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ABSTRACT

This study focused on how school district leaders in Connecticut are translating educational reform policies into instructional practice. It explored how school improvement initiatives were being implemented to improve student performance on the Connecticut Academic Performance Test (CAPT) and examined the ways in which these initiatives were integrated with staff development support and reinforced through teacher evaluation processes. Preliminary data were gathered though a quantitative survey with some open-ended questions, and then followup in-person and telephone interviews were conducted with 114 principals to probe selected responses more deeply. In general, study findings show that the CAPT has had an impact on educational reform in Connecticut, especially in the areas of curriculum and assessment reform in Connecticut. The strongest effects have been in the area of aligning curriculum standards with the CAPT and in the area of using CAPT-like assessments such as holistic scoring and rubrics. In urban districts with lower socioeconomic profiles, principals appeared concerned about having to apply a "one size fits all" kind of assessment to their students. Study findings also show that some meaningful strides have been made in linking staff development to school improvement initiatives. Findings also show that teacher evaluation has been the least impacted in terms of integration with staff development and school improvement initiatives. The doctoral dissertation on which this conference paper is based, "An Exploration of How School District Leaders Are Responding to the Connecticut Academic Performance Test (CAPT)," by Italia Ann-Terrone Negroni, is attached. (SLD)

An Exploration of How School District Leaders Are Responding to the Connecticut Academic Achievement Test (CAPT).

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Purposes: This study focused on how school district leaders in Connecticut are translating educational reform policies into instructional practice. It explored how school improvement initiatives were being implemented to improve student performance on the Connecticut Academic Performance Test (CAPT). It also examined in what ways, if any, these initiatives were integrated with staff development support and were reinforced through teacher evaluation processes. Finally, it documented what similarities or differences existed among schools with respect to implementation and integration of school improvement initiatives, staff development support and teacher evaluation processes when they are grouped by Connecticut's Educational Reference Groups (ERGs).

In attempting to translate state mandated standards and assessments into instructional practice, there appears to be attempts among the states to link school improvement initiatives with staff development and teacher evaluation. But the question is whether these connections are being applied in an integrated and systemic manner for the purpose of improving student achievement. The belief, that no one initiative alone can significantly increase student achievement, finds its roots in the philosophy of W. Edwards Deming (1993) who described a "system" as a network of interdependent components that work together to accomplish the system's goals.

The challenge is creating the environment for school improvement initiatives to flourish by integrating them effectively with staff development supports and teacher evaluation processes (teacher evaluation/incentives). While the literature review for this study indicated sporadic attempts across the country to link school improvement initiatives with staff development supports and teacher evaluation processes, the concept of integration has not been studied for any

systematic or even serendipitous application. Although the federal and state role seems to be creating the context for encouraging reform in this area, it is still up to the districts and schools to create and sustain the staff development supports and the teacher evaluation processes to enable school improvement initiatives to have a positive impact on student achievement.

Theoretical Framework: A modified version of *Iwanicki's Integrated Approach* (1996, 1994, 1990) was chosen to explore which school improvement initiatives school district leaders in Connecticut are implementing in response to the CAPT, in what ways, if any, are these initiatives being integrated with staff development support and teacher evaluation processes, and if any patterns emerge when schools are grouped by socioeconomic Educational Reference Groups (ERGs).

The case for integrating school improvement initiatives with staff development supports and teacher evaluation processes is confirmed in the education reform literature by a number of noteworthy researchers including Cawelti, (1994, 1997) Darling-Hammond (1985, 1994, 1996, 1997, 1999), Fuhrman (1995), Newman, King and Rigdon (1997) and Schlechty (1990). Their research findings indicate that school improvement initiatives centered around standards and assessment, along with professional development and accountability, need to be implemented in an integrated way that focuses on the critical importance of teaching and learning. Moreover, the U.S. Department of Education's Office of Educational Research and Improvement (Sashkin & Egermeier, 1993) adds strength to this argument by recommending that the interconnected operational strategies necessary to effect any systemic change include fixing the parts (school improvement initiatives), fixing the people (staff development), and fixing the school's accountability structure (teacher evaluation processes).

Iwanicki (1996) and Webster and Mendro (1995) explain how this integrated, rather than disjointed, approach has school improvement working together with staff development and teacher evaluation in a common effort to enhance school effectiveness and to achieve school goals. In addition, strong support for this model of organizing teacher evaluation as an accountability measure with staff development and school improvement initiatives is echoed in the 1996 Breaking Ranks report of the National Association of Secondary School Principals. Further support for this integrated approach comes from Darling-Hammond (1997) who emphasizes the need for all reform efforts to be an integral part of school improvement and staff development as well as teacher evaluation. It appears that even in successful schools, teacher evaluation is not having an impact on student learning because it is implemented in isolation and not in combination with school improvement initiatives (Iwanicki, 1990). Additionally, rather than providing staff development and using teacher evaluation to complement the school improvement initiatives that are being implemented, the tendency is to add more new initiatives.

The question becomes once a school improvement initiative is adopted, what kinds of pressures do school district leaders face with respect to integrating them with staff development support and structures for accountability? And more specifically, does the socioeconomic make up of the school affect the various components or their integration? Finally, is the integrated approach being applied in practice in Connecticut and are there any discernable socioeconomic patterns with respect to the outcomes on the Connecticut Academic Performance Test (CAPT).

Methods: To address the five research questions, preliminary data were gathered through the use of a quantitative survey that also included some open-ended questions. Follow-up in-person and telephone interviews were then conducted to probe more deeply into selected survey responses. Of the 139 principals of the comprehensive high schools in Connecticut, one

hundred fourteen principals (82%) responded to the survey over a period of five months from October 1998 through February 1999. At the close of the five-month survey period, all educational reference groups were represented in the respondents with a participation range of 66% to 94%. The survey used a modified version of Iwanicki's Integrated Approach (1994) as a framework to examine how school district leaders in the various ERGs are responding to state-mandated standards and assessments for the purpose of improving student achievement. In addition, the survey data were used to identify the subset of 26 schools for the in-depth interviews. Selection criteria required no less than five high schools that showed the highest levels of integration, and no less than five schools that showed the lowest levels of integration with respect to school improvement initiatives, staff development, and teacher evaluation processes.

Data Sources: For Likert scale items in the coded survey, frequencies were tallied and percentages calculated and reported. For all non-Likert scale items in the survey and the interview data, a qualitative methodology was used to analyze textual data to discover regularities or patterns that repeated across the data (Tesch, 1990). All data were analyzed for the purpose of identifying patterns in the ways that schools and districts responded to the CAPT.

For the open-ended responses in the survey, a qualitative methodology was used to analyze the textual data to discover regularities or patterns that repeated across the data (Tesch, 1990). Responses were also rank-ordered by ERG to determine whether they showed a pattern or a clustering of responses when grouped by the state's system of organizing districts by socioeconomic status. These patterns then were used to sort out the interview data in a process of constantly comparing content and defining properties or concepts until a "sense of the essence" (Glaser & Strauss, 1967) was reached.

Results: Results indicated that on a statewide basis, the CAPT sparked curriculum revision, instigated K-12 curriculum articulation, and forced staff development in holistic scoring and in the use of rubrics. The study also found that while the CAPT is not yet a meaningful benchmark assessment for all Connecticut students, teachers or parents, there are signs that administrators as well as teachers are beginning to include CAPT objectives in their annual goal setting processes. Finally, while the CAPT is not a driving force for the higher performing districts in Connecticut, it does serve as an elusive benchmark for the State's most needy communities.

Educational Importance of this Study: In general, the results of this study clearly showed that the CAPT has had an impact on educational reform in Connecticut, particularly in the areas of curriculum and assessment reform in Connecticut. The strongest effects have been in the area of aligning curriculum standards with the CAPT, and in the area of using CAPT-like assessments such as holistic scoring and rubrics. While these results are not surprising, since curriculum and assessment are well within the school/district's domain of control, it is important to note that the impact varied depending on ERGs. Not surprisingly, students in the higher performing districts responded well to these changes in curriculum standards and assessments and, for the most part, performed well on the CAPT, as they do on most high stakes assessments, such as SAT, ACT, NAEP. While initially the open-ended, performance based format of the CAPT presented some challenges, it did not take long for most high performing students statewide to score at or above goal on Connecticut's 10^{th} grade benchmark assessment. As a matter of fact, it appeared as if the attitude toward the CAPT in these districts was one of almost annoyance, because their students had to spend time preparing for the CAPT, when they should

be focusing on the SATs and their all-out effort to sell themselves to a highly competitive college.

The feedback was very different in the urban districts with the lower socio-economic profiles. Principals interviewed from these districts appeared to be genuinely concerned about trying to apply a "one size fits all" kind of assessment to their students who come from very different socio-economic backgrounds than their counterparts in the higher performing districts. Respondents did agree that the CAPT was serving as a catalyst to redesign curriculum and assessment to target those skills and competencies that Connecticut's urban high schoolers seem to be lacking. Many special reading and writing programs have been implemented; science and math programs that focus on problem solving have been adopted; before and after-school programs that focus on CAPT skills-building have become part of the regular menu of extracurricular activities. Further research is needed, however, to examine more closely how the CAPT has affected the schools in the lower performing ERGs in Connecticut, and whether this "one size fits all" assessment is truly equitable in a state with such extremes of wealth and poverty.

With respect to staff development, the results of this study did show that some meaningful strides have been made in linking staff development to school improvement initiatives. It did appear from the respondents in this study, that districts in Connecticut were beginning to appropriate more time for staff development as Darling-Hammond (1996) recommended. However, the results did show that more needs to be done in terms of the delivery systems that embed staff development into everyday teaching and learning in the classroom. This becomes not so much a knowledge issue but a paradigm shift from the drive-by CEU workshop to the conceptual understanding that all members of the professional learning community are

constant and continuing learners (Fullan, 2000, Senge, 2000). It demands what Quinn (1996) calls "deep change" which is a much more difficult process that requires new ways of thinking and behaving. It means that the real change has to happen from the inside out, at the core of the school in classroom instruction (Tyack and Cuban, 1995).

Finally, from an overall perspective, the results of this study indicated that teacher evaluation has been the least impacted in terms of integration with staff development and school improvement initiatives. Some of the respondents talked about how they tried to focus on CAPT initiatives in their classroom observations; others discussed how they had attempted to include efforts to improve CAPT scores in their teachers' goals and objective setting processes. But at the time of this study, there did not appear to be any formal structures in place to connect CAPT outcomes with teacher evaluation, staff development or school improvement initiatives. While a fully developed school improvement-planning process should really be a synthesis of individual teachers professional growth and improvement plans aligned with district/school goals focused on improving student achievement (Iwanicki, 1990), the accountability connection with respect to the CAPT appears to be elusive, if not non-existent. This is an area where more research is needed to determine if this is a paradigm problem, or if the overall intent is on keeping these constructs separate rather than integrating them and finding connections.

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AN EXPLORATION OF HOW SCHOOL DISTRICT LEADERS ARE RESPONDING TO THE CONNECTICUT ACADEMIC PERFORMANCE TEST (CAPT)

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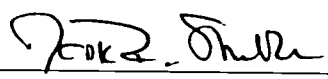
Associate Advisor 
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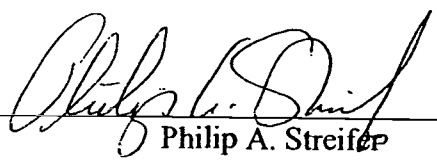
Associate Advisor 
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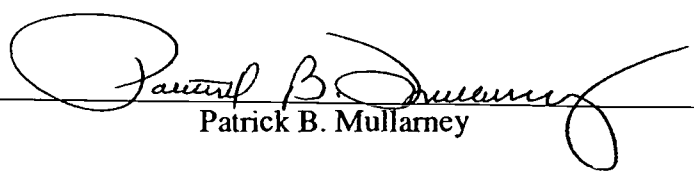
Associate Advisor 
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I truly believe that family defines the mosaic of who we are. I offer all my thanks, love and devotion to those who helped shape the person I am today. Without them I could never have completed this study.

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AN EXPLORATION OF HOW SCHOOL DISTRICT LEADERS ARE RESPONDING TO THE CONNECTICUT ACADEMIC PERFORMANCE TEST (CAPT)

Italia Ann-Terrone Negroni, Ph.D.

University of Connecticut, 2001

This study was focused on how school district leaders in Connecticut are translating educational reform policies into instructional practice. It explored how school improvement initiatives were being implemented to improve student performance on the Connecticut Academic Performance Test (CAPT). Furthermore, it examined in what ways, if any, these initiatives were integrated with staff development support and were reinforced through teacher evaluation processes. Finally, it documented what similarities or differences existed among schools with respect to implementation and integration of school improvement initiatives, staff development support and the teacher evaluation process when grouped by Connecticut's Educational Reference Groups (ERGs).

Principals in all 139 comprehensive public high schools in Connecticut were sent a coded survey with both closed and open-ended questions. In-depth interviews were conducted with a sub-sample of 26 high schools that showed the highest levels of integration and lowest levels of integration with respect to school improvement

initiatives, staff development, and teacher evaluation processes. For Likert scale items, frequencies were tallied and percentages calculated and reported. For all non-Likert scale items in the survey and the interview data, a qualitative methodology was used to analyze textual data to discover regularities or patterns that repeated across the data (Tesch, 1990). All data were analyzed for the purpose of identifying patterns in the ways that schools and districts responded to the CAPT.

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CHAPTER 1

INTRODUCTION

Throughout the 18th and 19th centuries, urbanization, industrialization and immigration transformed American Society along with its education system. As a result of these three major social and economic evolutionary changes, the "Little House on the Prairie" one-room schoolhouse was replaced by an educational system that promised not only to solve the human capital problems of the labor market, but also to exponentially increase the economic growth of the nation (Spring, 1994). Yet despite these very lofty national expectations, the administrative oversight for education remained rooted on the state and school district levels. Over the years at the national and state levels, these two roles of schools, as social agencies training future workers, and schools, as vehicles for gaining upward mobility, became contradictory and prone to political manipulation.

By the beginning of the 20th century, there were strong tensions between politicians and school officials with the American education system serving as a kind of political football used to carry both the problem and the solution to the country's economic as well as social ills (Spring, 1994). In an effort to protect themselves from the prowess of politics, school boards and school administrators promised "efficient, cost-effective school systems" (Spring, p. 280) and won support from the cost-conscious business community. But the economic tensions of the Depression split this alliance between educators and the business community. By the 1950s, the business community was joining with politicians to lay the blame on educators for allowing the American education system to become inferior to its international competitors.

This became particularly apparent after World War II, when public schools were increasingly linked to a number of national issues including the Civil Rights Movement, the War on Poverty and the Cold War. Teachers and schools were continually being blamed generally for making public schools academically weak, and specifically for not producing enough scientists and engineers to keep the United States technologically ahead of the Soviet Union. The controversy reached its climactic peak in October 1957 when the Soviet Union successfully launched Sputnik I. Public schools were targeted as the cause for the U.S. to be losing the technological and military Cold War.

Soon after, President Eisenhower inextricably linked education to national defense when he argued that the U.S. must meet the Soviet Union in not only military power, but also in the advancement of technology, research and education (Eisenhower, 1958). He proposed a number of measures to give the U.S. the competitive edge over the Soviet Union, including improving the teaching of mathematics and science, developing better testing, guidance and counseling programs, offering college teaching career fellowships, and expanding the teaching of foreign languages. During the 60s and 70s, the political climate shifted to blaming discrimination and poverty on the schools. By the time the Elementary and Secondary Education Act (ESEA) was signed in April 1965, the focus of educational policy officially moved from winning the scientific and technological Cold War with the Soviet Union to winning the War on Poverty and on school desegregation (Spring, 1994).

Some 20 years later, when A Nation At Risk was published in 1983 by the National Commission on Excellence in Education, American public schools were blamed once again, this time for the difficulties in competing with Japan and West Germany and

for the decline in technological development in the U.S. This commission's report implored the states to increase academic standards, to improve the quality of teachers, to reform curriculum, and to "...rededicate ourselves to the reform of the educational system for the benefit of all" (National Commission on Excellence in Education, 1983). This gave state governors an opportunity to jump on the education reform bandwagon to fulfill the now old promise of American education as the solution to the economic and social problems of the country.

A Nation At Risk set the stage for making education reform a top political priority for the recent two decades. In 1989, President Bush and 49 governors attended the first National Education Summit along with more than 40 business leaders from all over the country. This first bipartisan meeting of governors and business leaders is credited with reaching the historic agreement to set national education performance goals. The now famous National Education Goals 2000, that were eventually written into law with the 1994 Educate America Act, included the following:

- The creation of model schools
- The setting of national standards
- The development of voluntary achievement tests
- The formulation of incentives for parental choice
- The establishment of "...guidelines for what youngsters should know and be able to do to be citizens who can compete in the world economy" (National Education Goals 2000 Panel, 1991).

Since 1989, two more education summits, one in 1996 and another in 1999, have been held to underscore the bipartisan collaborative support for education reform. At the

1996 meeting, the governors and business leaders affirmed the need to march ahead with standards and assessments. But it was not until the 1999 summit that educators, including state officials, school board members, and superintendents, were invited to join the governors and business leaders in their discussions. This time the focus of the national education summit was about improving teacher quality, helping all students reach high standards, and strengthening accountability (Hoff, 1999; Holland, 1999; Lawton, 1996; Olson, 1999; Remembering 1989: The Year in Education, 1990).

Over the last ten years, a proliferation of national organizations, states, cities, and school communities across the country wrestled with the standards-assessment-accountability systemic education reform agenda that resoundingly echoed throughout the popular press as well as in the scholarly education literature. The National Council of Teachers of Mathematics (NCTM) is credited with being the first of many professional subject-matter associations to establish standards for everything we want children to know and be able to do at specific times in their school career. Now there are content standards, curriculum standards, performance standards and opportunity-to-learn standards in all kinds of formats from subject specific booklets to 500+ page compendiums in print, to CD-ROMs, and online databases. Moreover, standards are evaluated annually in the press (Education Week's Quality Counts) and by national organizations (American Federation of Teachers' Standards Matter).

All states, with the exception of Iowa, developed academic standards, with 40 states having them in all four core subject areas - reading/language arts, history/social studies, mathematics, and science (Bond, 1995; Center for Educational Reform, 1996; Council of Chief State School Officers, 1996; Gandal, 1996, 1997; Wolk, 1997). In

addition, 48 states moved to the next level by developing statewide assessments that measure educational progress aligned to these standards (Olsen, 1999; Glidden, 1998). Iowa school districts voluntarily set their own standards and administer the Iowa Test of Basic Skills (ITBS), a nationally recognized multiple choice test that is used extensively across the country by many schools and districts to measure student achievement.

As we move beyond the first election year of the 21st century, the education reform agenda continues to be a top national political priority with the focus moving from standards and assessments to accountability as measured by student achievement. Both former Vice President Gore and President Bush, as well as many other Congressional candidates, "stumped" on the education reform bandwagon during their 2000 election campaigns with accountability proposals for teacher evaluation that include rewards and penalties, for increased investment in teacher recruiting and training, and for expanded programs for school choice and competition (Robelen, 2000). It appears that Republicans and Democrats agree on using federal funding as the incentive for public schools, particularly failing schools, to improve. The belief seems to be that this political push for education reform can become the catalyst for systemic change across schools and districts in this country.

Although the research literature supports the notion that change cannot be mandated (Fullan, 1993), there is evidence that externally imposed policies, such as national standards and state-mandated assessments, can be used to jump-start educational reform (Darling-Hammond, 1985; Fullan, 1983; Miles, 1993; Sarason, 1992; Tucker & Codding 1997). But, education reform is not just a matter of changing national and state standards and assessments. The question becomes, can the everyday classroom-based

strategies of 2.6 million teachers in 100,000 schools in 16,000 districts across the country create and sustain the educational reform that the standards and assessment movement ostensibly promises? A more important twofold question is whether school district leaders can a) translate these national and state standards and assessments into school improvement initiatives focused on student achievement and b) reinforce the impact of staff development through meaningful and productive teacher evaluation practices that result in improved achievement for all students.

STATEMENT OF THE PROBLEM

Connecticut has always been a state at the forefront of the national education reform effort to promote high educational standards for student achievement. Unlike other states, Connecticut used a two-pronged approach that developed teaching competencies with the Connecticut Teaching Competencies Instrument (1984), and then created student assessments with the Connecticut Mastery Tests (CMTs) in 1985 and overall student outcomes with the Common Core of Learning (CCL) in 1987. To address teaching competencies for new teachers in Connecticut, the Beginning Educator Support and Training Program (BEST) was originally implemented in 1989 as a multi-year induction program of support and assessment.

Over the last 15 years, the Connecticut Mastery Tests (CMTs) for all 4th, 6th and 8th graders have gone through 2nd and 3rd generation revisions; the Common Core of Learning (CCL) was revised to include foundation skills as well as discipline-based competencies; and the K-12 Connecticut Framework: Curricular Goals and Standards (1998) for what students should know and be able to do in each subject area was developed and aligned with the mandated statewide Connecticut Mastery Tests (CMTs).

With respect to expectations for teacher competencies, Connecticut has a reputation for having "...the best prepared teachers in the nation (Darling-Hammond, 2000)." Over the last ten years, the Connecticut Teaching Competencies (CTC) instrument was replaced by the expanded Common Core of Teaching (CCT) that now delineates measurable and observable content and process teaching competencies as well as various aspects of professional teacher leadership (CCT, 1999). In addition, in 1992 veteran teachers were required to earn 90 hours of professional development every five

years in order to maintain their certification. In 1999, a number of specific professional development requirements were carefully crafted for certain certifications so that teachers would develop and update their teaching skills to meet the state's goals for student achievement. For example, a 15-hour professional development requirement in the teaching of reading was created for all elementary teachers to support the state's literacy goal. Other professional development requirements include training in technology and bilingual education.

But it is the Beginning Educator Support and Training Program (BEST), started in 1989 and updated in 1993 and 1999, that earned Connecticut the Darling-Hammond (2000) praises. Over the years, the program has evolved from one of observing and mentoring to a combination of requirements that focus on technical teaching skills as well as subject area knowledge and specialized pedagogy in the various discipline areas (Connecticut State Department of Connecticut, 1999). Within the first two to three years, the majority of new teachers are required to submit an extensive teaching portfolio with logs, videotapes, examples of student work and an analysis of the planned instruction and assessment. And finally, all candidates for certification in Connecticut are required to successfully complete the Praxis I-CBT (Computer Based Test) and the Praxis II subject knowledge tests.

It was not until 1993 that Connecticut moved into statewide high school assessments when it piloted the first Connecticut Academic Performance Test (CAPT) for all 10th grade students. This instrument is representative of the increasingly popular forms of assessment programs that ask students to demonstrate the complex skills of higher order thinking and independent learning. Literature from the Connecticut State

Department of Education indicates that it expects the CAPT "to help schools improve by using results to analyze local curriculum and instructional strategies" (Connecticut State Department of Education, 1993). In other words, the CAPT could be perceived as a top-down, state-mandated assessment to drive local school and/or district change or reform in Connecticut.

Initially, school district leaders in Connecticut were given little guidance with respect to this new high stakes test that purposely set the "goal" level at a point where only 1/3 of the students in Connecticut were expected to achieve it (Connecticut State Department of Education, 1993). Pre-testing workshops that were held throughout the state focused primarily on the administration and the scoring of the test, with very little, if any, emphasis on the kinds of school improvement initiatives or staff development activities that might be helpful in preparing students and teachers for the test.

Over the last six years, since the initial administration of the CAPT, the Connecticut State Department of Education aligned state standards to the CAPT, held statewide training sessions, and supported inter/intra district collaborative CAPT projects with grant funding. These initiatives helped teachers prepare students for this high stakes assessment. However, despite these efforts, there is little, if any, research on the kinds of strategies that are being implemented in Connecticut schools in response to the CAPT, and whether or not they are having any measured success.

