and sign one copy below, indicating that you understand and agree to comply with the above terms, conditions and limitations, and send the original back to me. If you wish to keep a copy with original signatures, please also print, sign, and return a second copy and, after I receive and sign the copies, I'll return one with both of our signatures to you.

Thank you, again, for your interest in using the ***Stages of Concern Questionnaire (SoCQ) Online***. If you have any questions about this License Agreement, please contact me at 800-476-6861, ext. 6548 or 512-391-6548, or by e-mail at nancy.reynolds@sedl.org.

Sincerely,

Nancy Reynolds — October 25, 2010

Nancy Reynolds for SEDL — Date signed

Agreed and accepted:

Signature: Kathy L Perry — 10/19/10

Date signed

Printed Name: Kathy L. Perry

APPENDIX M

DEMOGRAPHIC SURVEY INSTRUMENT

DEMOGRAPHIC SURVEY INSTRUMENT

PLEASE COMPLETE THE FOLLOWING:

1. Gender: Male _____ Female _____

2. Age: 20-29 _____ 30-39 _____ 40-49 _____ 50-59 _____ 60-69 _____

3. School Name _____

4. District Name _____

5. Highest Degree Earned _____ Major _____

6. Other educational qualifications _____

7. Total number of years teaching _____

8. Grade levels you teach: 9 _____ 10 _____ 11 _____ 12 _____

9. How many years have you been teaching or participating in the use of Ninth Grade Strategies (assisting in a smooth transition from 8^{th} to 9^{th} grade)?

   1-3 years _____ 4-6 years _____ 7-10 years _____ 11+ years _____

10. Have you received formal training in teaching Ninth Grade Transitional Strategies?

    Yes _____ No _____

APPENDIX N

FOLLOW-UP TEACHER PARTICIPATION

ON THE STAGES OF CONCERN QUESTIONNAIRE

Participating Teachers:

October 12, 2010

Approximately one week ago you should have received a questionnaire seeking your feedback in identifying seven different stages of feelings and perceptions that educators experience when they are implementing a new program or practice. As mentioned before, your participation in this questionnaire could offer future incite in professional development and student achievement.

Please complete both the web-based and the demographic survey attached below.
This should take approximately 10 minutes to complete.

It would be greatly appreciated if you could take the time to complete this survey if you have not already done so. Although your participation is solicited, it is strictly voluntary.

You will find the directions and information related to this questionnaire within the link below. Again, I would like to personally thank you in advance for your time in completing this questionnaire.

http://www.sedl.org/concerns/index.cgi?sc=w8c965

Sincerely,

Kathy L. Perry
kperry@wiu.k12.pa.us
Doctoral Candidate
205 Rice Dr
Latrobe, PA 15650
(724) 532-0253

Dr. Joseph F. Marcoline (Advisor)
j.f.marcoline@iup.edu
Administration and Leadership Studies
311 Davis Hall
Indiana, PA 15705
(724) 357-4815

APPENDIX O

STAGES OF CONCERN QUESTIONNAIRE (SoCQ)

Please complete the following:

1. How long have you been involved with the innovation, not counting this year?
   Never ___ 1 year ___ 2 years ___ 3 years ___ 4 years ___ 5 or more ___

2. In your use of the innovation, do you consider yourself to be a:
   non-user ___ novice ___ intermediate ___ old hand ___ past user ___

3. Have you received formal training regarding the innovation (workshops, courses)?
   Yes ___ No ___

4. Are you currently in the first or second year of use of some major innovation or program other than this one?
   Yes ___ No ___

   If yes, please describe briefly:

   _____

   _____

   _____

Thank you for your help!

SoCQ 075

Stages of Concern Questionnaire

Name (optional): _____

The purpose of this questionnaire is to determine what people who are using or thinking about using various programs are concerned about at various times during the adoption process.

The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about various programs to many years' experience using them. Therefore, **many of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time.** For the completely irrelevant items, please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

For example:

This statement is very true of me at this time.	0	1	2	3	4	5	6	(7)
This statement is somewhat true of me now.	0	1	2	3	(4)	5	6	7
This statement is not at all true of me at this time.	0	(1)	2	3	4	5	6	7
This statement seems irrelevant to me.	(0)	1	2	3	4	5	6	7

Please respond to the items in terms of **your present concerns,** or how you feel about your involvement with **this** innovation. We do not hold to any one definition of the innovation so please think of it in terms of your own perception of what it involves. Phrases such as "this approach" and "the new system" all refer to the same innovation. Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with the innovation.

Thank you for taking time to complete this task.