The overriding problem is the fact that all 10^{th} graders throughout the state, regardless of their background and preparation, are expected to achieve at the same goal level on the CAPT. This becomes a particular challenge for Connecticut with its widely diverse population, portions of which come from homes with the highest per capita

income in the United States, while others live in three of the poorest cities in the nation (Wolk, 1997). Strategies that work for some students may not work for others.

While student scores rose statewide in four consecutive years of the test administration, only 15.3% of all test takers achieved the goal in all four sections of the test in 1999. Urban districts are particularly challenged to "close the gap" between minority and majority student achievement. Although some of the neediest communities improved at a faster rate, urban students are still performing well below the state goal level. With the advent of the Second Generation of the CAPT in the Spring of 2001, Connecticut's governor and the State Board of Education made improving urban schools a top priority, and committed themselves "to using these test results as a tool for change" (Connecticut State Department of Education News Release, November 3, 1999).

The problem to be addressed in this study is to examine how school district leaders in Connecticut are responding to the challenges of the CAPT. It will seek to identify what kinds of school improvement initiatives, staff development support, and teacher evaluation processes school district leaders are implementing to improve student achievement on the Connecticut Academic Performance Test (CAPT) since its first administration (Research Questions 1, 2, 3). It will examine in what ways, if any, school district leaders are integrating school improvement initiatives, staff development support and teacher evaluation processes for the purpose of improving student achievement as measured by the CAPT (Research Question 4, 5). Finally it will determine any patterns in implementation and integration of these CAPT-related school improvement initiatives, staff development support and teacher evaluation processes that may emerge when data

are disaggregated by Connecticut's Educational Reference Groups (ERGs) (Research Question 6).

REVIEW OF THE LITERATURE

As indicated in the introduction, education historically functioned as the panacea for eliminating crime, immorality and poverty, as the lever for economic prosperity, as the masthead for intellectual freedom, and as the savior for the sacred institution of family (Spring, 1994). Over the last century, the public education system took on an even more visible center stage with politicians and businessmen playing pivotal roles in the movement to cure all the social and economic ills with education reform. Figure 1 depicts the leveraging of education reform by politicians and businessmen to address the social and economic problems in our country.

These two forces, politics and business, pushed the education reform agenda through a series of evolutionary dimensions (see Figure 2) that included the thrust for national and state standards, the need for state mandated assessments to measure those standards, and the current acute level of awareness for accountability. As we entered into the final stages of the presidential election campaign 2000, the accountability dimension was moving toward a three-pronged agenda that focused on teacher quality, intensive professional development and improved teacher evaluation processes (Robelen, 2000).

Much is written about all of these aspects of school reform (Cawelti, 1993, 1997; Conley, 1993, 1995; Cuban, 1992; Darling-Hammond, 1992, 1996, 1997; Elmore, 1990, 1996; Fuhrman, 1995; Fullan, 1993; McNeil, 2000; Sarason, 1990, 1992; Schlechty, 1990; Senge, 2000). The literature on state and national standards and assessments is a mile wide and a fathom deep. Educational conference agendas are filled with presentations on the politics of standards and mandated testing. In the assessment arena, speakers are focusing on the standards-assessment connection with topics such as

Figure 1: Pivotal role placed on education reform by politicians and businessmen in curing socio-economics problems.

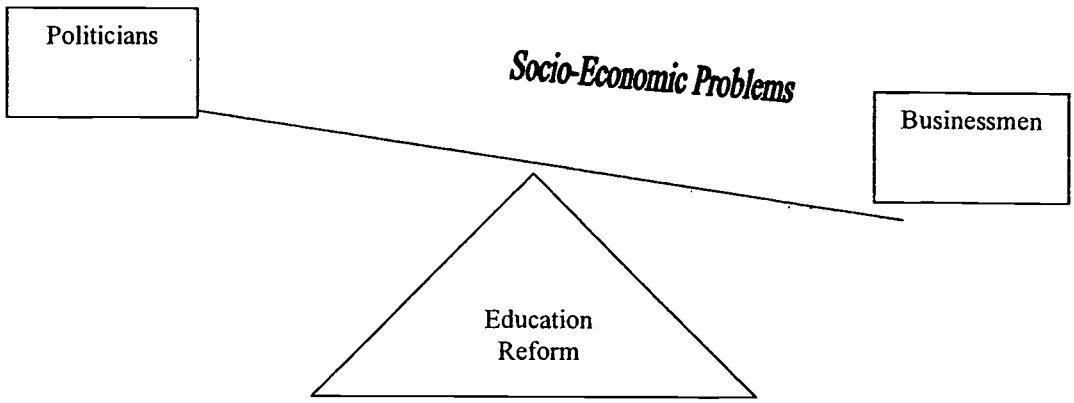
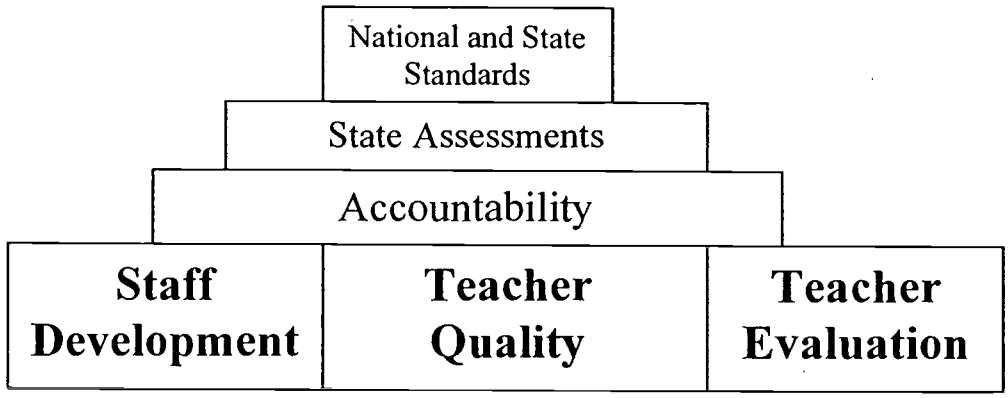


Figure 2: The Evolutionary Dimensions of School Reform



standards-based instruction and assessment; standards, assessment and the change process; standards and the practice of assessing student work samples, and operationalizing standards through assessment exemplars. Professional organizations, national teacher unions, foundations, and regional educational research labs annually review, evaluate and rate in report card style the state and national standards and assessments as they are constantly being written and revised. And thanks to the magic of

mass media, the debate over education reform is being played out in the press as well as on every car radio, in every family room television, and on every computer desktop.

This review of the literature will frame the discussion of education reform with the challenges of improving achievement for all students by:

1. Exploring how education reform is driving the national standards movement.
2. Discussing how the national standards movement is driving the development of statewide standards and assessments.
3. Exploring statewide assessment programs, with a particular emphasis on the socio-economic challenges and controversies surrounding the Connecticut Academic Performance Test (CAPT), and its ability to affect change in instructional practice that translates into improved student achievement.
4. Reviewing a number of school improvement initiatives to improve student achievement and the basis for which they were selected for this study including:
   - curriculum standards linked to state test objectives,
   - performance assessment tools
   - different forms of teaming teachers and students
   - various reconfigurations of the school year, day and/or schedule.
5. Exploring how staff development is being linked to school improvement initiatives, with a focus on Connecticut.
6. Exploring how teacher evaluation processes are being linked to student achievement, with a focus on Connecticut.
7. Explaining how an integrated approach can be used as a framework to study how school district leaders in Connecticut are integrating school improvement initiatives

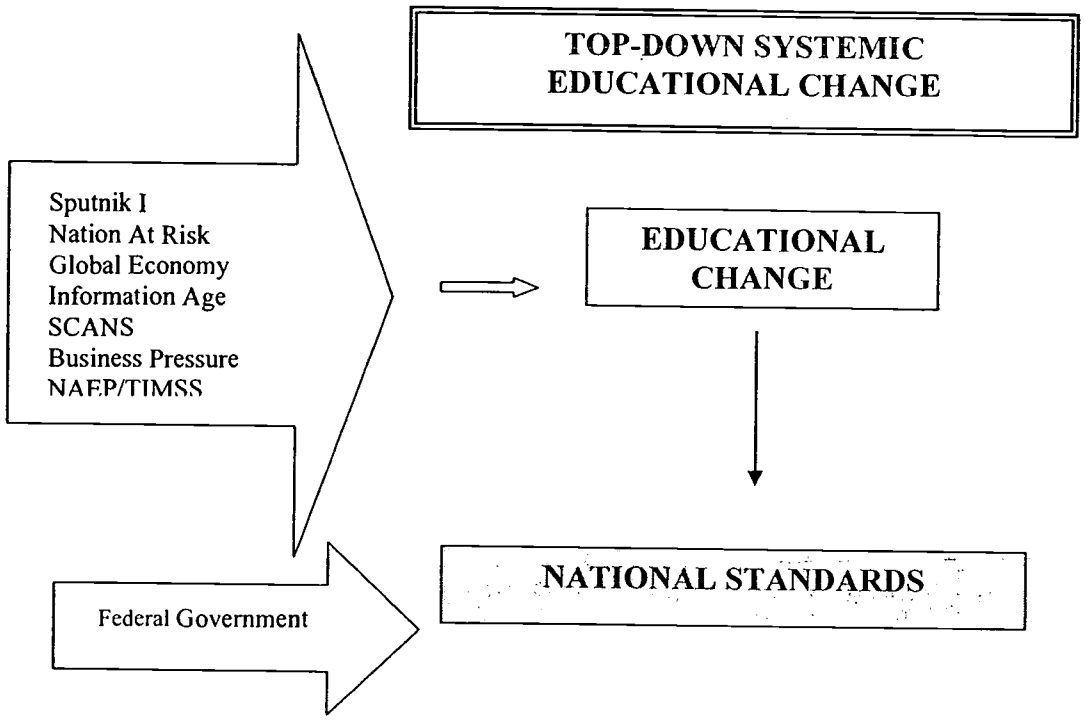
with staff development support and teacher evaluation processes in response to the CAPT.

Education Reform Driving National Standards: The societal shift from an industrial age to an information/technology age, combined with American students' comparatively poor performance on national and international measures spearheaded the current educational reform movement at the most basic levels of schooling (Cuban, 1990; Sarason, 1990). Scores on the National Assessment of Educational Progress (NAEP) indicated that "fewer than half the students tested can do challenging work at their grade level" (Olsen, 1997). The NAEP data are underscored by the recent Third International Mathematics and Science Study (TIMSS, 1996, 1997, 1998), a comprehensive research project that included videotapes, curriculum analyses, case studies and test data of over a half million students in five grade levels, from primary through secondary schools, in 40 different countries located all over the world. American students held their own in third grade; by 8th grade, U.S. students were only slightly above the average, and by the end of high school the United States students scored significantly lower than their counterparts. While there are some questions of comparability with respect to the high school age groups in different countries, the fact remains that U.S. students do fall behind their international comparable peers as they move through middle and high school (TIMSS, 1996, 1997, 1998). As a result, the national education reform movement is currently focused on improving the competitive performance of American students. Figure 3 depicts how, over the past 14 years, this push for educational change based on international and national pressures led to the national standards (Conley, 1993; Darling-Hammond, 1996; Elmore, 1996; Fullan 1993; Lieberman, 1995).

Any kind of reform movement requires financial support. The push for national standards as a vehicle for education reform is no exception. The successful Soviet launch of Sputnik I was the impetus for expanded federal aid to increase the numbers of teachers, particularly in math and science, in the hopes that the United States would quickly catch up to its international competitor (Ravitch, 1995; Spring, 1990, 1994). When A Nation at Risk (1983) blamed the schools for America's difficulties in competing in world markets with Japan and West Germany, federal financial support was given to states and local school communities to support increasing academic standards, to improve the quality of teachers, and to reform the public school curriculum in the United States. A number of rules and regulations that carried financial price tags were imposed including raising high school graduation standards, extending the school day and year, rewarding teachers through career ladders, and weeding out weak teachers by requiring state examinations (Spring, 1990, 1994; U.S. Department of Education, 1983).

On the federal level, the Hawkins-Stafford Amendments to the Elementary and Secondary Education Act (ESEA) (P.L. 100-297, 1988) supported the commitment to education reform by requiring states to use portions of their funding to initiate and expand school reform activities (Spring, 1990, 1994). In 1994, the U.S. Congress passed the Clinton administration's Goals 2000: Educate America Act that made the original six plus two more goals into law. It also established a federal grant program to help the states pursue and achieve school reform efforts (Holland, 1999).

Figure 3: Education Reform driving the National Standards Movement



While the Goals 2000 legislation only instigated reform efforts in some areas, it did raise the political concern for educational performance goals to a newly heightened level of national awareness. Moreover, with a more typical business approach to planning for continuous improvement with measurable outcomes, the Goals 2000 legislation expanded the financial power base for education to include federal and state as well as corporate and foundation support. Finally, most significantly, the Goals legislation ignited the national standards movement that inextricably linked outcomes in everyday classrooms to the international competitive health of this country.

Federal funding has also been forthcoming to support the development of a number of model schoolwide reform designs that could be emulated by other schools across the country (Mehlinger, 1995; Slavin, 1997). These comprehensive school reform models are supported by national networks, such as James Comer's School Development Program (1988); Henry Levin's Accelerated Schools (1987); Ted Sizer's Coalition of Essential Schools (1984); Robert Slavin's Success for All (1996) and Wings and Roots (1994); Carnegie Corporation's Middle Grade School State Policy Initiative, and the College Board's Equity 2000 Project (Slavin, 1997). Over the years, hundreds of schools secured federal funding to belong to these networks that focus on supporting school reform initiatives, with collaborative staff development to improve the quality of teaching and learning.

As a result of these national efforts to fund and support the national standards movement for education reform, students are staying in school longer, taking more tests and taking more academic courses. However, in spite of these efforts, SAT scores and performance on international tests show little change. Student achievement through 1996 on the National Assessment of Educational Progress (NAEP) indicates that, while students are demonstrating mastery of basic skills, few show the capacity for complex reasoning and problem solving (Ravitch, 1995; Raizen, 1997; Stedman, 1997; Wheelock, 1997).

Yet, these are the very skills that Peter Slavin, in his book, The End of Work (1995), says are crucial to be employable in the Information Age economy of the 21st century. These skills, which were judged to be most useful for the world of work, were defined by the Secretary of Labor's Commission on Achieving Necessary Skills

(SCANS) in its 1991 report, What Work Requires of Schools: A SCANS Report on America 2000 (1991). They consist of five competencies (resource management, interpersonal, information and technology skills, and systems thinking) based on a three-part foundation of basic skills, higher order thinking, and personal qualities of responsibility, self-esteem, sociability, self-management and integrity (U.S. Department of Labor, 1991). These are the very skills and competencies that the national education reform movement is attempting to address in its overall goal to improve achievement for all students. Most recently, the concern is for the 21st century learners, the "Millennial Generation", and the kind of impact they will make on society based on how well they do in school (Strauss & Howe, 1991;Vital Signs, 1999).

The professional education organizations joined the national standards movement when the National Council of Teachers of Mathematics (NCTM) drafted what students should learn in math in 1989. A number of other professional organizations followed suit, so that now content knowledge standards are available in all subject areas both online and in a 600-page compendium (Marzano, 1997). And while the various disciplines have had to contend with the challenges of consensus building, there is widespread agreement among individuals and organizations that national standards raise the quality of schooling for all students (Archbald, 1998; Darling-Hammond, 1996; Ravitch, 1995; Tucker, 1999).

In addition, a number of efforts were made on a national level to not only set national education standards but also to evaluate and benchmark them. In 1991, the National Center on Education and the Economy joined with the Learning Research and Development Center at the University of Pittsburgh to establish the New Standards Project. This group set world-class standards for student achievement and developed a

student performance assessment system that measures student progress against those standards. Then in 1994, Congress created the National Education Standards and Improvement Council (NESIC) to decide which state and national standards should be endorsed (Mehlinger, 1995). But when the Republicans took control of Congress later in the year, this council was eliminated. Finally at the 1996 Education Summit, a new organization, called "Achieve," was created to serve as a national clearinghouse on standards and assessment, helping states benchmark their standards, and providing technical assistance and public reporting (Education Update, 1997). Achieve is currently acting as the data gathering agency for the action plans being developed by each state as a result of commitments made during the 1999 National Education Summit. Just six months after the summit, 38 states already met the deadline for reporting on how they plan to make standards a reality in classrooms (Olsen, 2000).

Former President Clinton supported the education reform standards movement throughout his tenure. In 1997, his 10-point "Call to Action" included setting rigorous national standards reflecting what all students must know to succeed in the 21st century, and creating voluntary national tests of student achievement in reading for fourth graders and in math for eighth graders (Hoff, 1997). Although a number of states and larger school districts (Kentucky, Maryland, North Carolina, West Virginia, New York City, Chicago, Los Angeles, Atlanta, Broward County, Cincinnati, Detroit, Omaha, Philadelphia, Seattle, Fresno, Long Beach, Houston, San Antonio, El Paso) supported the proposed national testing legislation, it met with major opposition from Congress (Hoff, 1999). Undaunted by the lack of Congressional support for national tests and spurred on by American students' most recent less than average performance on the Third

International Mathematics and Science Study (TIMMS) (Raizen, 1997; Schmidt, 1996), President Clinton affirmed his support for education reform by requesting increases in most of the major K-12 education programs in his 1998 budget. Then in January 1999, in his budget proposal for the year 2000, the President recommended linking federal funding for education to student performance and accountability measures (Sack, 1999). Moreover, in his ESEA reauthorization proposal for the year 2000, Mr. Clinton focused his agenda on holding students to high standards and promoting high quality teaching through federal support for writing standards, for aligning curriculum, and for increasing professional development with annual report cards at state, district, and school levels as a requirement for funding (Hoff, 1999).

While the national standards movement did not produce President Clinton's national exams as a national measure of educational progress, it did spearhead the states' efforts to create their own standards and to begin to develop state assessments aligned with them (Darling-Hammond & Falk, 1997; Hill & Crevola, 1999; Tucker & Codding, 1998). Moreover, it did set the stage at the national level for the need to focus federal funding on setting state standards, aligning state standards with assessments, supporting school improvement reform initiatives, emphasizing teacher capacity building through professional development, and devising the means and measures for accountability through teacher evaluation processes.

National Standards Driving Statewide Standards and Assessments: Thus, Figure 4 shows how the push for national standards created the top-down pressure that moved the education reform agenda to the state level (Conley, 1993; Darling-Hammond, 1996; Elmore, 1996; Fullan, 1993; Lieberman, 1995). States voluntarily used national

standards, as starting points for setting what students should know and how well they should demonstrate what they learn. All but one of the 50 states (Iowa) developed their own standards, and countless districts and schools are doing the same (Council of Chief State School Officers, 1996; Wolk, 1997; Gandal, 1996; Quality Counts, 2000). Forty-four states now have standards in all four core subject areas. While Iowa held firm to not adopting statewide standards, some state pressure is being exerted there on improving teacher quality in the form of prospective teacher testing, mentoring, and support for national certification (Coles, 2000). Although there have been debates over vague language and insufficient grounding in subject matter, over two-thirds of the states are now in the process of revising their standards and adding new ones in English, social studies, math and science.

With this wider recognition of academic standards on both the national and state levels, the question becomes how we measure progress toward standards. Forty-seven states are well into the next step, that is, developing the assessments that align with their standards to ensure that they are consistently being applied and measured throughout the schools and districts (Council of Chief State School Officers, 1996; Gandal, 1996; Olsen, 1999; Wolk, 1997). Even among educators, there appears to be agreement that, not only are standards important, but assessments are also needed to measure progress toward them. In an American Federation of Teachers' survey of 1200 education leaders, 96% agreed that effective public education must be built around rigorous content standards that describe what students should learn in language arts, mathematics, science and history. In addition, 89% agreed that states should set performance tests that indicate

whether a student has attained advanced, proficient or inadequate mastery of the standards (Gandal, 1996).

While progress with respect to state-mandated standards and assessments is being made, the impact at the school and classroom level is uneven at best. In many cases, it appears that teachers are not prepared to teach toward these new standards and assessments, and only a few states are ready to hold teachers, schools and/or students accountable for them. Some states are attempting to push for accountability with incentives in the form of rewards and sanctions (see Table 1). But these efforts appear to be primarily focused on schools and their performance, rather than on classrooms and the ability of teachers to improve student achievement as measured by standards and assessments (Bond, 1995; Council of Chief State School Officers, 1996; Gandal, 1996, 1997; Olsen, 1999, Wolk, 1997).

Thus, while state mandated standards and assessments appear to be entrenched in the education landscape, systemic efforts at accountability are either inconsistent or do not exist. The issue becomes convincing teachers to not only accept standards and assessment as important, but also to be open to modifying and adjusting their strategies and activities so that more of their students can achieve at the designated levels.

With so much attention fixed on making education reform happen, states are taking a long and hard look at what kinds of additional external pressures they can impose to effect school change at the classroom level. Phillip Schlechty, President of the Center for Leadership and School Reform, believes that the states' role is "to provide a context that encourages reform at the local district level" (Schlechty, 1990). President Clinton agreed when he stressed that his national crusade for education standards and

Figure 4: Education Reform driving the National Standards Movement, in turn driving statewide standards and assessments.

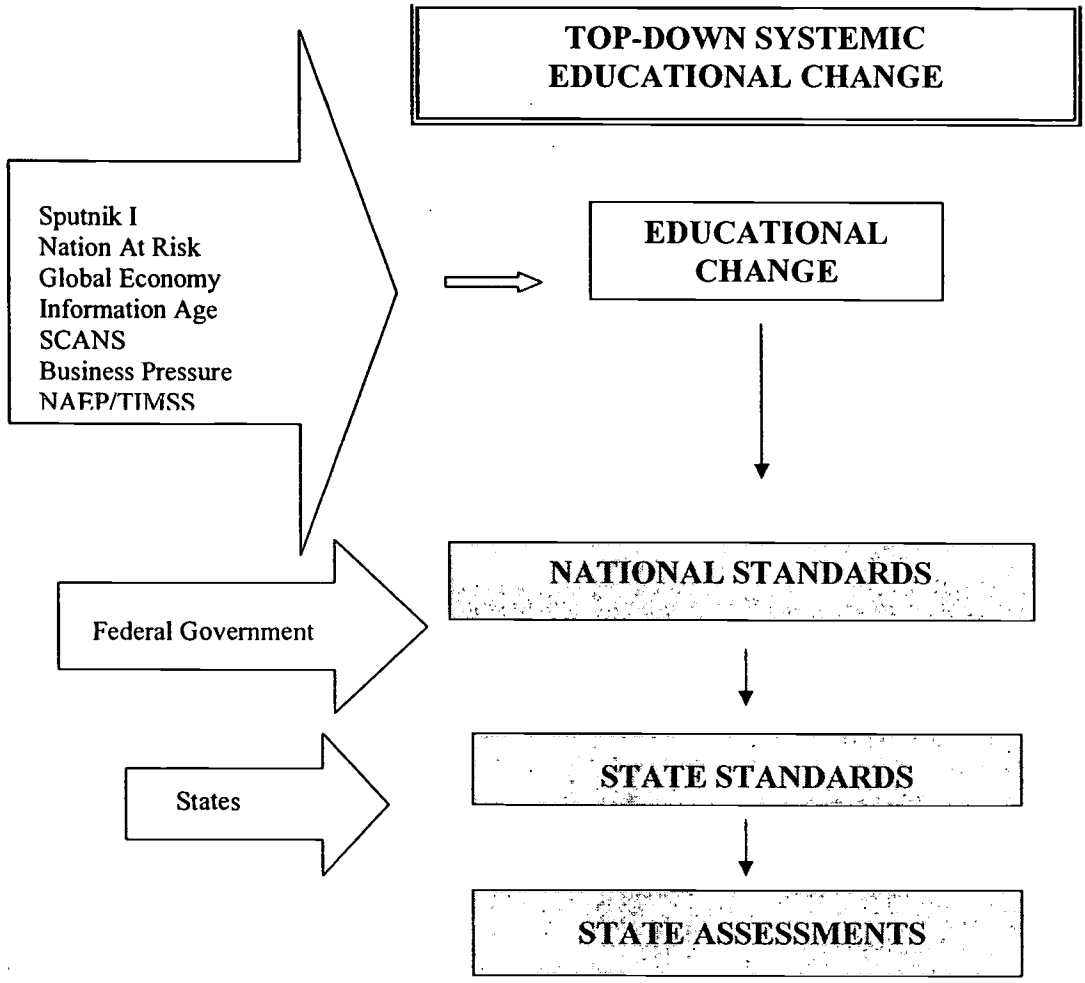


Table 1: Number of states offering rewards and sanctions as of 1999 (Olsen, 1999).

36 States	Publish annual report cards on individual schools
19 States	Rate the performance of all schools or identify low-performing ones
16 States	Have the power to close, takeover or overhaul failing schools
14 States	Provide monetary rewards to individual schools
19 States	Require students to pass state tests aligned with standards to graduate
2 States	Attempt to tie evaluation of individual teachers to student performance aligned with standards

assessments would give the power to the state or local school districts to set their own education goals (Hoff, 1997; Sack, 1999). While much has been written about how this type of top-down reform cannot be mandated, there is a strong body of literature that suggests these kinds of top-down pressures can be used as catalysts to jumpstart change at the more fundamental levels of schooling (Barth, 1992; Darling-Hammond, 1997; Deming, 1986; Fullan, 1991, 1993; Fullan & Miles, 1992; Lieberman, 1995; Senge, 1994; Shields, 1995). It seems that the states are not only committed to establishing common academic standards for students as a first step toward improving schools, but are also determined to do what it takes to align statewide assessments with standards as well as to explore options for structured accountability systems.

Statewide Assessment Programs: Although there are educators and members of the public who do not view statewide assessment programs positively, they are becoming a fact of life in most of the states. In 1997, there were only five states that either did not have statewide testing programs or were developing them. By the beginning of 1999, of those five:

- Nebraska's statewide assessments were emerging.
- Wyoming's were being finalized for Spring 1999.
- Massachusetts debuted their statewide assessments in 1998.
- Colorado districts were being held accountable for ensuring that state standards were being met over a six year period.
- Iowa districts were voluntarily administering the Iowa Test of Basic Skills (ITBS) that in effect serves as a statewide benchmark for what Iowa students need to know and be able to do (Coles, 1999; Keller, 1999; Miller, 1999; Walsh, 1999).

Most states are no longer in the early stages of the assessment process, and are into the next realm of making the connection between standards and assessment (Bond, 1995; Wolk, 1997; Council of Chief State School Officers, 1996; American Federation of Teachers, 1996; Quality Counts, 1999).

In the process of aligning assessments to standards, many states are finding that the norm-referenced standardized tests that they relied on in the past, are inadequate measures of the complex and varied educational outcomes that are being demanded by the new national and state standards. As a result, 34 states went beyond the traditional multiple-choice test to using more performance-based questions. Currently, the most common pattern in state testing includes a combination of three types of assessment: traditional, nontraditional or alternative, and writing samples (Bond, 1995; Olsen, 1999, Wolk, 1997).

The non-traditional or alternative types fall under the umbrella of performance assessment, a term used for various measures that test student capacity to use and apply knowledge and skills to solve authentic problems that parallel real-world situations (Hibbard & Yakimowski, 1997; Marzano, 1996; Hibbard, 1997; McTighe, 1996; Stiggens, 1995; Wiggins, 1993). These include such methods as essay writing, group science experiments, and portfolio writing. The state of Vermont is probably the furthest along with its pioneering portfolio-assessment system that started in 1990, and requires every participating school in the state to submit a selection of work in writing and mathematics for each 4th and 8th grader (Sack, 1999; Wolk, 1997). In other states, efforts are made to more realistically mirror the time sensitive process of editing and revising by giving the writing test over three or four days (White, 1999, Wiggins, 1993).

Other efforts to match the real-world connections among subject areas include the interdisciplinary tasks in both the Maryland and Connecticut tests. These statewide tests provide the reference materials and give the students the opportunity to discuss their topics in groups before they start to write their essays (Lewis, 1997; Wiggins, 1993; Wolk, 1997). Colorado is working on comprehensive state testing assessments in the hopes that districts will scrap their own testing programs. These will include a combination of short answers and performance-based assessments to be reported along with district assessments, student portfolios, external tests and classroom exams (Lewis, 1997; Walsh, 1999). Even statewide assessment pioneer states like California and Illinois are redesigning their testing systems to include more open-ended, essay-type questions aligned with their state standards (Johnston, 1999; Kirst, 1996; Sandhaven, 1999; Wolk, 1997).

But performance assessment does not come without its challenges. There are a number of issues centered around cost and time constraints as well as scoring, training, validity and reliability. With respect to time constraints, results are reported months after the tests are given. Educators believe that if assessments are to effectively impact student achievement, results need to be made available much sooner so that instruction can be adjusted. In addition, performance tests require a sizeable financial investment to train individuals in standardized scoring and inter-rater reliability. In Connecticut, for example, the tests are sent to Houston, Texas, to be scored by a professionally trained group of scorers. While there may be instructional advantages to having teachers do the scoring, the time and cost to prepare them for the task each year does not make it feasible (Tucker, 1999; Wise, 1996). Other concerns surrounding performance assessment include

technical issues of reliability (consistency in scoring across scores, from school to school and from state to state); validity (whether they truly reflect higher order thinking); inability of districts to match the assessment requirements with the necessary staff development; and the right wing backlash against nontraditional testing (Bond & Roeber, 1995; Caudell, 1996; Neill, 1996; Olson, 1995; Viadero, 1995; Worthen, 1993).

In spite of these issues, there is strong support for the emerging forms of performance assessment that appear to better reflect what students know and are able to do. Although students initially do not perform well on these tests, as teachers become familiar with the format, and learn to adjust their teaching to these newer types of measures, student achievement improves over time. The following are some examples:

- In Maryland, after five years of administering the Maryland School Performance Assessment Program, teachers are becoming more familiar with the test and most of the districts are improving each year.
- In Oregon, where one of the most ambitious school reform plans started in 1991, students have shown steady growth in reading and writing over the last six years.
- After Kentucky revised its reading standards and specified what teachers should do in the classroom, two-thirds of the schools showed gains in their scores.
- And in Colorado, where tests require students to justify and explain their reasoning in writing, test scores have shown steady improvement across the board in math, reading, and writing for poor Hispanic students, as well as for middle class white students (Conley, 1995; Manzo, 1999;Wolk, 1997).

The question then becomes, how well do students in the states that focused on standards and assessment reform compare against an external measure of student

achievement? The latest 1998 National Assessment of Educational Progress (NAEP) results, which measure more in the area of comprehension and application, indicate that Colorado, Connecticut, Kentucky, Maryland, and Texas, all of which heavily invested their reform agenda on statewide standards and assessment, had the largest gains since 1992 (Hoff & Manzo, 1999). These results, then, would underscore Elmore's (1996) suggestion that state policies that legislate and regulate statewide standards and assessment programs not only improve student achievement on statewide measures, but also have an impact on external measures as well, such as the NAEP (Cohen, 1992; Darling-Hammond & Wise, 1985; Darling-Hammond & Falk, 1997; Smith, 1991).

Statewide Assessment in Connecticut: When it comes to raising standards and matching assessments, Connecticut has been at the forefront of the school reform movement. When the State Board of Education adopted seven major education improvement initiatives in 1984, two of them focused on standards and assessment. In 1987 the Connecticut State Board of Education released the Common Core of Learning. This document, revised in 1998, describes what students should know and be able to do as a result of their K-12 education (Greig, 1994). With respect to assessment, the nationally recognized Connecticut Mastery Tests are in their third revision, and the six-year-old Connecticut Academic Performance Test (CAPT), which is the focus of this study, was revised for the May 2001 test administration.

With the piloting of the CAPT in 1993, Connecticut embarked on the journey to translate standards and assessment into improved student achievement for all of its 10th grade high school students. At the outset, the Connecticut State Department of Education did not have high expectations for CAPT results, but did anticipate that "performance

would improve each year as students, teachers and administrators adjust to the new expectations through changes in instructional practice" (Connecticut State Department of Education, 1993). Even though the State's intent was to "spark educational change" (N. Wise, personal communication, December 10, 1996), the how-to aspects of the legislation were ambiguous particularly in the first few years of the test administration. No special curriculum was given to follow, and no special resources were suggested to prepare students for the test.

At that time, the primary purpose of the CAPT was documented to be to foster improved instructional practices in the classroom by:

- Setting high performance standards on a comprehensive range of important skills and knowledge for all students;
- Emphasizing the application and integration of skills and knowledge in realistic contexts;
- Promoting better instruction and curriculum by providing timely assessment data regarding students' strengths and weaknesses;
- Providing an expanded measure of accountability for all levels of Connecticut's education system up to and including high school (State Department of Education, 1994).

But the most important overriding purpose is primarily to help schools improve by using the results to analyze local curriculum and instructional strategies and to monitor the strength of Connecticut's educational system (Sergi, 1994).

With any attempts to adequately measure student performance, comes a number of controversies. The CAPT is no exception.

- Teachers and administrators are questioning the reliability and validity of these tests.
- School boards are demanding better results, particularly in urban districts.
- Parents are not convinced that the CAPT is relevant, especially since SAT scores still appear to be the only meaningful testing mechanism for college applications.
- The business community has not endorsed the test by making it an entry level job requirement.
- Colleges and universities in Connecticut, or elsewhere for that matter, have not recognized the test with respect to entrance requirements.
- The State of Connecticut has not yet made the CAPT a requirement for graduation.

Moreover, when the CAPT was first released, school district leaders were left on their own to determine what kinds of school improvement initiatives, staff development support and teacher evaluation processes to develop and sustain in an effort to improve student achievement on the CAPT. Eventually, three years into the administration of the CAPT, the state standards were revised in each subject area to align with the test. While these standards are now in place and aligned with the CAPT, the more overriding issue for Connecticut, and for other states with such disparate socio-economic population extremes, is that all students, regardless of their preparation and background, are held to the same high stakes standard. This makes it especially difficult in a state like Connecticut with the highest per capita income in the country and three of the poorest cities in the nation. While some believe a "one size fits all" solution is not the answer, others are convinced that the only way to raise achievement is by raising the level of expectations for all high school students in Connecticut.

Prior to the CAPT, 95% of ninth graders met the standards on Connecticut's traditional statewide proficiency test. With the introduction of the CAPT, not only was performance assessment format added, but also the remedial and interventions standards were phased out and the "state goal" and "excellence categories" were added (Hibbard & Yakimowski, 1997). Initially schools showed small gains on these new testing formats, but more recently scores are increasing regularly from 44.6% reaching the state goal in 1993 to 54.4% in 1998. And while urban districts are showing "faster than average advances" (Sergi, 1999), there are still large percentages of students in the below goal and far below goal range.

Attempts are made to level the playing field by reporting test results by educational reference groups that classify districts with comparable socioeconomic status and other indicators of need (Connecticut State Department of Education, 1996). But the result is an even more heightened sense of competition across the state regardless of how well, or poorly, students achieve on the CAPT. After one pilot year and five formal years of administering the test, the CAPT results are considered the annual report card for secondary students, as well as high schools and districts in Connecticut.

This raises a number of questions: Do educational leaders in the various districts respond to the CAPT in similar ways? Do educational leaders in the poorest cities implement school improvement initiatives, staff development support, and teacher evaluation processes in ways similar to, or different from, those communities with the highest per capita income? Moreover, with such pressure being leveled at raising CAPT scores, it becomes necessary to begin to establish a body of research to which school district leaders can refer when attempting to improve student achievement on the CAPT.

The notion, then, as depicted in Figure 5, is that the top-down national standards can be used to push state standards and assessments, which in turn can be used as incentives to instigate changes in instructional practice at the school/district/classroom level; and that this combined three-pronged, top-down thrust can jump start or push for the bottom-up systemic educational change that is needed to have a long range effect on student achievement (Darling-Hammond, 1995; Darling-Hammond & Wise 1985; Fullan, 1993; Miles, 1993; Sarason, 1992). However, standards and assessment alone will not produce higher student achievement; rather they could be considered, as Figure 6 indicates, the "slices of bread that hold the sandwich of educational reform together while the meat of the sandwich is the delivery system (Wolk,1997)." That "delivery system", as depicted in the oval in the middle of Figure 6, consists of the following more challenging issues:

1. Identifying the school improvement initiatives that insure that these standards and assessments have a solid foundation on which to grow and thrive;
2. Providing the staff development support for teachers to learn how to teach to these standards;
3. Building the teacher evaluation processes that will hold students and staff responsible for meeting these standards.

School Improvement Initiatives to Improve Student Achievement (Research Question #1): Although the standards and assessment movement seems to be entrenched at the federal and state level, how it is really impacting instructional practice on the district and school level is another question. What exactly are districts and schools doing in their everyday classrooms to raise student achievement on these national and state standards and assessment programs, and which of these school improvement initiatives

Figure 5: Education Reform driving the National Standards Movement, in turn driving statewide standards and assessments, in turn driving school district/ classroom changes.

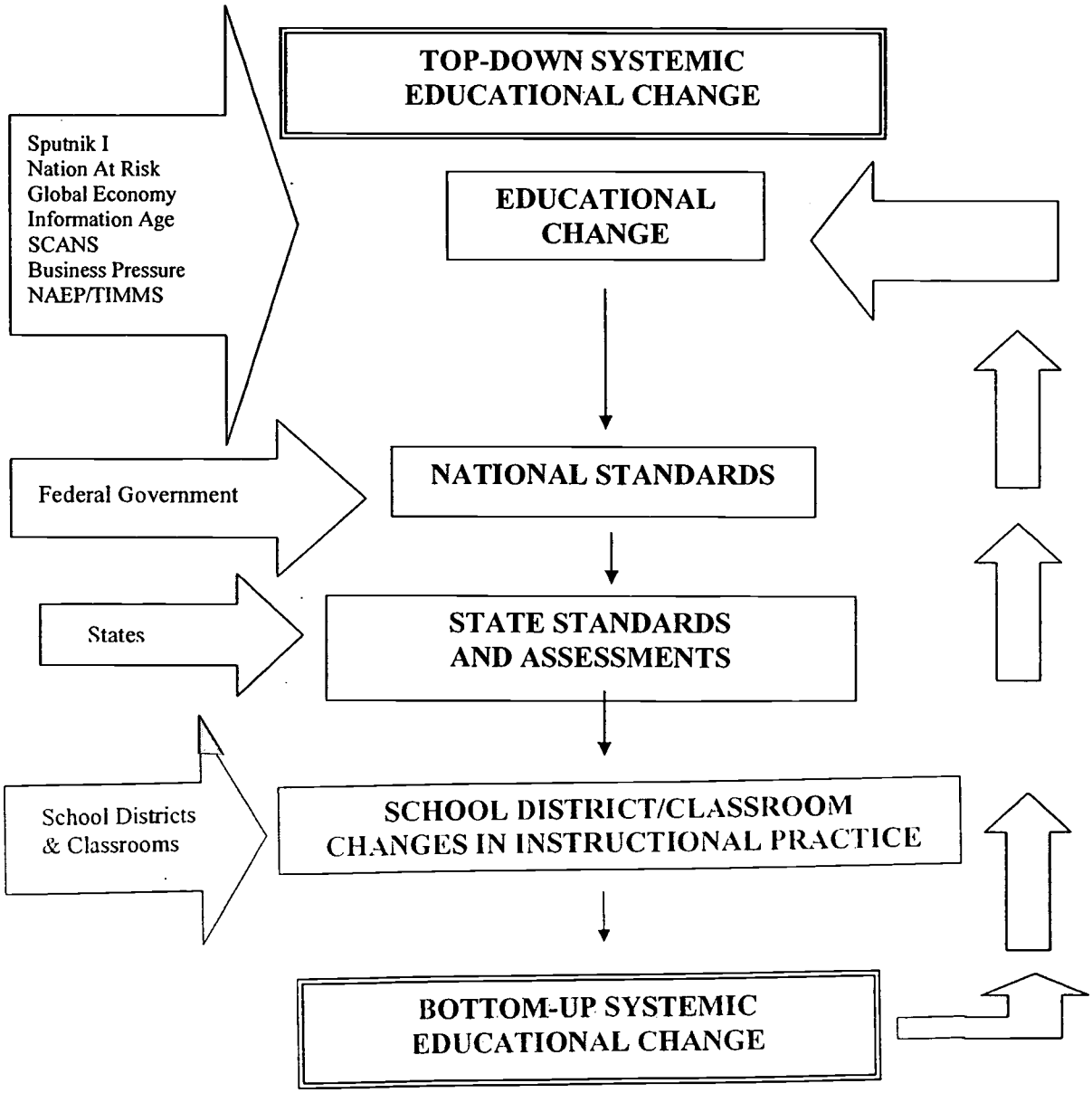
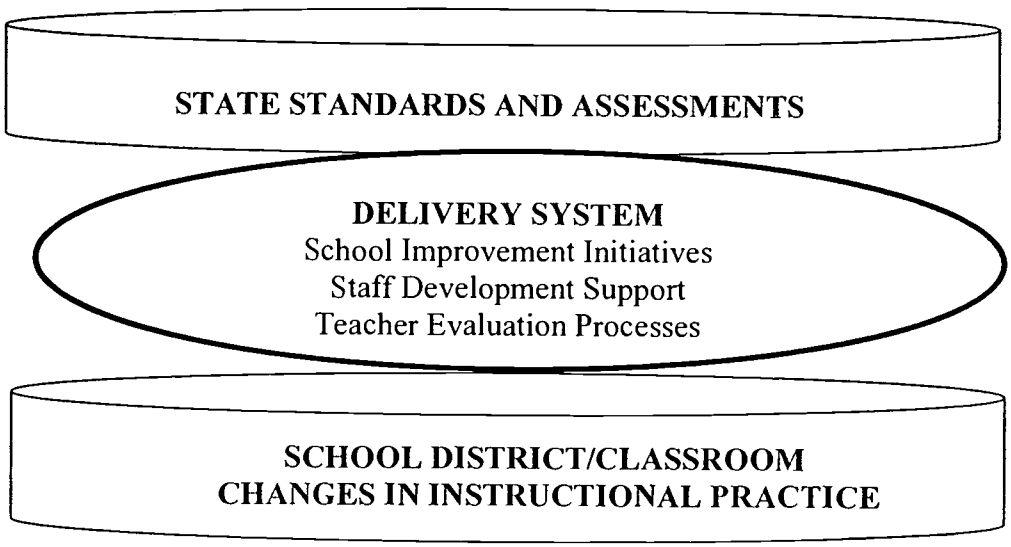


Figure 6: The "sandwich of educational reform" (Wolk, 1997) with school improvement initiatives, staff development support and teacher evaluation processes as the delivery system.



can effectively impact student achievement? Districts and schools need to determine which school improvement initiatives to implement in order to align instruction with state and national standards and assessments, so that they have an impact on instructional practice and student achievement. While the number of school improvement initiatives and/or strategies are too numerous to count, the literature does distill and focus on those efforts that are comprehensive and show evidence of having the potential to improve achievement for all students (Cawelti, 1993; Conley, 1993; Fashola & Slavin, 1998; Herman & Stringfield, 1997; Lee, 1994; Obey & Porter, 1997; Previdi, 1993; Quellmalz, 1995; Smith, 1994; U.S. Department of Education, 1998). In a meta-analysis of six studies on school reform (Cawelti, 1993; Conley, 1995; Lee & Smith, 1995; Prividi, 1993; Smith, 1994; Snyder, 1994), the predominant school improvement initiatives that

emerged focused on 1) linking curriculum with standards and assessment, 2) using performance assessment tools, 3) teaming teachers and students, and 4) reconfiguring school time (Negroni, 1996). Additionally, in a preliminary survey for this study, Negroni (1996) found that these same four school improvement initiatives dominated the school improvement initiatives list in Connecticut high schools. Each of these four school improvement initiatives were also included in the U.S. Department of Education national survey of school principals on the Status of Education Reform in Public Elementary and Secondary Schools (1998) as strategies for ensuring comprehensive, systemic reform in communities, local education associations, and schools. Moreover, all of them come under the restructuring/reform umbrella that Elmore (1990) and Newman (1992) describe as attempts to move a school away from traditional practices toward specific organizational and classroom practices that have the potential of improving student achievement.

Linking curriculum standards to state test objectives is one of the major school improvement initiatives cited in the effective schools research (Byrnes, Cornesky & Byrnes, 1992; Glaser, 1989, 1992; Lezotte, 1992; Schmoker & Wilson, 1993). Aligning curriculum (what is taught) with standards (what is intended to be taught) and assessment (what is tested) makes for a more coherent, useful instructional program that takes the guesswork out of what students should know and are expected to be able to do (Lezotte,1990, 1992). In addition, Cawelti's national high school study (1994) confirms that linking curriculum and standards is a focal point of school improvement initiatives aimed at improving student achievement.

While a limited number of schools reported progress using standards for this purpose in 1994 (Cawelti, 1994), a 1996 stratified sample survey of 1360 principals indicated that 78% of the schools surveyed were using content standards to guide curriculum and instruction in all four core subjects: 90% in reading/language arts, 81% in history/social studies, 92% in mathematics, and 84% in science (U.S. Department of Education, 1998). In the same survey, 76% of the principals reported matching assessments to standards and 79% reported using assessments for school accountability. It appears, then, that more schools and districts are taking their lead from the state and national standards movement to link standards and assessment with curriculum for the purpose of establishing more challenging expectations for student achievement and performance.

Using performance assessment tools was another focal element in Calwelti's study (1994). While traditionally, states relied on multiple choice tests, they have been criticized for not adequately measuring complex thinking and problem solving. More states now balance multiple choice questions with open-ended formats and include some performance questions in their statewide testing programs in most subject areas at various grade levels. As more and more states incorporate combinations of traditional and alternative assessments into their testing programs (Bond & Roeber, 1995), schools and districts face the challenge of designing school assessments that prepare students to perform well on these statewide measures. There is a body of research that supports the view that performance assessment as a reform initiative can change instruction because it encourages teachers to emphasize problem solving, communications skills and writing (Gandal, 1997; Roeber, 1996; Stiggins, 1997; Wiggins, 1993). Studies in Vermont,

Kentucky, and North Carolina confirmed that using performance assessments impacts classroom instruction with respect to encouraging more group work, more writing and greater use of manipulatives (Manzo, 1999; Sack, 1999; White, 1999).

However, Darling-Hammond (1996) calls these forms of assessment "troublesome" because they require extensive staff training that does not just happen magically with the usual one-shot, drive-by staff development session. Teachers need to spend extended periods of time together developing and coming to consensus on expectations for student achievement. For example, in 1992 the Pittsburgh Public School District began using portfolios to report student performance in writing. Over a two-week period, 25 teachers and support staff members spent 815 person hours developing rubrics and scoring 1,250 writing portfolios (Hargreaves, 1997). Looking closely and deeply at student work to determine what evidence constitutes quality work, and reflecting on what outcomes are desirable, serves as continuous feedback that can be used to further refine and revise performance assessments.

While the debate over the merits of performance assessment continues, its place within the context of school reform has been validated in the literature as reported in the ASCD Handbook for Student Performance Assessment in an Era of Restructuring (Arter, Blum, Conley, Cotton, Costa & Kallick, Hibbard & Yakimowski, Marzano, McTighe & Wiggins 1996). In this compendium of papers and studies from different authors representing the best thinking on this topic, it appears that, while creating high quality performance assessments is difficult, the process for developing them seems to be entrenched in the whole schema of the standards and assessments reform movement.