0	1 2	3 4 5	6 7
Irrelevant	Not true of me now	Somewhat true of me now	Very true of me now

Circle One Number For Each Item

1. I am concerned about students' attitudes toward the innovation.	0 1 2 3 4 5 6 7
2. I now know of some other approaches that might work better.	0 1 2 3 4 5 6 7
3. I am more concerned about another innovation.	0 1 2 3 4 5 6 7
4. I am concerned about not having enough time to organize myself each day.	0 1 2 3 4 5 6 7
5. I would like to help other faculty in their use of the innovation.	0 1 2 3 4 5 6 7
6. I have a very limited knowledge of the innovation.	0 1 2 3 4 5 6 7
7. I would like to know the effect of reorganization on my professional status.	0 1 2 3 4 5 6 7
8. I am concerned about conflict between my interests and my responsibilities.	0 1 2 3 4 5 6 7
9. I am concerned about revising my use of the innovation.	0 1 2 3 4 5 6 7
10. I would like to develop working relationships with both our faculty and outside faculty using this innovation.	0 1 2 3 4 5 6 7
11. I am concerned about how the innovation affects students.	0 1 2 3 4 5 6 7
12. I am not concerned about the innovation at this time.	0 1 2 3 4 5 6 7
13. I would like to know who will make the decisions in the new system.	0 1 2 3 4 5 6 7
14. I would like to discuss the possibility of using the innovation.	0 1 2 3 4 5 6 7
15. I would like to know what resources are available if we decide to adopt the innovation	0 1 2 3 4 5 6 7
16. I am concerned about my inability to manage all that the innovation requires.	0 1 2 3 4 5 6 7
17. I would like to know how my teaching or administration is supposed to change.	0 1 2 3 4 5 6 7
18. I would like to familiarize other departments or persons with the progress of this new approach.	0 1 2 3 4 5 6 7

0	1 2	3 4 5	6 7
Irrelevant	Not true of me now	Somewhat true of me now	Very true of me now

Circle One Number For Each Item

19. I am concerned about evaluating my impact on students.	0 1 2 3 4 5 6 7
20. I would like to revise the innovation's approach.	0 1 2 3 4 5 6 7
21. I am preoccupied with things other than the innovation.	0 1 2 3 4 5 6 7
22. I would like to modify our use of the innovation based on the experiences of our students.	0 1 2 3 4 5 6 7
23. I spend little time thinking about the innovation.	0 1 2 3 4 5 6 7
24. I would like to excite my students about their part in this approach.	0 1 2 3 4 5 6 7
25. I am concerned about time spent working with nonacademic problems related to the innovation.	0 1 2 3 4 5 6 7
26. I would like to know what the use of the innovation will require in the immediate future.	0 1 2 3 4 5 6 7
27. I would like to coordinate my efforts with others to maximize the innovation's effects.	0 1 2 3 4 5 6 7
28. I would like to have more information on time and energy commitments required by the innovation.	0 1 2 3 4 5 6 7
29. I would like to know what other faculty are doing in this area.	0 1 2 3 4 5 6 7
30. Currently, other priorities prevent me from focusing my attention on the innovation.	0 1 2 3 4 5 6 7
31. I would like to determine how to supplement, enhance, or replace the innovation.	0 1 2 3 4 5 6 7
32. I would like to use feedback from students to change the program.	0 1 2 3 4 5 6 7
33. I would like to know how my role will change when I am using the innovation.	0 1 2 3 4 5 6 7
34. Coordination of tasks and people is taking too much of my time.	0 1 2 3 4 5 6 7
35. I would like to know how the innovation is better than what we have now.	0 1 2 3 4 5 6 7

APPENDIX P

STATEMENTS ON THE STAGES OF CONCERN QUESTIONNAIRE

Arranged According to Stage

Question Number	Statement
	Stage 0 Awareness Concern
3	I don't even know what the innovation is.
12	I am not concerned about this innovation.
21	I am completely occupied with other things.
23	Although I don't know about this innovation, I am concerned about things in the area.
30	At this time, I am not interested in learning about this innovation.
	Stage 1 Informational Concern
6	I have a very limited knowledge about the innovation.
14	I would like to discuss the possibility of using the innovation.
15	I would like to know what resources are available if we decide to adopt this innovation.
26	I would like to know what the use of the innovation will require in the immediate future.
35	I would like to know how this innovation is better than what we have now.
	Stage 2 Personal Concern
7	I would like to know the effect of organization of my professional status.
13	I would like to know who will make the decisions in the new system.
17	I would like to know how my teaching or administration is supposed to change.
28	I would like to have more information on time and energy commitments required by this innovation.
33	I would like to know how my role will change when I am using the innovation.
	Stage 3 Management Concern
4	I am concerned about not having enough time to organize myself each day.
8	I am concerned about conflict between my interests and my responsibilities.
16	I am concerned about my inability to manage all the innovation requires.
25	I am concerned about time spent working with nonacademic problems related to this innovation.
34	Coordination of tasks and people is taking too much of my time.

Question Numbers	Statement
	Stage 4 Consequence Concern
1	I am concerned about students' attitude toward this innovation.
11	I am concerned about how the innovation affects students.
19	I am concerned about evaluating my impact on students.
24	I would like to excite my students about their part in this approach.
32	I would like to use feedback from students to change the program.
	Stage 5 Collaboration Concern
5	I would like to help other faculty in their use of the innovation.
10	I would like to develop working relationships with both our faculty and outside faculty using this innovation.
18	I would like to familiarize other departments or persons with the progress of this new approach.
27	I would like to coordinate my effort with others to maximize the innovation's effects.
29	I would like to know what other faculty are doing in this area.
	Stage 6 Refocusing Concern
2	I now know of some other approaches that might work better.
9	I am concerned about revisiting my use of the innovation.
20	I would like to revise the innovation's instructional approach.
22	I would like to modify our use of the innovation based on the experiences of our students.
31	I would like to determine how to supplement, enhance, or replace the innovation.