Teaming teachers and students is considered one of the most important school improvement initiatives that can empower changes in instructional practice to grow and take root (Darling-Hammond, 1996; Oakes, 1985). Clustering students and teachers in various configurations, such as interdisciplinary, grade level or cross graded teams, advisor-advisee programs, academies, schools within schools, and student learning teams or "houses" enables teachers and administrators to concentrate their efforts on helping smaller groups of students meet challenging high standards for the purpose of increasing achievement results. All of these models are structured to create the personalization that Sizer believes "is the single most important factor that keeps kids in schools (1992)" and that Darling-Hammond (1992) cites as a key factor in raising student achievement.

All of the 17 national comprehensive school improvement design programs include some sort of structural reorganization that not only reduces the size of instructional groups, but also allows for more teacher teaming to work on curriculum design issues (Bodilly, 1996). In addition, one of the key features observed in the 32 effective schools that were studied for their successful reform strategies was the variety of alternative configurations of students and teachers (Quellmalz et. al., 1995).

While the culture of school tends to separate adults from students, using various structures to organize teachers and students into smaller groups not only creates a climate for intellectual development, but also personalizes the atmosphere for developing quality relationships (Carnegie Council for Adolescent Development, 1989; Donahoe, 1993; Gregory & Smith, 1987; Sizer, 1984; Wynne & Walberg, 1994). This very strong feature of teaming for the purpose of counseling is one of the key components of the 12 Blue Ribbon schools that have been selected for their exemplary leadership, curriculum, and

instruction by the United States Department of Education. Each of these schools has some form of organizational structure, such as advisory periods, guidance time, crisis teams, student assistant groups and mentoring, that provide a strong support system for students (Horenstein, 1993). The belief is that these smaller teams of teachers and students create a more stable and secure environment in which all students can achieve academic as well as emotional/social success (Cawelti, 1997; Conley, 1995; Council of Chief State School Officers, 1998; Sizer, 1992).

Reconfiguring school time is the perennial school improvement initiative that attempts to answer to the constant and consistent struggle for more time to train, to collaborate, to develop staff, to counsel, to enrich, to remediate, to restructure and to reform. Sommerfeld (1993) phrased it so aptly when he talked about the real enemy being the hours and the way in which they are configured into a school day. In the 60s and 70s, when major attempts were made to break away from the 45-minute lockstep schedule, only 15% of American high schools were utilizing a more flexible modular schedule (Goldman, 1983). However, in the last five to six years, changing the way schools organize time has become a major school improvement initiative in some parts of the country. In 1995, 33% of the high schools moved to some sort of block scheduling, and about 50% of the high schools in the United States were considering some form of scheduling change as a school improvement initiatives for the next school year (Canady, 1993; McCoy, 1998; Lister, 1997; North Carolina Pisapia, Westfall & Lynn, 1997; State Department of Education, 1994).

Certainly a longer school day and/or year allows for more time on task. Adding days to the school year and adding hours to the school day are now familiar teacher

contract negotiations issues. In addition, efforts to extend the time and place of learning in the form of summer school, Saturday academies, and evening homework clubs are being organized throughout the country in an effort to improve student achievement.

Although the research so far indicates that the time factor neither hinders nor helps with state test scores, there are many important instructional variables that should be examined in conjunction with reconfiguring school time, including teacher enthusiasm, instructional style, training, supportive leadership and parent involvement (Sergiovanni, 1995). Fullan and Stiegelbauer (1991) warn that changing the time spent in class, as an isolated reform, is not enough, but needs to be combined with staff development opportunities to learn how to first "survive" and then "thrive" with the extended time (Canady & Rettig, 1996). Research notwithstanding, 53% of the principals surveyed by the Department of Education on the Status of Education Reform (1998) indicated they are restructuring the school day as a strategy to support comprehensive reform. With all the criticism leveled at schools about fragmented instruction, impersonal environment, discipline issues, and the reliance on the Carnegie Unit, it would appear that reconfiguring learning time is a school improvement initiative worthy of continued study.

Whether reconfiguring time, or teaming teachers and students, or using performance assessment tools, or linking curriculum to standards and assessments, are in and of themselves effective school improvement initiatives remains to be proven. However, while Lee and Smith (1994) do make the point that there is no consensus on which initiatives are most likely to have a positive effect on student achievement, the research literature indicates that change initiatives need synergistic supports and structures to be successful (Cawelti, 1997; Elmore, 1995). Thus, linking curriculum to

standards and assessment, using performance assessment tools, teaming teachers and students, and reconfiguring school time appear to be comprehensive school improvement initiatives that could have a potential impact on the achievement of all students, and their effect strengthened by synergistic supports and structures (Byrnes, Cornesky & Byrnes, 1992; Glaser, 1989, 1992; Lezotte, 1992; Schmoker & Wilson, 1993). These four school improvement initiatives that dominate the literature, then, are being used in this study to survey school district leaders and to begin the interview discussions that will explore how they are being used in their schools in response to the 10th grade Connecticut Academic Performance Test (CAPT).

School Improvement Initiatives Linked to Staff Development Supports (Research Question #2): One of the synergistic supports for school improvement initiatives is quality staff development that translates into improved student learning in the classroom, and consequently improved achievement on state-mandated assessments (Darling-Hammond, 1996). Although state standards and assessments can provide some motivation and direction for school reform, teachers need training in learning how to teach to them if they are to ultimately effect the bottom line of student achievement (Slavin, 1996; Smylie, 1996). What makes this issue more critical is that the training needs to match the more performance-based style of the new standards and assessments that are major departures from the traditional multiple choice tests to which most teachers are accustomed (Blum & Arter,1996; Bond, 1995; Glaser, 1994; Hibbard, 1996; Newman, 1997; Perrone, 1991; Stiggins, 1993; Wiggins, 1993).

James W. Stigler's (1999) comparison videotapes of classroom instruction in the U.S., Germany and Japan show that teaching methods in American classrooms rely more

on the traditional rote procedures of memorization, and less on the newer forms of problem solving that lead to conceptual understanding. In another study by Linn, Lewis, Tsuchida and Songer (2000) examining why U.S. and Japanese students diverge on international norms beyond fourth grade, the authors conclude that the larger educational system in Japan allows for a different kind of collaborative, lesson-based professional development that gives teachers time to develop and use a variety of student-centered techniques, such as eliciting ideas and revisiting hypotheses.

The fundamental issue here is the extent to which school improvement initiatives are supported through staff development in a variety of teaching strategies that support the newer standards and assessments, such as thematic instruction, differentiated instruction, interdisciplinary teaming, heterogeneous grouping, constructivist teaching/learning, and cooperative learning. When Stigler (1999) describes what he sees when he looks at videotapes of teachers, his assessment is that he does not see evidence of incompetent teachers, but he does see teaching methods that are less effective. He talks about how teachers need professional development time and support so that they can figure out how to take the average teaching method and modify and adjust it to make the necessary improvements.

If we use Wolk's (1997) analogy, staff development could be considered a key part of the "delivery system", or one of the pieces of "meat" in his "standards and assessment sandwich." While efforts to strengthen the craft of teaching through testing, licensure, and accreditation are being made, we still have large numbers of teachers working without the proper training to keep up with the latest educational reform initiatives (National Commission on Teaching and America's Future, 1996; Wolk, 1997).

One good example is learning to use the kind of performance assessment tools that are being incorporated into statewide assessment systems. These require special preparation and practice before they can become an integral part of a teacher's repertoire of instructional strategies. And how effective that repertoire is has long-term effects on how students perform. A number of recent studies showed that the impact of teacher effectiveness on student achievement is more long-lived than one would expect with 5th graders still showing the impact of a quality 3rd grade teacher two years later (Sanders & Rivers, 1996; Haycock, 1998).

There are few who argue against the case for more and better staff development. Sarason (1990; 1992), a highly regarded proponent of educational change in the U.S., says that our schools, intractable to reform efforts for many years, are doomed to fail because we have not yet changed teacher training. Fullan (1993) is much more optimistic in his prediction that teachers will change if we support them with resources, both human and material, and follow through. In 1996, the National Commission on Teaching and America's Future led by Linda Darling-Hammond, declared that a caring, *competent, and qualified* teacher for every child is the most important ingredient in education reform (National Commission on Teaching & America's Future 1996). After two years of intensive study and discussion, this auspicious panel of education professionals and political leaders affirmed Sarason's (1990, 1992) position that, what teachers know and can do, makes the crucial difference in what children learn. The recommendations in this report include designing staff development for experienced teachers on how to teach to standards and assessments, restructuring time so that teachers can work in teams with one

another and with groups of students, and on completely reinventing teacher preparation programs (National Commission on Teaching & America's Future, 1996).

A growing body of research supports the notion that teachers are able to use and adapt school improvement initiatives to meet the needs of their students, if and when they are given the internal professional development supports for reform (Senge, 1994; Fullan, 1993; Elmore, 1996; Smylie, 1996; Spencer, 1996). But this appears to be complicated for American teachers. In the United States, only 7% -12% of the hours in a week is spent on planning time, compared to15%-20% in Europe and Asia, and approximately 40% in Japan. In other countries, adequate time is provided during the normal workday for planning, study groups, peer coaching and research. Moreover, the most successful staff development programs are sustained over three years and engage multiple as well as entire members of the school's staff (National Foundation for the Improvement of Education, 1996). Although business and government restructured in the 80s and 90s to build professional learning into the workplace, the education profession is still wrestling with when and how to give teachers the sustained time to advance from discovering a new idea, to changing practice, to increasing student achievement.

Teachers cannot teach what they do not know. They must understand what standards and assessments are in order to integrate them into the curriculum; they need to learn how to use performance assessment tools; they need to learn how to work in teams and how to use reconfigured time effectively. They need time to learn better methods, to refine lessons, and to coach each other, if they are to have an impact on student achievement (Miles, 1993; Smylie, 1996; Slavin, 1996).

Some states have included supporting staff development for teachers in their education reform legislation. In a 1998 survey of the State Departments of Education, 36 states require time for professional development; 49 states (Wyoming is the exception) provide professional development opportunities, and 35 states offer funding for professional development (Olsen, 1999). But more importantly, states are recognizing the need to link staff development with school improvement initiatives. For example, in the Council of Chief State School Officers report on key state education policies (1998), seven states reported currently having in place policies that link or align teacher professional development with content standards for students. Another eleven reported working on policies connecting professional development to standards. Some of the more unique statewide efforts to link professional development with school improvement initiatives are as follows:

- Virginia legislated that 100% of state funding for professional development require a plan aligned with K-12 standards (Portner, 1999);
- Missouri earmarked 1% of state aid to districts for professional development, and also designated 1% of the state budget for regional professional development centers (Blair, 1999);
- In Oregon, $4.6 million in grants were awarded for staff development in 1995-96 with $8 million proposed for 1997-98 (Olsen, 1999);
- Maine allocated $2 million for professional development to help teachers teach to higher standards (Hoff, 1999);

- The state department in Maryland encouraged the business community to work with the universities and the schools to create 14 professional development schools across the state (Portner, 1999);
- In 1998, New York required first-time teachers to meet professional development requirements to keep their licenses with 175 hours over five years related to states standards and assessment (Hendrie, 1999);
- Oklahoma allocated $14 million, up from $9.8 million, for staff development in 1998, focused on special training in reading, math and science, and to supporting seven professional development centers (Trotter, 1999).

These efforts are very different from the traditional packaged professional development that is unrelated to what teachers are expected to be doing in the classroom. They each have professional development at the core of their comprehensive effort to improve student achievement; they all have professional development strategically linked to long-range goals. Cuban (1992) and Speck (1996) refer to this type of professional development as fundamental reform that transforms institutional structures and contributes to sustained change in schools. The notion of connecting professional development to school improvement is shared by many educational leaders who agree that, if current efforts at school reform are to succeed, they need to be built on a strong foundation of weaving continuous learning for teachers into the fabric of the teaching job (Calhoun, 1994; Darling-Hammond, 1996; Hord & Boyd, 1995; Joyce and Showers, 1996, 1995; Sparks & Hirsh, 1997; Speck, 1996; National Foundation for the Improvement of Education, 1997). Elmore (1996) describes professional development as permeating the work of the organization, and the organization of the work makes

instructional improvement through staff development as the central purpose and rationale of schooling.

If the standards movement is to remain in the forefront of the education reform agenda, effective staff development will need to be a multiple, diverse and on-going process, not a one-shot approach (Caldwell, 1989; Crandall, 1983; Darling-Hammond & Mc Laughlin, 1995; Wood & Thompson, 1993; Wood, Thompson, and Russell, 1981). Darling-Hammond (1996) describes it as a daunting task that means changing the daily behaviors of 2.6 million teachers in approximately 100,000 schools in 16,000 school districts; and also requires all members of the school community to develop an understanding of these school improvement initiatives and the complex kinds of instructional practice needed to make them happen. This is a daunting task, indeed, particularly since it is expected that there will be 2 million new teachers in the United States by the year 2007 (Bradley, 1999; Oakes, 1998).

Staff Development in Connecticut: Connecticut is known for focusing its reform efforts on improving teaching through establishing the highest national standards for teacher licensure along with the highest teacher salaries in the United States (CCSSO, 1998; Gandal, 1997; Bradley, 1999). The 1986 Education Enhancement Act established minimum salaries for new teachers, earmarked state funds for raising the salaries of experienced teachers, tightened certification requirements, and required veteran teachers to earn continuing education credits (CEUs). Moreover, CEUs in specific areas that the state believes licensed teachers need continual updating, such as reading, technology and mainstreaming of second language learners, have become requirements for recertification.

More recently, aspiring teachers are being required to pass competency exams that are considered among the hardest in the country, while beginning teachers, in their evaluation process, are being required to compile a portfolio of their students' work as evidence of their teaching ability. In addition, in its recommendations for teacher evaluation plans, the Connecticut State Department of Education (1998) encourages educators to develop professional development plans that align with student learning goals and objectives, and that provide an evidence-based system designed to show student growth over time.

School Improvement Initiatives Linked to Teacher Evaluation Processes (Research Question #3): Staff development alone, however, cannot provide all the motivation and direction to meet the demands of the current education reform movement. The process of setting academic standards, aligning them with assessments, and developing school improvement initiatives along with the needed staff development reaches a whole new level of heightened concern when the demand for results is added. While accountability for student performance appears to have taken center stage in the education reform agenda (Elmore, 1996), the connection between school improvement initiatives and staff development to accountability has been slow to take hold (Afflerbach, 1996; Almasi, 1995; Conley, 1993; Goldman, 1994; Goldman, 1995; Howe, 1995; Kentucky School of Education, 1995; Keyes, 1995; Noble, 1994; Wisconsin State Department, 1995). In the last few years, states have been devising methods and measures to, on the one hand, hold schools accountable and, on the other hand, hold individuals, such as administrators, teachers, students, and even school board members, accountable for standards measured by assessments. While state accountability measures

appear to be an ever-changing moving target, the following is what existed on a statewide basis as of January 2001:

- Forty-nine states had academic standards in at least some subject areas;
- Fifty states tested how their students are learning;
- Forty-five states published annual report cards on individual schools;
- Twenty-seven held schools accountable for results, either by rating the performance of all schools or by identifying low-performing ones;
    - Eleven of these rated performance based entirely on test scores;
    - Sixteen of these included other measures such as attendance and dropout rates, but these rarely carried enough weight to alter the rating;
- Eighteen required students to pass state tests to graduate, and six more planned to do so. (Almost all have a waiver process that allows some students to earn a diploma without meeting testing requirements and 15 mandate help but only nine are funded;
- Three states required that students to pass state tests to be promoted. (Of the three, two subsidized remediation);
- Some states judge schools by test scores over time, while others hold all schools to the same absolute standard;
- Fourteen states have given their education departments the power to close, takeover or overhaul chronically low-performing schools. (Few have yet to exercise this authority);
- Twenty states provided monetary rewards for individual schools based on performance;
- Six states offered student incentives in the form of scholarships

- Only one state (Texas) evaluated individual teachers in part on the ratings their schools received, while two states (Delaware and Georgia) were planning to use student-achievement data to evaluate teachers in the future (Elmore, 1996; Johnston, 1999; Manzo, 1999; National Association of State School Boards of Education, 1998; Making Standards Matter, 1996; Olson, 2001).

On a statewide level, only Tennessee and Texas have come closest to linking teacher evaluation to student achievement (Bradley, 1999). With respect to holding schools accountable, Tennessee publicly names schools at the bottom with the threat of takeover if no improvement is made. In terms of holding individuals responsible, Tennessee has teacher effect reports that describe the degree to which teachers have influenced student test scores. While principals cannot use them for teacher evaluations, they can use data to make staff development recommendations. Although these teacher effect reports are not being used extensively yet, administrators are finding that the data on student achievement affirm the belief that skilled teachers do have long-lived positive effects on student performance (Viadero, 1999).

In Texas, both schools and districts receive ratings from 1 to 4 based on test scores in mathematics and English that are reported by race, ethnicity and socioeconomic status. The teacher evaluation appraisal system for the first time in 1999 is being linked to student performance on the Texas Assessment of Student Skills (TASS) as well as student attendance and the dropout rate (Johnston, 1999). In addition, Texas is the only state that holds teachers accountable for their school's overall performance as a means of encouraging collaboration toward achieving school-wide goals. One-eighth of each

teacher's yearly evaluation is based on the school's performance on state tests (Grissmer & Flanagan, 1998; Bradley, 1999).

In Florida, letter grades are given to every school based on test results, and tuition vouchers are offered to students in schools that consistently score at the lower end. With 10,000 teacher openings every year, bonuses are offered to recruit and retain staff in hard-to-staff areas, as well as to recruit and retain outstanding teachers. In addition, forgivable education loans are available for teachers in good standing who agree to teach for at least 2 to 3 years after graduation. With respect to linking teacher evaluations to student achievement on state assessments, state leaders in Florida are hoping to measure individual teachers' performance on an average of actual student progress from year to year starting in 2004, after their expanding testing system is in place (Sandham, 2001).

In Colorado, it is required to consider student performance in teacher evaluations, but it is left to local districts to determine what that means. North Carolina came very close to linking teacher evaluation to student performance with its ABCs of Public Education law that required teachers in the lowest performing schools to pass a general test of knowledge. At the last moment, legislators backed off and decided instead to provide more money and staff development for these schools. However, external review teams can still recommend teachers, whose competency is questioned in evaluations, to be tested and then barred from teaching if they fail twice (Bradley 1999). These efforts, however, are by no means widespread, and whether they will be successful in systemically affecting student outcomes on state-mandated tests remains to be seen.

With 2 million new teachers are expected to be hired by the year 2007 (Bradley, 1999; Oakes, 1999), it is crucial that schools, districts, states and the federal government

focus on new teacher development. The National Commission on Teaching and America's Future (NCTAF) was formed to support districts in creating the structures and processes that encourage expanded, more collegial and collaborative teacher evaluation systems (Darling-Hammond, 1996). NCTAF now has forty-four districts working on professional teaching standards that will become the basis for assessments to look at how candidates for licensure actually perform teaching tasks (National Commission on Teaching and America's Future, 1996).

With respect to tenured and experienced teachers, districts are creating professional growth tracks that provide opportunities to work collaboratively with administrators to develop long-term professional development plans that are tied to the school and/or district's expectations for student achievement. In addition, peer observations, study groups, and collegial problem-solving are some of the alternative approaches being used to complement the more traditional forms of teacher evaluation (Calhoun, 1999; Darling-Hammond, Hayes & Ellison, 1999; McGreal, 1996; Sparks, 1999). Alternative approaches, notwithstanding, the widespread view is that tenured teachers are rarely fired, and those who are, are usually hired elsewhere. This was confirmed by Ward (1995) in his study of teacher tenure and dismissal in North Carolina. Although there was common agreement that more teachers deserved to be removed, school leaders in the 30 districts that were studied seemed to be unwilling to confront the task of dealing with teacher evaluation performance problems (Ward, 1995).

There are some states that have made efforts to confront the teacher evaluation tenure issue. In 1997, Oregon replaced permanent employment for teachers with a two-year contract that ties teacher evaluation to student achievement (Bradley, 1999). In New

York, although tenure remains, beginning in 2001 school districts must include teacher evaluation results in the state's school report card. Instead of being able to just take action on moral character, the state will be able to revoke teachers' licenses for incompetence, neglect of duty, and insubordination with respect to continued professional development and annual evaluations (Bradley, 1999). A number of urban districts, including San Francisco and Chicago, are using reconstitution as a means of overriding the teacher evaluation tenure issue. The results, however, have been that most teachers are either rehired in their own district or end up elsewhere (Bradley, 1999). Overall states and districts are finding that making changes in teacher evaluation procedures and tenure laws are very difficult to implement.

Incentives to Improve Student Achievement: Incentives are becoming more widespread as a means of creating accountability for school improvement initiatives aimed at improving student achievement on state-mandated tests. There are some states that have created consequences for mandated assessments that do result in gains or losses in funding, loss of accreditation, and warnings or takeovers of the schools. For example, in Kentucky, mandated assessments are used not only to rate children but also to give rewards and sanctions to schools (Darling-Hammond, 1994; Koretz, 1996).

There is, however, a growing interest in creating incentives that reward teachers for student achievement. Haney and Madaus (1986) found that when indicators come with stakes attached, that is, rewards, accreditation, student promotion and graduation, changes in behavior can be predicted with great certainty. More and more states are using Motivation Theory with a wide variety of strategies, involving various combinations of rewards, interventions, and sanctions to induce teachers to improve student achievement.

Most incentive programs grant financial rewards to entire schools based on either superior or steady improvement, while some give individual teacher bonuses (NASBE, 1998).

- Kentucky was the trailblazer in 1990 with its bonuses of approximately $2000 to each teacher in schools that exceeded state expectations for improvement (Harp, 1997, Koretz, 1996; Darling-Hammond, 1994). More recently, individual bonuses have been outlawed in favor of school wide rewards for performance with building committees deciding how to spend the money (Archer, 1999).
- Indiana, Maryland and New Mexico require that all merit bonuses be reinvested in each school. In Maryland, this could mean anywhere from $15,740 to $64,605 to an individual school that shows improvement over a two-year period in dropout rates, attendance, and scores on state assessments (Archer, 1999).
- Utah offers up to $5000, plus $20 per student, to each school that achieves "centennial status" for locally based reform initiatives linked with state standards and assessment (Walsh, 1998).
- Georgia requires schools to apply in advance with school improvement plans to take part in the Pay for Performance Program. If a building achieves 80% of its objectives, it receives $2000 per certified staff member to spend on whatever it pleases including salary bonuses (Archer, 1999).
- Cincinnati, Ohio and Rochester, N.Y. have career pathways that tie evaluation to pay increases at key stages as teachers move from initial license to professional teacher, while Tennessee has a five-step career ladder to reward teachers for their schools'

performance against state standards (Diegmueller, 1998; Kellor, 1998; Ponessa, 1998).

- Florida's new School Recognition Program requires schools to submit to a site visit and present evidence of improved test scores and reduced dropout rates. A school cannot receive an award, however, teachers salaries are based, at least in part, on student performance (Archer, 1999). Florida also joined the growing list of states offering incentives to become certified by the National Board for Professional Teaching Standards. This could mean an average bonus of $3400 a year with the opportunity to double it for those who agree to mentor other teachers seeking national certification.

In Texas and North Carolina, where incentives are linked to student performance on statewide assessments, results have shown the largest, most significant and sustained average gains on NAEP scores from 1990-1996 with scores of disadvantaged students improving more rapidly than those of advantaged students (Grissmer & Flanagan, 1998). In an analysis of reform in both states by researchers commissioned by the National Goals Panel, changes in the organizational environment and the incentive structure for educators emerged as the decisive policies and actions that most plausibly explain the large gains (Grissmer & Flannagan, 1998). Texas is particularly unique in that its three tier system for accountability focuses on district school improvement initiatives organized around staff development (Griessmer & Flannagan, 1998).

Incentives in the form of promotion and graduation are also being used to motivate students to improve their performance on assessments. These often create an

indirect pressure on schools, especially when states publicly report mean student test scores.

- Nineteen states require students to pass a test to graduate and seven more will have similar tests by 2003.
- Fourteen states award special diplomas for passing a test, for completing advanced course work, or for earning high grades.
- Eight states offer scholarships for students who perform well in high school.
- Six states now have laws that will tie promotion to test scores in the future.
- One state requires students to pass an 8th grade reading test before being given the opportunity to apply for a driver's license.
- One state gives a school $800 for each student who earns honors. Schools can choose to pass the money on to students (Johnston, 1999). Although some efforts have been more successful than others, it does appear that more and more states and districts are using teacher evaluation and incentives to create teacher evaluation processes to motivate educators to work harder to improve student achievement.

Although some of these efforts seem to be more successful than others, more and more states appear to be attempting to use teacher evaluation and incentives as a means of creating teacher evaluation processes that motivates teachers to focus on improving student achievement.

Teacher Evaluation in Connecticut: Connecticut's direction for teacher evaluation is focused on "getting it right the first time with beginning teachers" (Wise, 1997, interview tape #1). Using the research on how to develop expertise over time, Connecticut districts are mandated to support and mentor new teachers in the form of

mentoring and staff development focused on improving student achievement (McGreal, 1996). They are learning how to interpret student test data as it relates to curriculum standards and assessments. They are using journal writing, portfolios and videotapes to document their teaching skills and strengths. They are integrating a variety of teaching materials including manipulatives, computer software and resources on the Internet into their everyday classroom lessons. They are seriously reflecting on their teaching and their ability to modify and adjust to meet the needs of their students (Bradshaw & Hawk, 1996; Nekovei, 1997; Peterson, 1995; Reistter, et al 1995; Riggs, 1997; Wolf, 1997).

In an effort to underscore Connecticut's long-term reform agenda to promote high standards for students and teachers, a new publication, Connecticut's Commitment to Excellence in Teaching: the Second Generation (1999), highlights the state's central focus on improving the quality of its professional educators. This document not only reiterates the state's expectations for students in the Common Core of Learning and for teachers in the Common Core of Teaching, but it also designates teacher evaluation and professional development as the critical links between effective teaching and increased student learning. "The district's school improvement initiatives will become effective and coherent when teacher evaluation and school improvement processes are integrated with an ongoing systematic staff development strategy" (Connecticut State Board of Education, 1999, p. 53).

In an attempt to enforce these connections, the state is requiring all districts to update their teacher evaluation plans as well as their professional development plans, and align them with improved student learning. Moreover, student learning is defined broadly in the document to include "teacher and administrator assessment of student work

samples, performance measures (e.g., holistic scoring of writing) as well as teacher-designed tests and standardized tests (e.g., CMT and CAPT); and technology to permit teachers to disaggregate data (e.g., using the strategic school profile database) to determine program strengths and weaknesses" (1999, p. 55). The hope is that these revised plans will ensure the development of a support structure that builds human capacities and challenges all teachers to improve student learning.

Incentives to Improve Student Achievement in Connecticut: While there are no formal incentives to improve student achievement in Connecticut, there is a kind of intrinsic motivator to improve because of the manner in which test scores are reported on statewide assessments. A comprehensive Strategic School Profile is published each year for each school and for each school district as a whole. These profiles organize school districts into Educational Reference Groups (ERGs) based on school characteristics, student needs, school resources, school performance, students' scores on state tests, and other measures of student performance. They are distributed widely and posted on the State Department's Internet website. Seven variables (income, education, occupation, poverty, family structure, home language, and district enrollment) are used to categorize districts into ERGs (Connecticut State Department of Education, 1996). The original seven groups were recently expanded to nine groups that range from the very affluent, low-need, suburban districts in Group A to the high-need, low socioeconomic status urban areas in Group I (Connecticut State Department of Education, 1996).

This classification system then gives Connecticut districts a context in which to critically review a number of different benchmarks including district spending for resources, class size ratios, computers per student, and improved student achievement

(Connecticut State Department of Education, 1996). When test scores on statewide assessments are released, scores are compared to the state average, as well as to school districts with similar socio-economic complexions. As a result, even the highest scoring districts that may be well above the state goal, have a group of similar districts against which to compare their students' achievement on state assessments.

And so, this system of reporting test scores creates a kind of heightened sense of competition in the high performing districts, as well as the low performing ones. While school districts in the low-need, suburban districts want to always be first in the State, high-need, urban areas "never want to be last" (Amato, 1999). The result is an intended (or unintended as the case may be) incentive in the use of the Educational Reference Groups (ERGs) to compare and contrast schools and student achievement in Connecticut on statewide assessments. With the exception of the state takeover of Hartford Public Schools, Connecticut did not threaten to close or takeover failing schools, nor did it offer incentives, or attach consequences. However, with the new Education Accountability Act No. 99-288 (1999), the General Assembly did set guidelines that local school boards are required to implement in failing elementary and middle schools for two years before more drastic measures of closing, reconstituting or restructuring can be mandated. Since student performance and performance trends on the state-wide mastery examinations are the basis for determining failing schools, the manner in which results on these statewide assessments are competitively reported by ERG does create a kind of annual "super bowl" report card for schools and their students in Connecticut.

Efforts are also made to encourage schools to make improvements regardless of how poorly their students perform. Connecticut uses a sophisticated index for all of its

Title 1 schools that weights the improvement students make on state assessments. For example, a district that moves more students from the below-goal category to the at-goal category, get more points in their school improvement rating than a district that moves the same number of students from the at-goal category to the above-goal category. Title 1 funding allocations, then, are based on this index, so that low performing districts are rewarded for showing improvement even if a majority of students remain below goal. Although these ratings have only been used for Title 1 schools in Connecticut, consideration is being given to rating all schools in this manner as a way of giving a more definitive picture of student progress on statewide assessments regardless of the community's socioeconomic status.

While the State of Connecticut defines standards and assessments, selecting school improvement initiatives that will impact student achievement as measured by the statewide assessments is left to the districts. Moreover, even though the State of Connecticut recommends that teacher evaluation and staff development be directly linked to student learning (Connecticut's Commitment to Excellence in Teaching: The Second Generation, 1999), deciding on the appropriate staff development supports and the teacher evaluation processes (teacher evaluation/ incentives) is also left to the districts. In other words, just as Truman said that the buck stops at the presidential door, Connecticut is saying the pressure for educational reform stops at the school district's door.

Teacher Evaluation Processes Linked to Staff Development and School Improvement Initiatives (Research Questions #4 and 5): In attempting to translate state mandated standards and assessments into instructional practice, there appears to be attempts among the states to link school improvement initiatives with staff development

and teacher evaluation. But the question is whether these connections are being implemented in an integrated and systemic manner for the purpose of improving student achievement. The belief, that no one initiative alone can significantly increase student achievement, finds its roots in the philosophy of W. Edwards Deming (1993) who described a "system" as a network of interdependent components that work together to accomplish the system's goals. Thus, the specific reforms initiated may be less important than whether they are integrated.

With Deming's approach as a backdrop, Iwanicki (1990) proposes, along with Cawelti (1997), Elmore (1995), Murphy and Hallinger (1993), Newman and Wehlage (1995), Sashkin and Ergermeier (1993) and Schlechty (1990), that school improvement initiatives work better when the parts fit together. In addition, qualitative studies of local teacher evaluation programs and reviews of state teacher evaluation policies support and substantiate the integration of the processes of teacher evaluation and professional development with school improvement (Iwanicki,1990, 1998; McLaughlin and Pfeifer 1988; Murphy, 1987, Sclan, 1994; Webster, 1995). Moreover, the need for such integration is emphasized in Connecticut's new Guidelines for Comprehensive Professional Development and Teacher Evaluation (1999) and underscored in the Standards for School Leaders in Connecticut (1999).

The challenge, then, is creating the environment for school improvement initiatives to flourish by integrating them effectively with staff development supports and teacher evaluation processes (teacher evaluation/incentives). But as Newman and Wehlage (1995) report after five years of research in over 1500 schools, there is no magic bullet or simple recipe for success for education reform, but rather all school

improvement efforts appear to be interrelated with strong supports and structures. Murphy and Hallinger (1993) affirm this belief through their eight case studies of school improvement initiatives in which they found a complex interconnectedness between staff development supports and teacher evaluation processes.

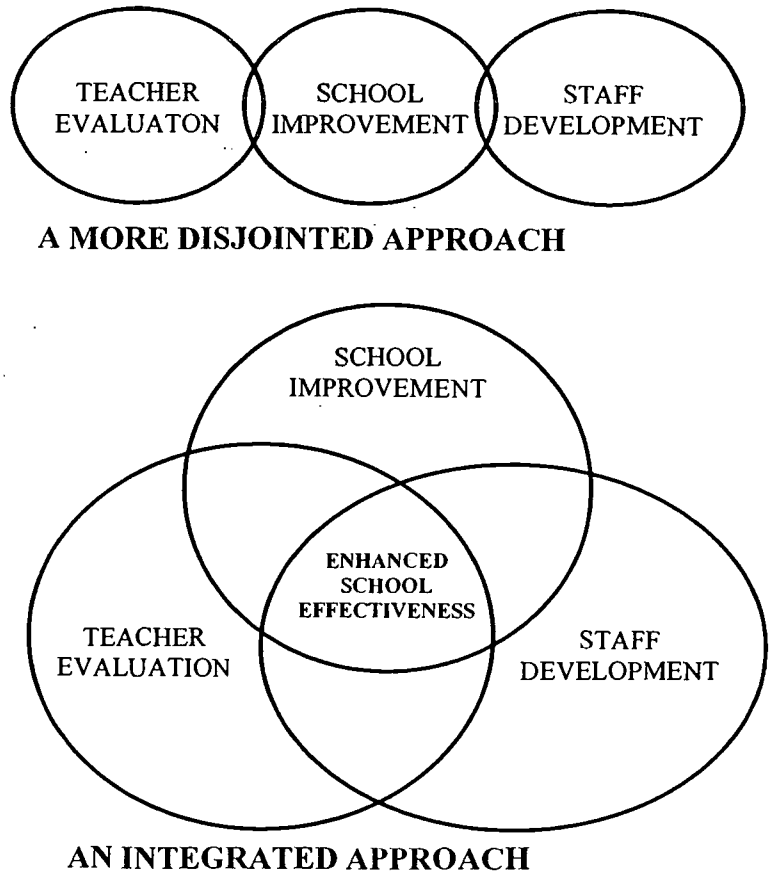
The case for integrating school improvement initiatives with staff development supports and teacher evaluation processes is confirmed in the education reform literature by a number of noteworthy researchers including Cawelti, (1994, 1997) Darling-Hammond (1997), Fuhrman (1995), Newman (1996) and Schlechty (1990). Their research findings indicate that school improvement initiatives centered around standards and assessment, along with professional development and accountability, need to be implemented in an integrated way that focuses on the critical importance of teaching and learning. Moreover, the U.S. Department of Education's Office of Educational Research and Improvement (Sashkin & Egermeier, 1993) adds strength to this argument by recommending that the interconnected operational strategies necessary to effect any systemic change include fixing the parts (school improvement initiatives), fixing the people (staff training), and fixing the school's accountability structure (teacher evaluation processes).

Iwanicki (1996) and Webster and Mendro (1995) explain how this integrated, rather than disjointed, approach has school improvement working together with staff development and teacher evaluation in a common effort to enhance school effectiveness and to achieve school goals. In addition, strong support for this model of organizing teacher evaluation as an accountability measure with staff development and school improvement initiatives is echoed in the 1996 Breaking Ranks report of the National

Association of Secondary School Principals. In this piece of research that focuses around comprehensive high school reform, successful schools are described as having many interlocking parts that are not apt to be effectively changed, unless reform efforts reach into all the various parts of the system simultaneously. Further support for this integrated approach comes from Darling-Hammond (1997) who believes that if we are to be successful in achieving America's educational goals, all changes, whether they relate to standards, staff training or rewards, must be implemented together. While Darling-Hammond's Commission on Teaching and America's Future (1996) is focusing its research primarily on staff development and teacher preparation, it does emphasize the need for all reform efforts to be an integral part of school improvement as well as teacher evaluation.

This integrated approach versus a more disjointed approach for organizing school improvement with staff development and teacher evaluation can be depicted in Figure 7, which illustrates the disjointed approach in which school improvement initiatives are created, staff development is provided, and performance objectives for teacher evaluation are created separately. In this separated approach to school improvement initiatives, staff development and teacher evaluation have only a marginal impact on enhancing school effectiveness (Iwanicki, 1990). Additionally in this more disjointed model, teachers are offered staff development on a variety of topics that are isolated and not connected to school improvement initiatives and teacher evaluation. Even in successful schools, teacher evaluation is not having an impact on student learning because it is implemented in isolation and not in combination with school improvement initiatives (Iwanicki, 1990). Rather than providing staff development and using teacher evaluation to complement the

Figure 7: A disjointed approach and an integrated approach of organizing school improvement initiatives with staff development and teacher evaluation.



FROM: Iwanicki, E.F. (1990, p. 167)

school improvement initiatives that are being implemented, the tendency is to add more new initiatives.

On the other hand, when these three constructs can be addressed in an integrated manner as depicted in the figure of intersecting circles, school improvement initiatives and staff development can be provided in a more concentrated and focused manner. Simultaneously, performance objectives based on the implementation of school

improvement initiatives in the classroom for teacher evaluation can be created. For example, when a school adopts the Success For All (SFA) reform model to systemically address student literacy skills, staff development and accountability measures are connected to this school improvement initiative in three stages:

1. The first stage consists of massive staff development for teachers and administrators that is focused on the content knowledge of reading, how children learn to read, and how to implement and evaluate the prescribed reading strategies that have proven successful in the classroom.
2. The second stage comes in the form of regular and systemic coaching and peer observation in the classroom with constant feedback and suggestions for improvement throughout the year.
3. In the third stage, accountability becomes the focus by incorporating improvement in student literacy skills into the classroom teacher's goals and objectives that are collaboratively developed with the administrator through the observation-evaluation processes that are in place in the school (Aquino, 1999).

This kind of coordinated and integrated approach then suggests a positive impact on school effectiveness (on reading in the case of SFA) as measured by student achievement (as measured by reading test scores in the case of SFA).

While there is very little, if any, formal research that examines practice as it relates to this integrated approach, there are strong expectations that student achievement will be affected positively by its implementation (Calhoun, 1994; Campbell, 1969; Sarason, 1971). This integrated approach focuses heavily on making quality school improvement decisions and creating a culture of inquiry and renewal that uses staff

development and teacher evaluation to strengthen or enhance teaching and learning (Iwanicki, 1998). The premise that school district leaders actually develop and implement school improvement initiatives and connect them to teacher evaluation and staff development, either intentionally or even unintentionally, to strengthen and enhance student achievement needs to be studied in an organized and formal manner.

Although this integrated approach has its theoretical grounding in the literature, it begs the question of whether it is being applied in practice. Even when a school adopts a nationally recognized reform model that has a research-based positively proven track record and a recipe-style implementation process, applying it in a consistent and systemic manner still appears to be a challenge. The question becomes once a school improvement initiative is adopted, what kinds of pressures do school district leaders face with respect to integrating the school improvement initiatives with staff development support and structures for accountability? And more specifically, does the socioeconomic make up of the school affect the various components or their integration?

This study sought to determine if the integrated approach is being applied in practice in Connecticut with respect to the outcomes on the Connecticut Academic Performance Test (CAPT). It adapted the three constructs of school improvement initiatives, staff development and teacher evaluation to a study of how they are being linked, if at all, in an effort to raise CAPT scores. Figure 9 illustrates the adaptation of the integrated approach and how it fits into the bigger picture of national and state level school reform as described previously in this literature review.

Beginning with the outer triangle, this study looked at individual school district initiatives within the greater context of the state and national push for developing

standards and assessments to improve student achievement as evidenced on state as well as national and international measures. In other words, is the top-down push for standards and assessments pressuring school district leaders in Connecticut to look at the three constructs of school improvement initiatives, staff development and teacher evaluation in any kind of an integrated or connected way? The graphic also suggests the possibility that socioeconomics, as depicted at the bottom of the diagram, might serve as a lever that mediates the amount of pressure for connecting standards and assessment with improved student achievement.

Inside the triangle, the three intersecting circles suggest that school improvement is the primary focus with teacher evaluation and staff development used to support that improvement for the purpose of having an impact on learning. School improvement is being defined for this study as school improvement initiatives to raise CAPT scores. As mentioned earlier in this study, in a preliminary inquiry of 34 high schools with 54% responding (Negroni, 1996), many school improvement initiatives were reported as being implemented in response to the CAPT. But the four most common ones were:

- Linking curriculum to standards and assessment (74%);
- Using performance assessment tools (62%);
- Teaming teachers and students (42%);
- Reconfiguring school time (22%).

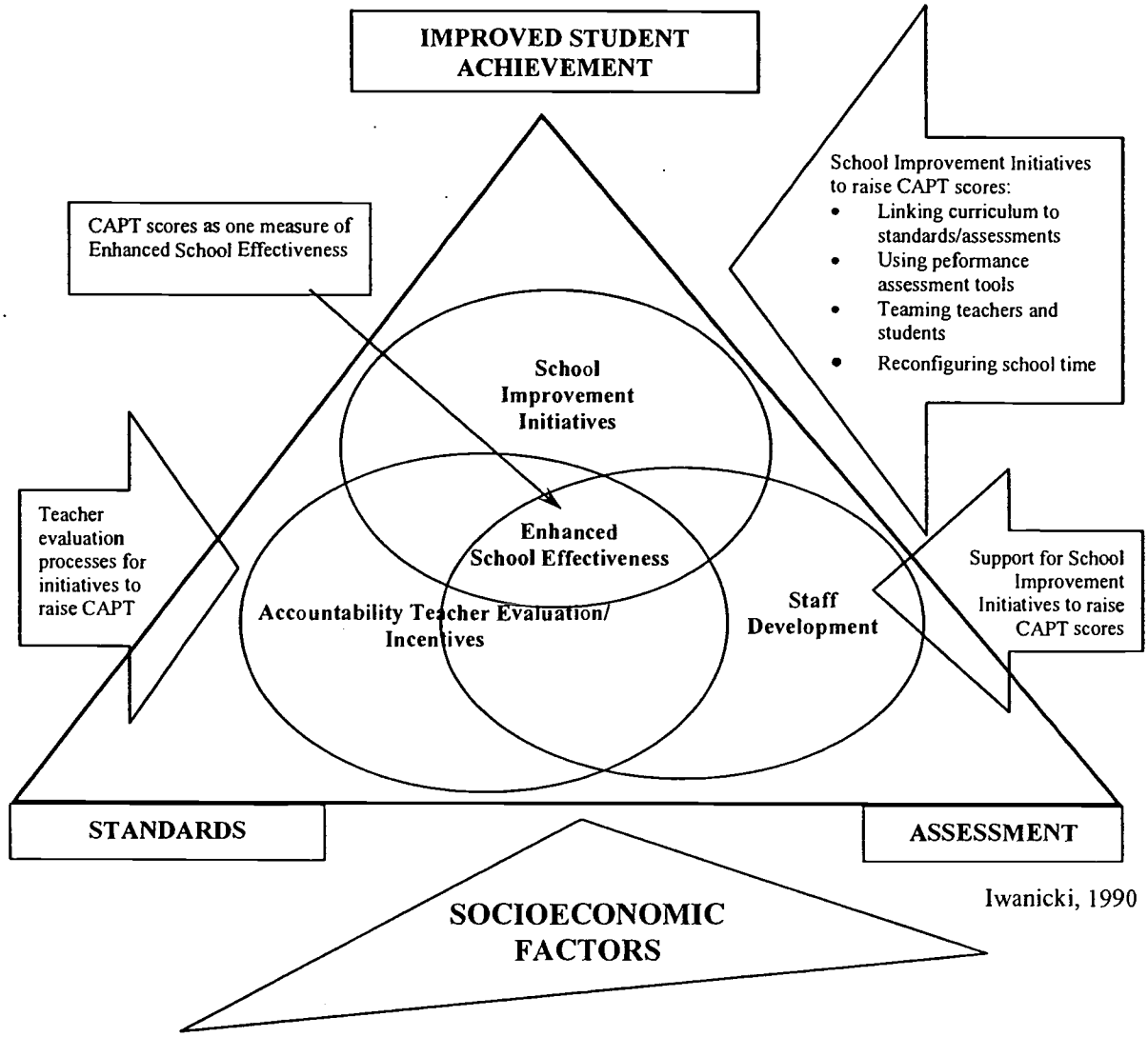
These four also emerged as predominant school improvement initiatives in a number of seminal studies on school reform (Cawelti, 1993; Conley, 1993, 1995; Elmore, 1990; Lee & Smith, 1994, 1995; Newman, 1992; Prividi, 1993; Smith, 1994; Snyder, 1994; U.S. Department of Education, 1998). Thus, this study focused on determining if

school district leaders in Connecticut are linking staff development supports and teacher evaluation processes to these four school improvement initiatives that dominate the literate on school reform.

Staff Development in both the integrated approach and in the modified version for this study, represents support for school improvement initiatives that are instituted and implemented to raise CAPT scores. While teachers may have many opportunities for learning new instructional techniques, the question is, are they linked to school improvement initiatives and is their effective application being evaluated in terms of student achievement? For example, if a school improvement goal is to have all children reading at grade level by the end of 3rd grade, the focus for staff development might be on early literacy strategies and how to implement them in the classroom. Certainly training in language acquisition, phonemic awareness and semantic feature analysis would be included in the long list of staff development trainings that would be offered. The key, however, would be whether teachers are evaluated on how well they apply these techniques in the classroom, and whether their students in fact read at grade level by the end of 3rd grade. This is the kind of integrated connection and linking that this study attempted to uncover.

Teacher Evaluation, as applied in this integrated approach, is being expanded to all and any teacher evaluation processes that are being implemented for the purpose of raising CAPT scores. Historically teacher evaluation has focused on whether teachers demonstrated the required teaching behaviors as described in teacher evaluation instruments with little or no connection to student learning. It is critical to make this link so that teacher evaluation becomes a conversation about what students should know and

Figure 8: The integrated approach and how it is being adapted into the national and state school reform movement for this study.



be able to do, and that recommendations for improvement have a direct effect on student learning (Iwanicki, 1998). The implied shift is from the standard teacher evaluation process that documents classroom observations to a more growth-oriented, professional process that strengthens and enhances teaching as well as learning. Measuring improvement in student learning as a basis for teacher evaluation also sets up the

possibility of creating incentives as a means of getting teachers to focus on those successful practices that have a direct impact on student achievement. While the literature review in this study discusses incentives and even sanctions for schools, teachers and students, the integrated approach only addresses teacher evaluation. This is most likely because it was developed within the context of teacher evaluation in Connecticut where incentives are not yet an option.

However, incentives can take on many forms in terms of individuals and schools. For example, some districts recognize individual teachers' exceptional progress in terms of their students test scores by making them peer coaches or facilitators. Since these positions are often stepping stones to the administrative level, they do serve as a kind of school district incentive to raise test scores (Aquino, 1999). In addition, some districts offer stipends to teachers to share their success stories with their colleagues during after school professional development sessions (Quezada, 1998). Time to present at conferences is another form of incentive that some teachers may see as recognition for their efforts.

As an incentive from the school perspective, American competitiveness to be #1 can be the rallying point for a staff to work together to achieve gains. In the case of programs like Success For All, becoming a demonstration model school in less than two years is an incentive recognition that only a few schools ever achieve. Those that do achieve this distinction are invited to national conferences and are recommended for site visits by other districts. In this study, therefore, the teacher evaluation construct was expanded to include incentives, particularly because of the implied incentive of competition that is created in Connecticut through the ERG system that rates

socioeconomically similar school districts against each other for the purposes of test scores reporting.

Finally, *Enhanced School Effectiveness* is at the center of the intersecting circles in the graphic. The integrated approach suggests using a variety of measures, including norm-referenced and criterion-referenced tests, as measures of enhanced school effectiveness. These measures are also supported in the literature on Effective Schools (Levine & Lezotte, 1990) that shows school effectiveness as being able to be measured by these methods. Moreover, standardized tests are often used to evaluate school improvement because parents and the public are interested in learning how students perform compared to others in the state, as well as to those in their geographic region and nationally.