APPENDIX Q

GUIDELINES FOR CONCERN INTERVENTION
By
Hord, Rutherford, Huling-Austin, and Hall (1987)

Stage 0 Awareness Concern

A. If possible, involve teachers in discussions and decisions about the innovation and its implementation.

B. Share enough information to arouse interest, but not so much that it overwhelms.

C. Acknowledge that a lack of awareness is expected and reasonable, and that no questions about the innovation are foolish.

D. Encourage unaware persons to talk with colleagues who know about the innovation.

E. Take steps to minimize gossip and inaccurate sharing of information about the innovation.

Stage 1 Informational Concern

A. Provide clear and accurate information about the innovation.

B. Use a variety of ways to share information-verbally, in writing, and through any available media. Communicate with individuals and with small and large groups.

C. Have persons who have used the innovation in other settings visit with your teachers. Visits to user schools could also be arranged.

D. Help teachers see how the innovation relates to their current practices, both in regard to similarities and differences.

E. Be enthusiastic and enhance the visibility of others who are excited.

Stage 2 Personal Concern

A. Legitimize the existence and expression of person concerns. Knowing these concerns are common and that others have them can be comforting.

B. Use personal notes and conversations to provide encouragement and reinforce personal adequacy.

C. Connect these teachers with others whose personal concerns have diminished and who will be supportive.

D. Show how the innovation can be implemented sequentially rather than in one big leap. It is important to establish expectations that are attainable.

E. Do not push innovation use, but encourage and support it while maintaining expectations.

Stage 3 Management Concern

A. Clarify the steps and components of the innovation. Information from innovation configurations will be helpful here.

B. Provide answers that address the small specific "how-to" issues that are so often the cause of management concerns.

C. Demonstrate exact and practical solutions to the logistical problems that contribute to these concerns.

D. Help teachers sequence specific activities and set timelines for their accomplishments.

E. Attend to the immediate demands of the innovation, not what will be or could be in the future.

Stage 4 Consequence Concern

A. Provide these individuals with opportunities to visit other settings where the innovation is in use and to attend conferences on the topic.

B. Don't overlook these individuals. Give them positive feedback and needed support.

C. Find opportunities for these persons to share their skills with others.

D. Share with these persons information pertaining to the innovation.

Stage 5 Collaboration Concern

A. Provide these individuals with opportunities to develop those skills necessary for working collaboratively.

B. Bring together those persons, both within and outside the school, who are interested in collaboration.

C. Help the collaboration establish reasonable expectations and guidelines for the collaborative effort.

D. Use these persons to provide technical assistance to others who need assistance.

E. Encourage the collaborators, but don't attempt to force collaboration on those who are not interested.

Stage 6 Refocusing Concern

A. Respect and encourage the interest these persons have for finding a better way.

B. Help these individuals channel their ideas and energies in ways that will be productive rather than counterproductive.

C. Encourage these individuals to act on their concerns for program improvement.

D. Help these people access the resources they may need to refine their ideas and put them into practice.

E. Be aware of and willing to accept the fact these persons may replace or significantly modify the existing innovations.

APPENDIX R

STAGES OF CONCERN RAW SCORE

PERCENTILE CONVERSION CHART

Raw Scale Score	Percentile Scores						
	Stages						
	0	1	2	3	4	5	6
0	0	5	5	2	1	1	1
1	1	12	12	5	1	2	2
2	2	16	14	7	1	3	3
3	4	19	17	9	2	3	5
4	7	23	21	11	2	4	6
5	14	27	25	15	3	5	9
6	22	30	28	18	3	7	11
7	31	34	31	23	4	9	14
8	40	37	35	27	5	10	17
9	48	40	39	30	5	12	20
10	55	43	41	34	7	14	22
11	61	45	45	39	8	16	26
12	69	48	48	43	9	19	30
13	75	51	52	47	11	22	34
14	81	54	55	52	13	25	38
15	87	57	57	56	16	28	42
16	94	60	59	60	19	31	47
17	94	63	63	65	21	36	52
18	96	66	67	69	24	40	57
19	97	69	70	73	27	44	60
20	98	72	72	77	30	48	65
21	99	75	76	80	33	52	69
22	99	80	78	83	38	55	73
23	99	84	80	85	43	59	77
24	99	88	83	88	48	64	81
25	99	90	85	90	54	68	84
26	99	91	87	92	59	72	87
27	99	93	89	94	63	76	90
28	99	95	91	95	66	80	92
29	99	96	92	97	71	84	94
30	99	97	94	97	76	88	96
31	99	98	95	98	82	91	97
32	99	99	96	98	86	93	98
33	99	99	96	99	90	95	99
34	99	99	97	99	92	97	99
35	99	99	99	99	96	98	99