In this study, the intent is not so much to measure school effectiveness using CAPT scores, but to look at the bi-directional relationship between CAPT scores and school improvement initiatives across secondary schools in Connecticut. While school district leaders implement school improvement initiatives based upon their interpretation of their school and district CAPT scores, these interpretations are partly dependent on the district's placement in its Educational Reference Group (ERG). For example, the town of Weston may have the highest CAPT scores in the State, but school district leaders may interpret them as needing improvement for their community and may find the need to implement new school improvement initiatives or offer more concentrated staff development for existing ones. On the other hand, an urban district like Stamford may continue to show a third of its students below the State goal on CAPT scores, but significant progress is being made each year by that third of the student population

toward those benchmarked goals. These school district leaders may choose to scale up the initiatives that are being implemented by offering incentives to teachers who move their students closer to and/or reach the state goal on the CAPT. Thus, there are two main thrusts to this study:

1. Systematic documentation of the school improvement initiatives that have been motivated by CAPT scores with two main objectives: a) to examine the patterns that emerge across schools and across ERGs, and b) to examine the patterns that emerge with respect to integration of initiatives with staff development and teacher evaluation processes.
2. Systematic exploration of the proposition, based on a limited study, using a small sample size, that leaders from different ERGs will interpret test scores differently and may be motivated differently to implement school improvement initiatives.

While this literature review indicates sporadic attempts across the country to link school improvement initiatives with staff development supports and teacher evaluation processes, the concept of integration has not been studied for any systematic or even serendipitous application. Although the federal and state role seems to be creating the context for encouraging reform, it is still up to the districts and schools to create and sustain the staff development supports and the teacher evaluation processes to enable school improvement initiatives to have a positive impact on student achievement. This study used a modified version of *Iwanicki's Integrated Approach* (1994) to explore which school improvement initiatives school district leaders in Connecticut are implementing in response to the CAPT, and to examine in what ways, if any, these initiatives are being integrated with staff development support and teacher evaluation processes. In addition, it

sought to discover what similarities and differences exist with respect to school improvement initiatives, staff development support and teacher evaluation processes among comprehensive public high schools in Connecticut, and whether any patterns emerge when schools are grouped by Educational Reference Groups (ERGs).

RESEARCH QUESTIONS

1. What kinds of school improvement initiatives are school district leaders in Connecticut developing in an effort to improve student achievement on the CAPT?
2. In what ways, if any, are school district leaders in Connecticut linking school improvement initiatives with staff development for the purpose of improving student achievement on the CAPT?
3. In what ways, if any, are school district leaders linking school improvement initiatives to teacher evaluation processes for the purpose of improving student achievement on the CAPT?
4. In what ways, if any, are school district leaders linking teacher evaluation processes to staff development.
5. In what ways, if any, are school district leaders integrating their school improvement initiatives with teacher evaluation processes and staff development for the purpose of improving student achievement on the CAPT?
6. What, if any, patterns exist among schools in the implementation and/or integration of school improvement initiatives, staff development support and teacher evaluation when schools are grouped by Educational Reference Groups (ERGs)?

CHAPTER 2

METHODOLOGY

To address the five research questions, this study gathered preliminary data through the use of a quantitative survey with some open-ended questions and follow-up in-person and telephone interviews to probe more deeply into selected survey responses.

Sample: The Connecticut Association of Secondary School Principals (CASSP) provided a mailing list of 178 high schools in the State. After eliminating private and regional Vocational Technical schools, a survey with cover letter (see Appendix A) was sent to the principals of 139 comprehensive high schools in Connecticut. One hundred fourteen principals responded (82%) over a period of five months from October 1998 through February 1999. The first mailing was followed up six weeks later with a second mailing to the non-respondents. Upon receipt of the second mailing, a review by Educational Reference Groups (ERGs) was conducted to ensure a minimum response of 50% from each ERG. A third letter was sent to non-respondents in the three ERGs that did not have the 50% minimum level. At the close of the five-month survey period, all reference groups were represented in the respondents with a participation range of 66% to 94% and overall average participation rate of 82%.

Table 2 lists the Educational Reference Groups (ERGs), the number of districts in each ERG, the number of high schools in each ERG, the number of high schools responding in each ERG and the percent of high schools responding in each ERG. The highest percent of high schools participating in the survey came from the lowest socioeconomic ERGs, H and I. The lowest participation came from the second highest

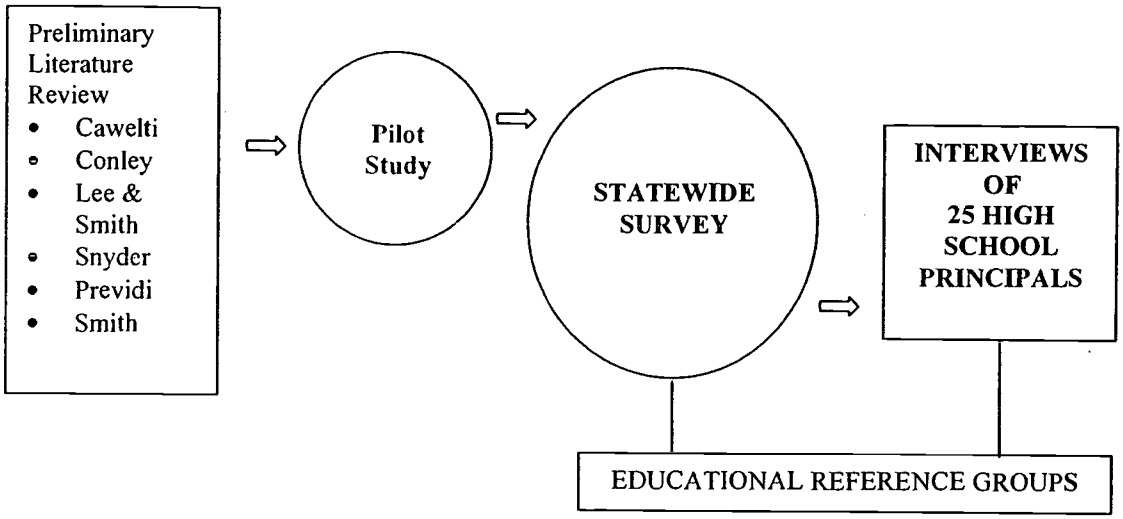
Table 2: Survey Respondents by Educational Reference Groups (ERGs)

Reference Group	# of Districts in ERG	# of High Schools in ERG	# of High Schools Responding	% of High School Responding by ERG
A	12	10	8	80.0%
B	19	18	12	66.6%
C	38	18	14	77.7%
D	21	19	17	89.4%
E	26	8	6	75.0%
F	16	17	14	82.3%
G	16	10	7	70.0%
H	14	22	20	90.0%
I	7	17	16	94.1%
Totals	169	139	114	82.0%

socioeconomic ERG, B. For the rest of the ERGs, the percent of participation ranged from 70 to 80%.

Instrumentation: Figure 9 depicts the cognitive map of the four phases in which this study was conducted for the purpose of looking for patterns and discovering regularities that repeated across the data. To collect preliminary answers to the five research questions, a modified version of Iwanicki's Integrated Approach (1994) was used as a framework for a survey to examine how school district leaders in the various ERGs are responding to state-mandated standards and assessments for the purpose of improving student achievement. Based on a review of the literature on school improvement initiatives to raise student achievement on state-mandated assessments (Cawelti, 1993; Conley, 1993; Lee, 1994; Negroni, 1996; Previdi, 1993; Smith, 1994), a survey was piloted in 1996 with all comprehensive high school principals in ERG H. Edits were made to eliminate ambiguities, and the format was adjusted for ease of use as

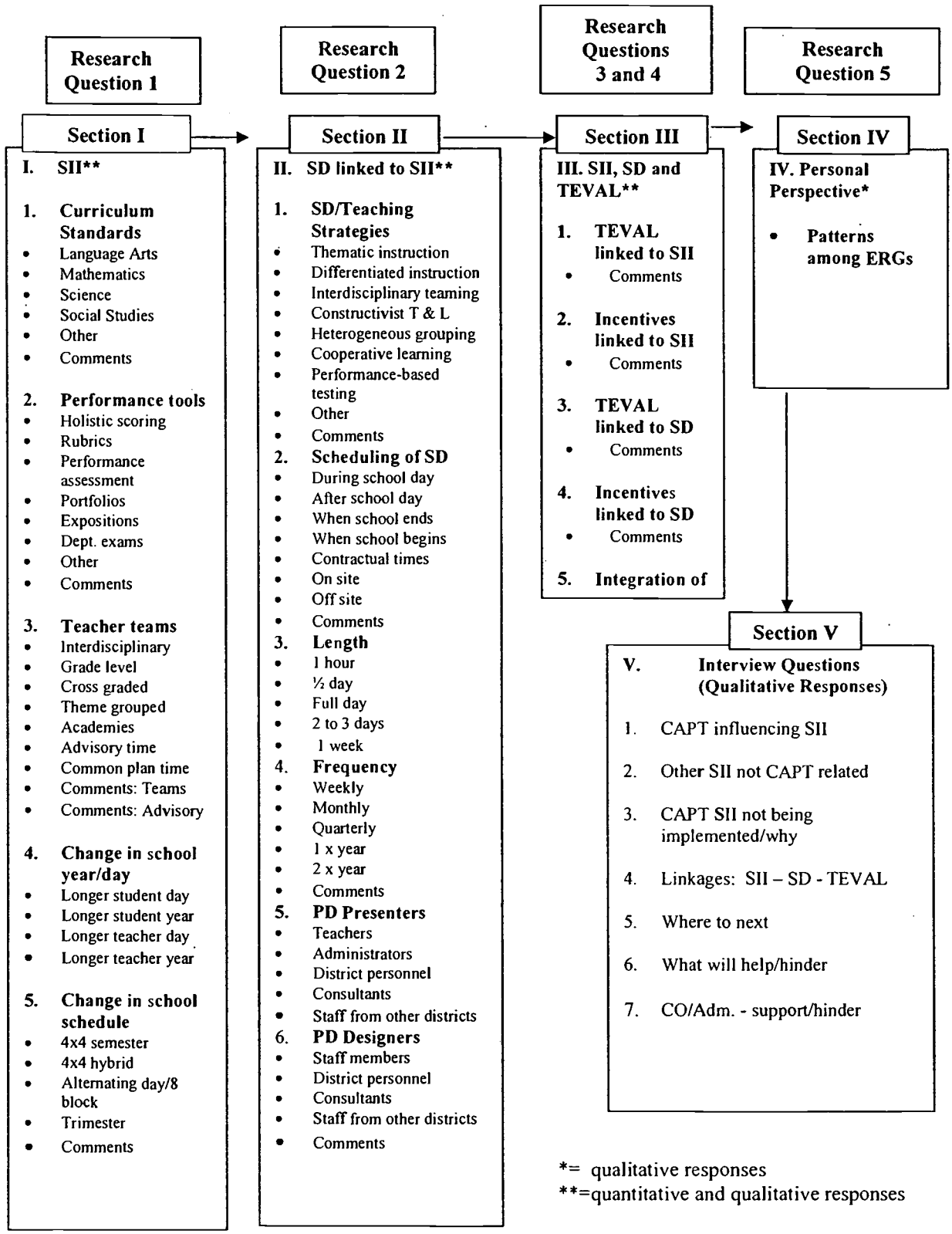
Figure 9: Four phases of this study of an exploration of how school district leaders are responding to the Connecticut Academic Achievement Test (CAPT).



recommended from the pilot feedback. The survey consisted of four major sections: I) School Improvement Initiatives (SII); II) Staff Development Support for School Improvement Initiatives (SD); III) Teacher Evaluation Processes (TEVAL); and IV) Personal Perspective/Other Comments. (See Appendix A for sample survey.)

Data Collection: Figure 10 depicts a synopsis of the survey questions and how they relate to the research questions in the study. Sections I, II and III contained quantitative and qualitative responses while Section IV was entirely qualitative. Starting from the first long box on the left, Section I of the questionnaire correlated to research question 1 that asked for the kinds of school improvement initiatives school district leaders were developing in response to the CAPT. Section II of the questionnaire, which focused on staff development for school improvement initiatives, aligned with research questions 2 and 4 regarding the ways in which school district leaders were linking school improvement initiatives to staff development. Section III of the questionnaire related to research questions 3 and 4 that asked about the integration of school improvement

Figure 10: Conceptual framework of how survey questions relate to the research questions in this study.



*= qualitative responses
**=quantitative and qualitative responses

initiatives with teacher evaluation and incentives. The qualitative responses to Section IV in the questionnaire related to research question 5 that looked for patterns among schools in implementation and integration when grouped by ERGs. The rectangular box on the bottom right side of Figure 10 represents the data collected during the follow up interviews. Responses for all of these questions were used to interpret and elaborate on the quantitative and qualitative survey data.

Data Analysis: To determine when school improvement initiatives (SII), staff development support (SD), and teacher evaluation processes (TEVAL) are being implemented, survey respondents were asked to indicate whether the items listed were 1) presently not in place, 2) presently being considered, 3) presently in process, 4) in place since the CAPT, and 5) in place before the CAPT. In the response scale, presently not in place, presently being considered and in place before the CAPT was used to eliminate items that were not linked to the implementation of the CAPT. Presently in process and in place since the CAPT were used to determine those items from the survey that could be linked to the implementation of the CAPT. School Improvement Initiatives (SII) had five subsets with a number of questions in each, Staff Development Support (SD) had eight subsets with a number of questions in each, and Teacher Evaluation Processes (TEVAL) had four subsets with one question in each. Responses to the Likert-scaled questions were tallied and means were calculated for each question in the subset. The average of the averages, or grand mean, was then calculated for each subset. Schools were rank-ordered based on grand means for of SII, SD, and TEVAL.

For the open-ended responses in the survey, a qualitative methodology was used to analyze the textual data to discover regularities or patterns that repeated across the data

(Tesch, 1990). Responses were also rank-ordered by ERG to determine whether they showed a pattern or a clustering of responses with respect to ERGs. These patterns then were used to sort out the interview data in a process of constantly comparing content and defining properties or concepts until a "sense of the essence" (Glaser & Strauss, 1967) was reached.

To answer research question #5 concerning patterns among Educational Reference Groups, the survey data were used to identify a sub-sample of no less than five high schools that showed the highest levels of integration, and no less than five schools that showed the lowest levels of integration with respect to school improvement initiatives, staff development, and teacher evaluation processes. High schools were selected for follow-up interviews based on the following criteria:

1. The five highest and the five lowest scoring schools were selected for interviews in order to look at patterns among the highest and the lowest scoring schools (Table 3).
2. For the second criteria, the ten highest and the ten lowest scoring schools of all subjects from the same ERG were selected for interviews for the purpose of looking for patterns among the highest and lowest scoring schools in the same ERG (Table 4).
3. Additionally, the highest and lowest scoring schools in each ERG that had not been included thus far using criteria 1 and 2 were selected for interviews for the purpose of ensuring that all ERGs were represented in the interview portion of the study (Table 5).

In the ten highest scoring schools, five out of the nine ERGs were represented; and in the ten lowest scoring schools, seven out of the nine ERGs were represented. A further investigation of the data indicated that all nine ERGs were represented in the 25

Table 3: Five highest and five lowest scoring schools selected for interviews.

Subject #	Rank #	ERG	SII	SD for SII	TEVAL for SII	Total
173	1	9	3.77	4.78	4.00	12.55
98	2	4	2.48	5.00	5.00	12.48
28	3	8	3.25	3.73	5.00	11.97
110	4	7	2.35	4.52	5.00	11.87
133	5	3	3.52	4.32	4.00	11.83
69	139	3	1.67	1.25	1.75	4.67
93	138	1	2.16	2.14	1.00	5.30
153	137	8	1.81	2.76	1.00	5.57
166	136	6	2.15	2.01	1.50	5.66
79	135	8	2.03	3.18	1.00	6.21

Table 4: Ten highest and ten lowest scoring schools from the same ERG selected for interviews.

Subject #	Rank #	ERG	SII	SD for SII	TEVAL for SII	Total
41	6	7	2.62	4.19	5.00	11.80
38	7	8	2.78	3.99	5.00	11.59
109	8	4	2.41	4.18	5.00	11.59
76	9	8	2.73	3.74	5.00	11.47
51	134	2	2.53	2.79	1.00	6.32
44	133	6	2.57	2.84	1.00	6.41
113	132	8	2.02	2.96	1.50	6.48

Table 5: Highest and lowest scoring schools selected for interviews.

Subject #	Rank #	ERG	SII	SD for SII	TEVAL for SII	Total
176	10	1	2.72	4.78	3.75	11.25
88	11	6	3.59	4.52	3.00	11.11
100	12	2	4.39	3.32	3.00	10.71
103	25	5	3.22	3.94	2.75	9.91
1	131	8	2.13	3.10	1.25	6.48
135	130	7	2.40	2.95	1.25	6.60
112	129	5	2.60	3.04	1.00	6.64
102	123	4	2.21	3.26	1.50	6.97

Table 6: Summary table of all subjects organized by ERG selected as the sub-sample from the survey responses for follow up interviews.

ERG	Rank #	SII	SD for SII	TEVAL for SII	Total
ERG A					
• #177	11	2.72	4.78	3.75	11.25
• # 93	111	2.16	2.14	1.00	5.30
ERG B					
• #100	16	4.39	3.32	3.00	10.71
• # 51	105	2.53	2.79	1.00	6.32
ERG C					
• #133	6	3.52	4.32	4.00	11.84
• # 69	112	1.67	1.25	1.75	4.67
ERG D					
• # 98	2	2.48	5.00	5.00	12.48
• #109	9	2.41	4.18	5.00	11.59
• #102	94	2.21	3.26	1.50	6.98
ERG E					
• #103	25	3.59	4.52	3.00	11.11
• #112	100	2.15	2.01	1.50	5.66
ERG F					
• # 88	11	3.59	4.52	3.00	11.11
• # 44	104	2.57	2.84	1.00	6.41
• #166	136	2.15	2.01	1.50	5.66
ERG G					
• #110	5	2.35	4.52	5.00	11.87
• # 41	7	2.62	4.19	5.00	11.80
• #135	101	2.40	2.95	1.25	6.60
ERG H					
• # 28	3	3.25	3.73	5.00	11.97
• # 38	8	2.78	3.99	5.00	11.77
• # 76	10	2.73	3.74	5.00	11.47
• #113	103	2.02	2.96	1.50	6.47
• # 79	106	2.03	3.18	1.00	6.21
ERG I					
• #173	1	3.77	4.78	4.00	12.55
• #153	137	1.81	2.76	1.00	5.57

highest scoring schools, and all nine ERGs were represented in the 20 lowest scoring schools. In summation, Table 6 displays all the subjects by ERG that were selected as the

sub-sample from the survey responses for follow up interviews along with their rank and their survey scores.

A semi-structured interview protocol (Appendix C) was pre-tested and then used to probe more deeply into the survey responses of those high school principals who fit the interview criteria. Of the 26 principals selected, one refused to be interviewed. The preliminary patterns or properties from the open-ended responses in the survey were then used to develop the conceptual themes in the interview data. The researcher then looked for co-occurring or overlapping elements within data segments to discover the places where categories intersect and to redefine the patterns or properties, add new ones (or discard others as the case may be) until the concepts seemed to sufficiently fit the data (Miles & Huberman, 1994, Strauss, 1987). Finally this process of open coding analyzed the data line by line for "empirical indicators" consisting of "behavioral actions and events" described in the survey's open-ended responses and in the words of the interviewees (Tesch, 1990) for the purpose of determining not only what is, but also why it is. All data were analyzed for the purpose of determining if clusters of schools have responded to the CAPT in the same manner.

A semi-structured interview protocol was also developed for district superintendents of the high schools selected for interviews. Attempts to interview superintendents in these respective districts were not as successful. Since the original research design did not include the superintendents in the survey, they did not have the prior knowledge to respond to the interview protocol. In a number of cases, the superintendent referred the researcher to the high school principal in the district for specific answers to the protocol questions. As a result, the researcher decided not to

interview the superintendents, bur rather to add the following question to the interview protocol for high school principals:

> "In what ways, if any, do the district leaders support or hinder your efforts to link school improvement initiatives with staff development support and teacher evaluation processes?"

A total of 25 interviews (one subject from the selected sample refused to be interviewed) were conducted over the course of four months from October 1999 through January 2000. Confidentiality was guaranteed in the survey letters and reiterated prior to each interview. In addition, permission to audiotape was also requested at the outset of each interview with assurances that the recorder could be turned off at any time.

Limitations: Both quantitative and qualitative data collection techniques were used to gather observations and to ensure that the theories of this study were tested in more than one way (Duffy, 1984). The quantitative data of the survey and the qualitative responses in the open-ended portion of the survey were used to form an objective view of the data which were in turn used to gather a firsthand perspective in the follow-up, in-person interviews. The quantitative accumulation of information from the survey uncovered the specific variables of the study, while the qualitative data from the interviews gave a more holistic view of the reality (Duffy, 1984). This method of triangulation of data collection was used to gain a deeper understanding of the study and to maximize its validity (Goodwin & Goodwin, 1984; Mitchell, 1986).

With respect to discriminative validity, the rating scale and the survey questions were refined based on the feedback received in the pilot study. In addition, Likert-scale items on the survey were piloted with one high school principal from each of the five

most advantaged ERGs and one high school principal from each of the five most disadvantaged ERGs. As part of the pilot, participants were asked to comment on their interpretations of the rating scale and to describe any questions/problems they had in responding to the survey. The rating scale was revised based on the pilot input to ensure the discriminative validity.

Findings are not generalizable to other states, because systems vary from state to state, and because other states may not categorize schools according to ERGs. This study would have to be replicated in other states before generalizations beyond Connecticut could be made.

CHAPTER 3

RESULTS

This chapter will outline the results of the survey questionnaire and will use the qualitative responses from the surveys and the follow-up interviews to interpret and elaborate on the results. Table 6 offers a synopsis of the Likert scale responses to Section I in the questionnaire that focused on the School Improvement Initiatives implemented in response to the CAPT. In answer to research question #1, *What kinds of school improvement initiatives are school district leaders in Connecticut developing in an effort to improve student achievement on the CAPT*, the percent presently being considered (see Table 7, Column C) was added to the percent in place since the CAPT (see Table 7, Column G) to determine those items whose implementation could be linked to the implementation of the CAPT. To determine those items that might not be linked to the implementation of the CAPT, the total percent not in place (see Table 7, Column B) the total percent presently in process (see Table 7, Column D), and the percent in place before the CAPT (see Table 7, Column F) were added together (see Table 7, Column H).

School Improvement Initiatives (Research Question #1): Overall, according to the survey results, curriculum standards were the most pervasive of the school improvement initiatives implemented in response to the CAPT, with the use of performance assessment tools being the second most pervasive and teacher teams, changes in school day/year and changes in school schedule being third, fourth and fifth respectively. School district leaders acknowledged in the survey and confirmed in the follow-up interviews that after five years of CAPT testing, they had moved from writing

Table 7: Quantitative responses to Section I of the questionnaire about school improvement initiatives implemented in response to the CAPT. (Research Question #1)

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Likert Scale	(1)	(2)	(3)	(4)	(5)	(2) + (4)	(1)+((3)+(5)
School Improvement Initiatives	% Not in place	**% Presently being consid-ered**	% Presently in process	**% In place since CAPT**	% In place before CAPT	**Total % being considered or in process since the CAPT**	Total not in place, presently in process, in place before CAPT
1. Standards							
• Language Arts	1.8	**3.5**	21.9	**57.0**	15.8	**60.5**	39.5
• Math	1.7	**4.4**	23.7	**57.9**	12.3	**62.3**	37.7
• Science	1.7	**5.3**	30.7	**53.5**	12.3	**58.8**	44.7
• Social Studies	22.8	**2.6**	22.8	**43.0**	8.8	**45.6**	45.6
2. Assessment Tools							
• Holistic scoring	5.3	**7.1**	25.7	**39.8**	22.1	**46.9**	53.1
• Rubrics	8.8	**6.1**	23.7	**43.0**	18.4	**49.1**	50.9
• Performance assessments	5.2	**7.0**	38.6	**24.6**	24.6	**31.6**	68.4
• Portfolios	12.3	**24.6**	23.7	**21.9**	17.5	**46.5**	53.5
• Expositions	8.9	**19.3**	25.4	**9.6**	36.8	**28.9**	71.1
• Dept. exams	34.2	**7.9**	10.5	**7.0**	40.4	**14.9**	85.1
3. Teacher Teams							
• Interdisciplinary	24.6	**6.1**	18.4	**19.3**	31.6	**25.4**	74.6
• Grade level	56.1	**4.4**	7.9	**8.8**	22.8	**13.2**	86.8
• Cross graded	73.7	**5.3**	7.0	**3.5**	10.5	**8.8**	91.2
• Theme grouped	70.3	**6.1**	10.5	**3.5**	9.6	**9.6**	90.4
• Academies	71.9	**4.4**	8.8	**7.0**	7.9	**11.4**	88.6
• Advisory time	66.6	**8.8**	5.3	**7.9**	11.4	**16.7**	83.3
• Common plan time	36.8	**8.8**	14.9	**12.3**	27.2	**21.1**	86.1
4. Change school year/day							
• Longer student day	46.5	**9.6**	7.0	**23.7**	13.2	**33.3**	66.7
• Longer student year	63.2	**11.4**	2.6	**10.5**	12.3	**21.9**	78.1
• Longer teacher day	51.8	**7.0**	7.8	**21.1**	12.3	**28.1**	71.9
• Longer teacher year	47.3	**8.8**	5.3	**14.9**	23.7	**23.7**	76.3
5. Change school schedule							
• 4x4 semester	85.1	**7.9**	2.6	**2.6**	2.6	**10.5**	90.3
• 4x4 hybrid	84.2	**7.9**	2.6	**3.5**	1.8	**11.4**	88.6
• Alternating day/8 block	75.4	**7.0**	3.5	**9.6**	4.5	**16.6**	83.4
• Trimester	88.5	**5.3**	3.5	**0.9**	1.9	**6.2**	93.9

N = 114

and revising curriculum standards to learning how to use CAPT-like performance assessments. Moreover, these leaders agreed that the biggest challenges were finding the extended time for staff development as well as creating some sense of importance around CAPT results similar to the value that staff, students and parents place on SAT scores.

Curriculum standards: The revision and implementation of curriculum standards aligned with CAPT objectives, particularly in the four core subject areas of English, mathematics, science and social studies, were the most significant school improvement initiative developed in response to the CAPT (57%). In those schools that had standards in place before the CAPT, efforts were being made to revise them for the purpose of aligning them with the new CAPT objectives. Language Arts and mathematics received the most attention, with writing across the curriculum as another strong common focus. Within the standards category, mathematics had the highest percent in place since the CAPT (57.9%) with language arts (57.0%), science (53.5%) and social studies (43.0%) following in second, third and fourth place respectively (see Table 7, #1).

Qualitative survey responses confirmed the very definite focus on curriculum standards in response to the CAPT, particularly in reading, writing across the curriculum and science. A number of interviewees discussed their concerted efforts to infuse writing into math and science since the CAPT requires students to not only calculate their responses but also to explain in writing how they arrived at their answers.

In the interviews with principals, a standards theme was echoed throughout, with a strong emphasis on the CAPT having provided the need for better curriculum articulation and alignment across grades. Recognizing that the CAPT is really a K-12 assessment, principals across the ERGs reported that the CAPT created the platform for

looking at curriculum as a 4, 6, 8, and 10 continuum with a focus on aligning the "written curriculum" with the "taught curriculum" and with the "tested curriculum." While all the respondents talked about more articulation with their middle schools, one school, that had recently changed to a 7-12 grade configuration, saw the reorganization as an extra added catalyst for aligning middle and high school curriculum standards with the CAPT. While all the data collected for this study showed that revising curriculum standards was a very strong response to the CAPT, it was also clear that this was by no means an easy task. One principal said that integrating the CAPT into lesson plans and curriculum needs to be more of a "parallel development" and not just an "oops, I have to get this CAPT thing into my plan." Another principal talked about how difficult it was to convince high school teachers, who "own curriculum heart and soul," that teaching to the CAPT meant "good instruction." He described how his staff did hours of research so that they could show their staff how the CAPT reflects "good teaching strategies" in the hopes that their teachers would be willing to make changes in their classroom lessons.

Performance Assessment Tools: With respect to assessment tools, the use of rubrics had the highest percent in place since the CAPT at 43.0% (see Table 7, #2) with holistic scoring second highest in place since the CAPT at 39.8%. Principals undoubtedly agreed that there was a strong need to learn more about the open-ended assessment tools that are used on the CAPT and to show teachers how to incorporate them into their own teaching and learning strategies. A number of them talked about how they were emphasizing teaching students to not only write persuasively but also to take a critical stance and defend it in their writing as a means of better preparing them for the interdisciplinary portion of the CAPT. While the focus on the use of performance

assessment tools varied from school to school and from department to department, there did appear to be an overall effort across the state to work with rubrics, holistic scoring, and student portfolios since the CAPT was introduced. Moreover, the State and the Regional Service Centers have supported these efforts in the form of funding and resources for staff development on how to integrate the use of these performance assessment tools into the various curricular areas.

Teacher-Student Teams: While the data indicated that teacher-student teams have not been a common response to the CAPT (see Table 7, #3), principals acknowledged that teaming does allow teachers to focus more on the needs of smaller, individual groups of students. The larger high schools, that used the interdisciplinary team approach before the CAPT to break down the large comprehensive high school into smaller, more personalized learning communities, found that teaming gave them the venue to focus on CAPT strategies with a concentrated group of students across curriculum areas.

The most prevalent roadblock to teaming appeared to be arranging for common planning time in a comprehensive high school schedule. In addition, advisory time, which is essential to the concept of teaming, was also very difficult to schedule. Principals reported that teaming is much more common in middle schools where the schedule is built on the team approach. Those schools that were able to arrange for teacher/student teams included other staff members, such as counselors, vice principals and reading teachers on the teams. They not only scheduled common planning time for their teams, but also scheduled large blocks of common instructional time that allowed for the extensive and intensive concentration on the use of performance assessment tools.

Change in School Day/Year: While the survey indicated there were changes in the school day and/or year (see Table 7, #4) that could be considered in response to the CAPT, the principals indicated these were not so much attributable to the CAPT, but more in general to the overall need for more instructional time. Since 1995, a number of districts in Connecticut have begun to address the issue of time and have been gradually lengthening the teachers' workday as well as lengthening the student school year (Connecticut Academy for Education, 2000).

Change in Schedule: Changes in the school schedule was the least prevalent of the school improvement initiatives indicated in the survey (see Table 7, #5). Of those schools that did change their schedules, the alternating block was the most popular change at 16.6%. With respect to block scheduling, while a number of principals indicated they were researching and/or piloting and/or implementing block scheduling, they all reported these efforts to change the school schedule were not in response to the CAPT, but rather in response to creating more instructional time focused on classroom activities and strategies that demand more than the traditional 45-minute class period. One principal commented on how block scheduling that started in his school in 1992 does allow them to "integrate more CAPT-type experiences when there is an hour and a half block of time on a weekly basis." Another principal reported that his school was considering the addition of a science-like "lab period" for each of the core subject areas on a weekly rotation basis, so that every subject area would have the opportunity to do more extensive performance-based projects.

In summary of the responses to research question #1, the results of this study indicated that the focus on developing and/or revising curriculum standards and the focus

on learning how to use performance assessment tools were the primary the kinds of school improvement initiatives that were being implemented in response to the CAPT. While creating teacher-student teams was a school improvement initiative being implemented in response to the CAPT, this study found that it was much less common because of scheduling conflicts. With respect to time, while changes in the school day and/or year, or schedule, were not being implemented in direct response to the CAPT, they certainly supported those CAPT initiatives that require not only more time but also longer blocks of classroom time to be effectively implemented.

School Improvement Initiatives Linked to Staff Development Research (Question #2): In response to research question #2, *In what ways, if any, are school district leaders in Connecticut linking school improvement initiatives with staff development for the purpose of improving student achievement on the CAPT,* the results of this study indicated that overall staff development supports focused more specifically on school improvement initiatives that are generally related to the CAPT and more specifically related to the performance-based teaching and learning strategies that the CAPT represents (see Table 8, #1).

Staff Development for Teaching Strategies: While staff development supports for a number of the teaching strategies listed in the survey were in place before the CAPT, the survey showed a greater emphasis on training in performance-based testing techniques at 29.2% (see Table 8, #1, Column G) which include holistic scoring and rubrics since the introduction of the CAPT. In addition, the survey results showed a focus on staff development support for interdisciplinary teaming at 28.9% and in cooperative learning at 25.4% (see Table 8, #1, Column G). Principals affirmed these findings in their

Table 8: Quantitative responses to Section II of the questionnaire about linking school improvement initiatives with staff development to improve student achievement. (Research Question #2)

Column A	Col-umn B	Column C	Column D	Column E	Column F	Column G	Column H
Likert Scale	(1)	(2)	(3)	(4)	(5)	(2)=(4)	(2)+(3)+(5)
Staff Development Supports For School Improvement Initiatives	% Not in place	% Present-ly being consid-ered	% Present-ly in process	% In place since CAPT	% In place before CAPT	Total % being considered or in process since the CAPT	Total not in place, presently in process, in place before CAPT
1. SD for Teaching Strategies							
• Thematic instruction	32.5	11.4	12.3	9.6	34.2	21.0	79.0
○ Differentiated instruction	28.1	7.0	14.9	12.3	37.7	19.3	80.7
• Interdisciplinary teaming	20.2	14.9	19.3	14.0	31.6	28.9	71.1
• Constructivist T & L	47.4	12.3	14.9	7.9	17.5	20.2	79.8
• Heterogeneous grouping	33.3	11.4	10.5	9.6	35.2	21.0	79.0
• Cooperative learning	8.0	3.5	14.0	21.9	52.6	25.4	74.6
• Performance-based testing	19.5	5.3	23.0	23.9	28.3	29.2	70.8
2. Scheduling Staff Development							
• During school day	29.8	1.8	6.1	14.0	48.3	15.8	84.2
• After school day	21.9	0.9	10.5	9.6	57.1	10.5	89.5
• When school ends	54.4	1.8	5.3	5.3	33.2	7.1	92.9
• When school begins	14.0	0.0	8.8	15.8	61.4	15.8	84.2
• On contractual time	6.1	0.0	5.3	12.3	78.1	12.3	89.5
• On site	17.6	0.0	6.1	11.4	64.9	11.4	88.6
• Off site	53.5	0.0	5.3	4.4	36.8	4.4	95.6
Length of Staff Development							
• 1 hour	53.5	0.0	5.3	4.4	36.8	4.4	95.6
• ½ day	25.4	0.0	7.0	7.0	60.6	7.0	93.0
• Full day	8.8	0.0	6.1	10.5	74.6	10.5	89.5
• 2 to 3 days	56.1	0.9	4.4	5.3	33.3	6.2	93.8
• 1 week	83.2	0.9	1.8	1.8	12.3	2.7	97.3
4. Frequency/Staff Development							
• Weekly	81.6	3.5	1.8	4.4	8.7	7.9	92.1
• Monthly	62.3	3.5	5.3	6.1	22.8	9.6	90.4
• Quarterly	55.3	0.0	10.5	7.9	26.3	7.9	92.1
• 1 x year	70.2	0.0	4.4	1.8	23.6	1.8	98.2
• 2 x year	57.9	0.0	7.0	7.0	28.1	7.0	93.0
5. SD Presenters							
• Teachers	4.4	0.0	10.5	15.8	69.3	15.9	84.2
• Administrators	10.5	0.0	8.8	11.4	69.3	11.4	88.6
• District personnel	11.4	0.0	7.0	11.4	70.2	11.4	88.6
• Consultants	5.3	0.0	8.8	13.2	72.7	13.2	86.8
• Staff from other districts	15.9	0.0	9.6	9.6	64.9	9.6	90.4
6. SD Designers							
• Staff members	3.5	0.9	11.4	14.0	70.2	14.9	85.1
• District personnel	12.3	0.0	6.1	11.4	70.2	11.4	88.6
• Consultants	16.7	0.9	7.0	14.9	60.5	14.9	84.2
• Staff from other districts	31.6	2.6	7.0	8.8	50.0	11.4	88.6

N = 114

interviews by commenting that although teaming in its purest sense was not possible in many cases, much more sharing and cooperation among staff and students across the subject areas was happening in response to the CAPT.

Moreover, principals reported that professional development was "more significant" and "more aggressive" in its quest to show teachers how to help students improve on the CAPT. One principal described a kind of staff development transition in his school from "this too shall pass" to "this too shall not pass, so what are we going to do about it?" The key word, as he put it, was "we", suggesting a the move to a more collegial approach to facing the issue. A common staff development practice among the schools interviewed was to give a practice CAPT test to 9th and 10th graders and then to train teachers to work in groups to score the tests using the same inter-rater reliability guidelines that are used by the CAPT scorers. This kind of staff development gave teachers a firsthand opportunity to see how their students were responding to the CAPT-like assessment format and where their students were not meeting the scoring standards of the CAPT.

Scheduling of Staff Development: While the schools in this study had various strategies for providing staff development days, the more common time for staff development was at the beginning of the school year (15.8%) and during contractual time throughout the school year (12.3%) (see Table 8, #2, Column G). Principals reported that this approach ensured that all teachers received the required training at the designated time. Principals who were interviewed confirmed they preferred scheduling intensive staff development at the beginning of the school year, with regularly scheduled follow-ups during the year on early dismissal or late arrival days. They also talked about wanting

to send more teachers out to conferences and workshops, but added that finding substitute teachers was a major problem nationally as well as for all school systems in Connecticut.

Length of Staff Development: The survey results indicated a change in the length of staff development sessions to increased numbers of full-day (10.5%) and half-day (7.0%) sessions as opposed to the one-hour, "drive-by" format (see Table 8, #3). Principals noted that, just as integrating performance assessment strategies into classroom instruction takes more time, so too does adequate staff development that trains teachers in how to use these strategies to improve student performance.

A number of interviewees, particularly from the smaller districts, also discussed participating in more all-day, regionalized staff development sessions with neighboring districts sponsored by the Regional Educational Service Centers (RESCs) and focused on CAPT strategies. In addition, these principals noted that collaborative learning opportunities such as these, along with increased encouragement to attend conferences, workshops and graduate classes outside of school all contributed to linking CAPT school improvement initiatives to staff development.

Frequency of Staff Development: In terms of frequency of staff development, survey responses indicated a focus on monthly (9.6%), quarterly (7.9%) and weekly (7.9%) sessions (See Table 8, #4, Column G). Further probing during the interviews indicated a move to full day staff development before the beginning of school with regularly scheduled monthly early release days, as well as the use of weekly staff meeting time.

Professional Development Presenters and Designers: With respect to presenters and designers of staff development, the survey results indicated that using teachers

(15.9%), administrators (11.4%) and other district personnel (11.4%) were preferred to using outside consultants (see Table 8, #5 and 6, Column G). While consultants were used, principals reported that the train-the-trainer model was the preferred since it prepared in-house, on-site teacher experts who could train their colleagues and continue to work on building capacity in their school.

In summary of the findings for research question #2, responses indicated that not only are staff development supports being linked to school improvement initiatives in response to the CAPT, but also more extended and frequent time is being dedicated to build the overall in-house training capacity of schools as well as to staff develop individual teachers.

School Improvement Initiatives Linked to Teacher Evaluation Processes (Research Question #3): In response to research question #3, *In what ways, if any, are school district leaders in Connecticut linking school improvement initiatives to teacher evaluation processes for the purpose of improving student achievement on the CAPT*, the survey results showed that these kinds of linkages were for the most part slow to take hold. Principals reported that they had to make their own connections within their existing district structures for setting goals and objectives for improved student achievement. More importantly, principals expressed that they had difficulty getting staff members, students and parents alike motivated to work on improving CAPT results because of the lack of both intrinsic and extrinsic incentives for the test.

Survey results did indicate some efforts were being made to link school improvement initiatives to teacher evaluation initiatives (20.2%) (See Table 9, #1, Column G). In the interviews, a number of principals explained how their districts were

Table 9. Quantitative responses to Section III of the questionnaire about linking school improvement initiatives with teacher evaluation processes and staff development to improve student achievement.(Research Questions #3 and #4)

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Likert Scale	(1)	(2)	(3)	(4)	(5)	(2)+(4)	(1)+(3)+(5)
Teacher Evaluation Processes	% Not in place	% Presently being considered	% Presently in process	% In place since CAPT	% In place before CAPT	Total % being considered or in process since the CAPT	Total % not in place, presently in process, in place before CAPT
1. Teacher Evaluation linked to School Improvement Initiatives	30.7	7.9	19.3	12.3	29.8	20.2	79.8
2. Incentives linked to School Improvement Initiatives	64.2	9.6	7.1	9.6	9.6	19.2	80.9
3. Teacher Evaluation linked to Staff Development	29.8	7.9	14.9	13.2	34.2	21.1	78.9
4. Incentives linked to Staff Development	67.5	7.9	5.3	6.1	13.2	14.0	86.0

N = 114

developing new teacher evaluation plans in response to a 1999-00 state mandate for all districts to update their teacher evaluation plans to align with the new State Guidelines for Teacher Evaluation and Professional Development (CSDE, 1999). Respondents indicated that attempts were being made with these new plans to develop "more systematic approaches" to connecting teacher evaluation with school improvement initiatives as well as with staff development. Principals also indicated that they were

anxious for their new and/or updated teacher evaluation plans to make these connections between teacher evaluation and school improvement initiatives more formal.

In the meantime, while most respondents indicated that there was no formal link between teacher evaluation and school improvement initiatives, the annual goals and objectives setting process for continuous school improvement appeared to be the most common way in which these linkages can and are being made. Principals talked about "teacher job targets shaped around school improvement initiatives." Another principal discussed how "teacher evaluation is being linked to observations and improved student learning" in his school. Two of the principals explained how they require CAPT objectives to be embedded in lesson plans that they observe in the classroom, while another one reported collecting student writing samples and classroom tests to see how many higher order questions were being asked. Another principal showed how she was using a consultant to work with the department heads who do observations to teach them how to make recommendations that target CAPT objectives, while still another principal reported that next year one of the classroom teachers' goals for the year will have to be tied to a school improvement strategy. Thus, while this study did not indicate much of an emphasis on formalized, written and approved policies for connecting teacher evaluation with school improvement initiatives, principals in the study did report that they were embedding these connections into their existing annual processes and structures for setting school goals as well as teacher objectives.

Incentives Linked to School Improvement Initiatives: In the survey results, only 19.2% reported considering or in the process of considering linking incentives to school improvement initiatives (Table 9, #2, Column G). While all principals agreed there are

very few, if any, "official" incentives for school improvement initiatives, they did report that their district's system of setting goals and objectives each year created a kind of built-in incentive, particularly in the higher achieving districts where there are, as one principal noted, an "inbred kinds of competition." Principals described the most common practice for goal setting that starts with the school board and superintendent who create goals for the district for the year. Principals reported how they, in turn, adapt, modify and adjust these goals for their school improvement initiatives, and how teachers follow suit to adapt the school goals and objectives to fit the needs of their classrooms. One principal gave the example of how his district wanted to improve student achievement in writing as measured by the CAPT. He made writing one of his main goals for the year and then had each of his four core subject area teachers in grades 9 and 10 incorporate CAPT writing strategies into their classroom objectives for the year.

Most of the incentives discussed in the interviews, however, were "unofficial" with the overwhelming majority of principals agreeing that "the CAPT has no meat." In one case, a principal reported that curriculum stipends were being given to teachers for effective strategies, while another talked about encouraging teachers to make state and regional conference presentations on effective strategies. One principal mentioned that maintaining job-contractual salaries could be considered an unofficial incentive, but agreed that there were neither intrinsic nor extrinsic incentives to improve CAPT scores for teachers, students or parents for that matter.

With respect to student incentives, from the interviews, it did appear that principals were making a number of efforts in this area. From breakfasts to pre- and post-dinners, to pep rally-like assemblies and T-shirts, principals described how difficult it

was to convince students and parents that meeting the state goal in all four sections of the CAPT was important. But all of the principals interviewed agreed that it was extremely difficult to bring any kind of competitive spirit around meeting CAPT goals since the SAT is still considered the gatekeeper to college, particularly because even the state colleges are not using the CAPT results for any of their admissions criteria. With respect to business support, the principals interviewed said that some of their local corporate partnerships financially supported their CAPT incentives efforts for various activities, but they did not know of any company to date that includes CAPT scores as a job application criteria.

Teacher Evaluation Processes Linked to Staff Development (Research Question No. 4): Survey results on teacher evaluation linked to staff development being considered or in process were also low at 21.1% (See Table 9, #3, Colum G). A number of principals discussed how staff development is designed in their schools to help teachers achieve their goals. In some cases, principals described how teachers are being required to link at least one objective in their teacher evaluation plan to an area in which staff development is being provided. In addition, interviewees reported that district and school goals are set based on new initiatives that were started through staff development. Moreover, some principals indicated that teachers who receive unsatisfactory ratings must participate in staff development as a means of improving their practice. Others discussed how objectives in evaluation plans often become the basis for establishing the need for specific staff development activities.

Thus, the majority of the principals interviewed agreed that they could make the link between teacher evaluation and staff development focused on improving student

achievement as it relates to the CAPT. They also indicated that the could require teachers to show how they are implementing these new strategies in their classroom observations. However, most of the principals interviewed said that, while they were finding ways to make these connections, they were hoping for their new and/or revised teacher evaluation plans to give them the "official policy" support they need to make these links solid and dependable.

Incentives linked to Staff Development: In the survey results, incentives linked to staff development were also low at 14.0% (See Table 9, #4, Column G). The question then becomes do teachers have to participate in prescribed staff development. As indicated earlier, the more recent major focus is to schedule staff development during contractual time, thus requiring everyone to participate. However, as also mentioned earlier, finding time, particularly large blocks of time, is still a challenge. Principals acknowledged that in Connecticut, as well as in other states, there is a built-in incentive for staff development in the state's Continuing Education Units (CEUs) Program that is tied to certification. Each teacher needs to accumulate 90 hours of staff development every five years to keep his/her certification current. In addition, two years ago the State prescribed a specific number of hours in areas of special need such as literacy, technology and bilingual education. Moreover, Connecticut districts must make available, annually, at no cost, a minimum of eighteen hours of staff development for certified employees. As one principal put it, the State has created staff development incentives "for teachers to take and for districts to give."

In addition to the state incentive for CEUs, various other means are employed to motivate teachers to participate in staff development. One principal described how each

teacher in his school gets $200 to $250 per year for staff development, while another discussed the use of staff appreciation luncheons and gift certificates as incentives for staff development. In summary to research question #4, while linkages are being made between teacher evaluation and staff development processes, they appear to be focused on the individual principal's ability to embed them into the established goals and objective setting processes that exist in the districts. With respect to incentives, there was overwhelming support among the principals interviewed for them to come externally from the colleges and the business community in the form of recognizing the importance of reaching the state goal on the CAPT test.

Integrating School Improvement Initiatives, Staff Development and Teacher Evaluation Processes (Research Question #5): More specifically, with respect to *school district leaders in Connecticut integrating their school improvement initiatives with staff development and teacher evaluation processes for the purpose of improving student achievement on the CAPT*, the data collected for this study in both the surveys and the interviews indicate a conscious effort to make these linkages in response to the CAPT. As reported previously, principals are working with their staff on specifically designed staff development that addresses CAPT-like school improvement initiatives, and are requiring teachers to incorporate these newly learned initiatives into the goals and objectives of their classroom observations and their annual evaluations. Principals described a number of techniques that they were using to get to this kind of interconnectedness from requiring CAPT action plans by discipline to using measurable and observable CAPT objectives for teacher evaluation. One principal commented on how he was adapting some of the evaluation techniques that are required for new teachers in Connecticut because he found

that "veteran teachers could learn from the way new teachers are expected to perform" in order to become certified. Another principal reported that she spends "so much time in classrooms and looking at lesson plans for CAPT integration," that the teachers do not always know if they are formally being observed.

Patterns among schools when grouped by ERGs (Research Question #6): In response to research question #6, *What patterns exist, if any, among schools in the implementation and/or integration of school improvement initiatives, staff development and teacher evaluation when grouped by ERG*, the data gathered in this study indicated a number of patterns existed among Educational Reference Groups with similar socioeconomic status, as well as a number of patterns that were similar to all the ERGs, regardless of socioeconomic status. While each educational reference group of school districts is individually categorized by income, education, occupation, poverty, family structure, home language and district enrollment, some reference groups are more similar to each other and are more often grouped together for comparison purposes.

ERG A and B: Although ERG A has a significantly higher medium family income, percent of bachelor degrees and percent of managerial/professional occupations than ERG B, they are much more similar in terms of poverty, family structure and home language. Principals interviewed from both of these groups of schools indicated that the CAPT was not a driving force because many of the CAPT-like school improvement initiatives were in place before the test was implemented. They agreed that the SAT and AP tests carried more weight for their predominantly college-bound student populations, but also acknowledged that the CAPT had an impact on content area curriculum development. While principals from ERG A and B bemoaned the fact that the CAPT was

a "hard sell," "no stakes" test, they did agree that the inbred competitive nature of their communities was a self-motivating factor for teachers, students and parents alike.

Some principals in these two ERGs questioned the validity of CAPT scoring, because some of their high achieving students were not successful on the CAPT. In addition, they cited professional development to improve CAPT scores as a school improvement initiative in these schools, but also noted a "more professional culture of learning" among staff who "want to make themselves better teachers."

ERG C and D: Results of this study indicated that ERG C and D are not only similar with respect to socioeconomics, but also with respect to their implementation and/or integration of school improvement initiatives, staff development and teacher evaluation in response to the CAPT. All principals interviewed in these districts agreed that the CAPT was a definite driving force for linking CAPT school improvement initiatives with staff development and with teacher evaluation processes. In both groups of schools, the principals who were interviewed indicated that while their school boards consider the CAPT "a measure of school quality," there were still some students who did not meet the CAPT writing goal but scored 600 on the SAT I. School improvement initiatives were being driven by strategic plans that include CAPT goals. Finally, these principals agreed that the greatest impact has been on aligning curriculum standards to the learning objectives in the CAPT.

ERG E: In ERG E where districts are smaller with lower median family income, education level and percentage in managerial or professional occupations, principals agreed that the CAPT is a driving force and noted that school improvement initiatives, staff development and teacher evaluation processes are very definitely being linked in

response to the CAPT. However, the bigger issue in this ERG had to do with the small size of the schools in this group. As one principal stated, "If just a few kids blow off the test, it is very detrimental to the overall school score." Principals in this ERG also expressed their hope that the State Board of Education would take a stronger stand on the importance of the CAPT test, and that colleges and businesses would become more supportive of the test.

ERG F and G: While the medium family income, education level and percent in managerial or professional occupations in ERG F are significantly higher than ERG G, the percentage of single-parent families and the percentage of children receiving AFDC are similar. Principals in ERG F and G in this study varied in their assessment of how the CAPT was driving school improvement initiatives, staff development and teacher evaluation processes. They seemed to agree that the CAPT had a definite impact on restructuring the science, mathematics and English curricula. One of them called the CAPT "a report card" that is driving curriculum change, while another called it an "unfortunate fad." Another principal talked about how their initiatives were "coincidental" to the CAPT and that it was not a main focus, while still another said that "what the CAPT has done for instruction could not have taken place so quickly or so dramatically in 32 years." Despite these varying opinions, principals interviewed in these ERGs credited the CAPT with heightening awareness for the need to improve teaching and learning.

ERG H is unique in that it represents the "two Connecticuts," (Tirozzi, 1990?) that is, it encompases some of the State's highest paid executives as well as some of its poorest residents. One superintendent from ERG H often described the extremes of his

student body as including "kids that drive to school in their BMWs as well as kids who sleep in the streets" (Nast, 1999). Principals from ERG H interviewed for this study agreed that not only was the CAPT driving reform in their schools, but it was also the basis for staff development and for teacher evaluation processes. They talked about the need to "focus in on the needs of kids" in their typically larger high schools and to ensure that all students received the same CAPT preparation within their very broad array of leveled courses. With respect to professional development, one principal talked about how he manipulated the master schedule "to slim the field" of courses that teachers teach, so that they could focus in on the CAPT objectives that were embedded in the 10th grade initiatives.

With respect to teacher evaluation processes, one principal in ERG H explained how their teacher/administrator performance goals had been set to increase their CAPT scores from three to five percent each year. He went on to explain how he was able to get funding for scholarships for students who reached goal in all four areas of the CAPT by junior or senior year, and how he hoped the Connecticut universities would institute a reduced tuition plan for students who passed all sections of the test. He also wanted businesses to stop hiring students who fail all four areas of the CAPT, and thought that students should get two diplomas, the usual academic one for class rank, and a performance-based diploma based on CAPT and other classroom assessments.

ERG I: This Education Reference Group includes Connecticut's poorest cities with the lowest SES levels and the highest need levels of all groups. Principals interviewed from ERG I also agreed that the CAPT was a "true catalyst" or driving force for the integration of school improvement initiatives, staff development and teacher

evaluation processes. However, they agreed that a number of issues particular to their ERG made their efforts extremely difficult. These included the transient nature of the student population, the high percentage of second language learners, attendance issues and the large impersonal size of the schools in ERG I. Some of the strategies they used to alleviate these problems were focusing staff development on teacher reading strategies, and dividing the schools into smaller units with teams of teachers and students working together in more homogeneous groups. And finally one principal in ERG I talked about the socioeconomic "incidents of understanding" or built-in biases in tests like the CAPT and the SAT that give students from the more affluent ERGs the advantage over their fellow classmates in the high need, low SES urban districts.

Similarities Across ERGs: In addition to the various patterns that existed among schools with similar socioeconomic status, there were a number of patterns emerging from this study that were similar regardless of socioeconomic status. For example, the data from this study across all of the ERGs clearly pointed to curriculum revision as a school improvement initiative in the four core subject areas, with special emphases placed on writing, performance-based science and a more integrated approach to mathematics. Principals also agreed that the CAPT had spearheaded a K-12 curriculum articulation with a deliberate focus on aligning middle and high school course goals and objectives. In addition, staff development was being linked to school improvement initiatives particularly in how to use the CAPT-like performance-based assessment tools of holistic scoring and rubrics. Moreover, the most common manner of linking school improvement initiatives with staff development and teacher evaluation was through the established goals and objectives setting processes that already existed in the schools.

The need to find ways to make CAPT outcomes important to staff, students and parents was echoed throughout the data collected across the educational reference groups. Although there is a sense that the CAPT is a measure of a school quality, it does not yet appear to be a meaningful benchmark for students to achieve, regardless of their educational reference group. Data from this study indicate that parents, colleges and businesses still need to be convinced that the CAPT is a worthwhile and valuable high stakes test. And finally, there was common agreement on the need to create some kind of incentives to passing the CAPT in 11th and/or 12th grades, where schools are finding it particularly difficult to get students to take the test seriously.

In conclusion, Table 10 summarizes the data gathered in response to research question #6 concerning patterns among the ERGs in the implmentation and/or integration of school improvement initiatives, staff development and teacher evaluation.

Table 10: Patterns among Educational Reference Groups with respect to the CAPT being a driving force for linking school improvement initiatives with staff development and teacher evaluation.

ERG	Patterns
A & B	CAPT is not a driving force. SAT is the focus for this most competitive ERG.
C & D	CAPT is a definite driving force and measure of school quality.
E	CAPT is a driving force, with small size of schools a major factor.
F & G	CAPT creates a heightened awareness for improving teaching and learning
H	CAPT is a strong driving force for the "two Connecticuts" ERG
I	CAPT is a catalyst for change
All ERGs	CAPT sparked curriculum revision.
	CAPT instigated curriculum articulation K-12.
	CAPT forced staff development in holistic scoring and the use of rubrics.
	Administrators and teachers are linking CAPT to annual goal/objective setting processes for school improvement.
	CAPT is not yet a meaningful benchmark assessment for students, teachers, parents.
	There is a need for incentives to meet the CAPT goals in all four areas.

CHAPTER 4

SUMMARY, CONCLUSIONS,

AND IMPLICATIONS FOR FUTURE RESEARCH

The purpose of this study was to explore how school district leaders in Connecticut are responding to the Connecticut Academic Performance Test (CAPT) in terms of the kinds of school improvement initiatives they are implementing, how they are integrating them with staff development and teacher evaluation, and if there are similarities and/or differences among schools when grouped by Educational Reference Groups (ERGs). Data were collected through the use of a quantitative survey with some open-ended questions to all comprehensive high school principals in Connecticut, followed by in-person and telephone interviews that probed more deeply into the survey responses.

In general, the results of this study clearly indicate that the CAPT has had an impact, particularly in the areas of curriculum and assessment reform in Connecticut. The CAPT has had the strongest effects in the area of aligning curriculum standards with the CAPT, and in the area of using CAPT-like assessments such as holistic scoring and rubrics. While these results are not surprising, since curriculum and assessment are well within the school/district's domain of control, it is important to note that the impact varied depending on ERGs. Not surprisingly, students in the higher performing districts responded well to these changes in curriculum standards and assessments and, for the most part, performed well on the CAPT, as they do on most high stakes assessments, such as SAT, ACT, NAEP. While initially the open-ended performance based format of the CAPT presented some challenges, it did not take long for most high performing

students statewide to score at or above goal on Connecticut's 10th grade benchmark assessment. As a matter of fact, it appeared as if the attitude toward the CAPT in these districts was one of almost annoyance, because their students had to spend time preparing for the CAPT, when they should be focusing on the SATs and their all-out effort to sell themselves to a highly competitive college.

The feedback was very different in the urban districts with the lower socio-economic profiles. Principals interviewed from these districts appeared to be genuinely concerned about trying to apply a "one size fits all" kind of assessment to their students who come from very different socio-economic backgrounds than their counterparts in the higher performing districts. It was not unusual to hear in the principals' interviews a very negative attitude toward the CAPT test because so many urban students neither have the personal experiences nor the academic preparation to score at the state goal on the CAPT. Respondents did agree that the CAPT was serving as a catalyst to redesign curriculum and assessment to target those skills and competencies that Connecticut's urban high schoolers seem to be lacking. Many special reading and writing programs have been implemented; science and math programs that focus on problem solving have been adopted; before and after-school programs that focus on CAPT skills-building have become part of the regular menu of extracurricular activities. All of these initiatives to improve CAPT scores are topics for future research to determine how effective they have been, and which ones have been more effective than others. Even more importantly, further research is needed to examine more closely how the CAPT has affected the schools in the lower performing ERGs in Connecticut, and whether this "one size fits all" assessment is truly equitable in a state with such extremes of wealth and poverty.

With respect to staff development, the results of this study did show that some meaningful strides have been made in linking staff development to school improvement initiatives. The work of Linda Darling-Hammond's National Commission on Teaching and America's Future (1996) has helped raise the level of awareness for the need for quality teachers nationwide. It did appear from the respondents in this study, that districts in Connecticut were beginning to appropriate more time for staff development as Darling-Hammond recommended. The respondents, however, did indicate that more needs to be done in terms of the delivery systems that embed staff development into everyday teaching and learning in the classroom. This becomes not so much a knowledge issue but a paradigm shift from the drive-by CEU workshop to the conceptual understanding that all members of the professional learning community are constant and continuing learners (Fullan, 2000, Senge, 2000). It demands what Quinn (1996) calls "deep change" which is a much more difficult process that requires new ways of thinking and behaving. It means that the real change has to happen from the inside out, at the core of the school in classroom instruction (Tyack and Cuban, 1995). It requires new ways of thinking about professional development that recognize teacher-to-teacher planning, collaboration, reflection, coaching, inquiry and action research as not only viable but necessary forms of professional development that build the capacity of teachers to come to shared understandings around teaching and student learning (Darling-Hammond and Sykes, 1999).

Finally, from an overall perspective, the results of this study indicate that teacher evaluation has been the least impacted in terms of integration with staff development and school improvement initiatives. Some of the respondents talked about how they tried to

focus on CAPT initiatives in their classroom observations; others discussed how they had attempted to include efforts to improve CAPT scores through their teachers' goals and objective setting processes. But at the time of this study, there did not appear to be any formal structures in place to connect CAPT outcomes with teacher evaluation, staff development or school improvement initiatives. While a fully developed school improvement-planning process should really be a synthesis of individual teachers professional growth and improvement plans aligned with district/school goals focused on improving student achievement (Iwanicki, 1990), the accountability connection with respect to the CAPT appears to be elusive, if not non-existent. This is an area where more research is needed to determine if this is a paradigm problem, or if the overall intent is on keeping these constructs separate rather than integrating them and finding connections.

The results of this investigation included a survey of the 139 comprehensive high school principals in the state as well as in-depth interviews with a sub-sample of 26 of the responding principals. This summary will discuss and analyze the findings with respect to the following points:

- The relationship of the study to the literature review on education reform at the national and state levels;
- How this study contributes to an understanding of the previous literature on school improvement initiatives, staff development and teacher evaluation;
- How the study contributes to our understanding of Iwanicki's Framework;
- The limitations of the study;
- The implications for further research.

The relationship of the study to the literature review: With respect to the overall literature review on education reform, this study indicates that Connecticut is a state that has made progress with respect to standards and assessment over the last 20 years. The first Connecticut Mastery Tests were administered in 1985, just two years after the publication of A Nation at Risk. In addition, the CAPT test was piloted in 1993, just four years after the first National Education Summit and three years before the second National Education Summit. By the time the second National Education Summit called for improving teacher quality in 1999, not only was Connecticut's BEST Program already ten years old and being revised to include teaching portfolios, but also its professional development program (CEUs) for veteran teachers was in its second five-year cycle with new requirements for recertification.

In addition, in 1999 Connecticut revised its Common Core of Learning and its Common Core of Teaching, adopted its K-12 Frameworks along with its Guides to K-12 Program Development, and published Guidelines for Teacher Evaluation and Professional Development. While this final document theoretically establishes the critical link between effective teaching and increased student learning, as the literature review suggests is essential, it only outlines the processes and procedures for making it happen. Thus, in effect, Connecticut pushed, or instigated or jump-started education reform, as the literature review suggests, through state-imposed standards and assessments, and even outlined the delivery system for aligning school improvement initiatives with staff development and teacher evaluation. However, the schools and the districts are being left to determine how to make it happen for 39,900 teachers in 1,069 public schools for 554,000 PreK-12 students (Archer, 2001).

In the areas of standards, assessment and efforts to raise quality of teaching, Connecticut averaged a steady B over the last five years in Education Week's Quality Counts annual report card on the condition of public education in the 50 states (1997, 1998, 1999, 2000, 2001). According to the authors of these studies, Connecticut is considered to be the strongest in setting the standard for teacher quality. Its efforts to license teachers based on performance resulted in the nation's first objective portfolio assessment for novice teachers.

With respect to accountability, unlike other states such as Kentucky and Tennessee, Connecticut resisted tying test scores to high stakes consequences. It did publish the state's first list of low performing schools in 1999, but the stated intent was to help with increased financial support and not to punish. In addition, two years ago, the legislature called on the districts to reduce the incidence of social promotion, and also mandated that those districts serving the highest numbers of children in poverty to assess students in grades 1-3 two times a year in reading and to offer after-school and summer programs for those in jeopardy of failure. However, these efforts do fall short of the high stakes consequences that states similar to Texas and Tennessee imposed on their districts, schools and teachers.

Finally, the results of this study support the notion that Connecticut appears to be particularly plagued with the dilemma of leveraging the pivotal role of education reform with the need to cure the diverging socioeconomic issues of its communities. The data from the surveys and the interviews indicated that Connecticut's biggest weakness is the academic gap between the rich and the poor. Even though Connecticut appears to have moved through the evolutionary dimensions of school reform, including state standards

and assessments, accountability, teacher quality, staff development and teacher evaluation as described in the literature review, it stops short at successfully addressing the urban education issues that give it one of the largest achievement gaps in the nation. With the fourth poorest city in the nation as well as the fourth richest, Connecticut is the home of many communities that house the highest incomes in the country as well as the deepest pockets of families living in poverty. It was the principals of these urban schools in the study who, not only agreed that the CAPT was a "true catalyst" for reform, but who also had the greatest difficulty in meeting the educational needs of their socio-economically depressed populations.

How this study contributes to an understanding of the previous literature: This study adds to our understanding of the previous literature on *school improvement initiatives* in that it confirms that linking curriculum to standards and assessment, using performance assessment tools, teaming teachers with students and reconfiguring school time are school improvement strategies being implemented in response to the CAPT.

The study clearly indicated that the CAPT precipitated the process of *revising curriculum to align with state standards and assessments* throughout Connecticut. Even before the State came out with its K-12 Frameworks, respondents in the study had already revised their curricula in the four core subject areas to align with the objectives of the CAPT test as the literature on effective schools research suggests (Byrnes,Corneky & Byrnes, 1992; Glaser, 1989, 1992; Lezotte, 1992; Schmoker & Wilson, 1993). Moreover, they also started the process of articulating their curricula across the grades, particularly in the 7th through 12th grades. Thus, this study reinforced Cawelti's findings (1994, 1996)

that schools and districts used state standards and assessments to guide the revision of curriculum for the purpose of improving student achievement.

This study also affirmed the *use of performance assessment tools* as a school improvement initiative that is being implemented in response to the CAPT. Respondents agreed that teachers and students were not accustomed to CAPT open-ended test questions that were scored holistically using a rubric. While the Connecticut school leaders in this study agreed with Darling-Hammond (1996) that these kinds of performance assessments are thorny issues, they indicated that extensive efforts were made to train teachers to integrate these kinds of assessments into classroom instructional strategies.

With respect to *teaming teachers with students* and *reconfiguring school time*, the interviewees affirmed these two as desirable school improvement initiatives that could positively impact outcomes on the CAPT. However, they agreed with the literature that these seemed to be more difficult to implement in the comprehensive high schools. This adds credence to the survey results that indicated a low percentage of schools actually implementing them or even considering these initiatives. The study's data did indicate that the smaller schools were more apt to be successful with these two school improvement initiatives. Perhaps a question for further research would be if school size is a countervailing variable for the successful implementation for some school improvement initiatives.

Thus, the results of this study, then, align with the research of Cawelti (1993), Conley (1993, 1995, 1995), Lee & Smith (1994, 1995), Previdi (1993), Smith (1994), Snyder (1994), and Negroni (1996) that found the dominant school improvement

initiatives to be linking curriculum with standards and assessment and using performance assessment tools, with teaming teachers with students and reconfiguring school time being less dominant but no less considered.

While the data gathered for this study indicated a widespread acknowledgement of the need for *staff development as a support for implementing school improvement initiatives* associated with the CAPT, finding the time continues to be most challenging. In the surveys and the interviews, respondents agreed that there was little contractual time for them to take a systemic approach to building their staff's capacity to modify and adjust their instructional strategies to meet the goals and objectives the CAPT test. Moreover, not having a competent pool of substitute teachers seemed to exacerbate the problem. Nonetheless, this study found that high schools in Connecticut were making efforts to weave staff development into the job of teaching as the literature suggests (Calhoun, 1994; Darling-Hammond, 1996; Elmore, 1996; Hord and Boyd, 1995; Joyce and Showers, 1995, 1996; Sparks and Hirsh, 1997; Speck, 1996) as well as strategically linking it to improving student achievement (Cuban, 1992; Speck, 1996). Although Connecticut is one of the states that require staff development for re-certification, it only recently added specific training in specific areas, such as reading and technology. It also requires the districts to provide annually a certain percentage of the staff development needed for continuing certification and to maintain records on these activities for their staff members.

When it comes to *linking staff development to teacher evaluation,* as the literature review suggests, Connecticut has only recently documented the need for this connection with the publication of Connecticut's Commitment to Excellence in Teaching: The

Second Generation (1999). In the chapter on Guidelines for Teacher Evaluation and Professional Development, the need for a "clear link between teacher evaluation and professional development and improved student learning" (p. 55) is defined as a critical goal for district plans. But once again, the state stops short of giving specific examples of how to accomplish this kind of interconnectedness.

While each district is required to submit both their professional development and teacher evaluation plans to the state for feedback, it remains to be seen if this latest attempt to connect these two entities has any appreciable effect on the actual implementation of these plans in the schools. For those high performing districts, this kind of integration is more than likely inherent in the culture of school community. However, in those low-performing districts where student achievement is well below the state goal, where staff morale is down, and where community support for education is nearly nonexistent, this kind of legislation could jumpstart the move toward aligning school improvement initiatives with staff development and teacher evaluation. It remains to be seen, however, if this new document will serve as a catalyst for change and be operationalized in the districts.

How this study contributes to our understanding of Iwanicki's Framework: Results of this study indicated that school leaders were beginning to make the connections between school improvement initiatives, staff development and teacher evaluation, as Iwanicki suggests, in indirect ways through the goal and objective setting processes that already exist in the districts. From the data gathered, particularly from the interviews, it did appear that school leaders were logically coming to the conclusion that they had to find strategies for connecting these constructs. But the supports in terms of

time and staff development, and the structures in terms of teacher evaluation and incentives do not exist to give them the wherewithal to make it happen. The framework is certainly a reform model that could instigate or jumpstart change in education practice as well as policy. However, school leaders not only need to learn how to design and implement these connected constructs, but more importantly, need the time to study and reflect on the results so that they can modify, adjust and sort out the most effective of these new integrated strategies that have a positive impact on improved student learning.

With the state's urging to align school improvement initiatives with staff development and teacher evaluation for the purpose of improving student learning, school leaders now have a top-down policy "push" to apply Iwanicki's Framework to their school improvement plans, their professional development plans and their teacher evaluation plans. The question is will they be able to make the bottom-up changes that could systemically result in improved learning for all students?

The limitations of the study: While this study was structured around a literature review of education reform around the country, the results are not generalizable to other states because each state has its own unique standards and assessment system, as well as its own unique demographics. However, it could be used as a framework for similar studies in other states. The results of this study are also limited to the first generation of the CAPT. With the results of the second generation CAPT, further research will be required to determine if these conclusions are still valid. Finally, these conclusions are limited to the schools and principals who participated in the study. While every attempt was made to include a representative sample of each Educational Reference Group, there were some districts and principals in each ERG that did not respond or participate.

Implications for further research: Certainly the publication of Connecticut's Commitment to Excellence in Teaching: The Second Generation (1999) has policy implications for further research. Can a state mandate with such a gentle push that merely requires districts to examine their teacher evaluation and staff development processes, really create the catalyst for change throughout an educational system with such extremes of diversity? Might the publication of this state document be considered what Malcolm Gladwell (2000) calls a "tipping point" for potential change? Gladwell describes three major components that make an event a tipping point: the people who are critical in spreading information, the characteristics of memorable ideas, and the sensitivity to the conditions and circumstances of the times and places in which they occur. His examples include Paul Revere as the critical person who mobilized an entire region to arms; Sesame Street as the creator of memorable ideas that changed the way critical ideas were presented to preschoolers; New York City's epidemic crime problems as the circumstances of the times that led to the acquittal of Bernard Goetz (Gladwell, 2000). An analogous question might be, does Connecticut have the critical people in its educational leadership and teaching ranks with the ability to create the ideas that will use the circumstances of these times to craft an assessment system that is equitable and fair for all of its students?

The concept of tipping points has a number of other parallel implications for future research into educational practice. Even if all school districts in Connecticut do make the prescribed connections between teacher evaluation and staff development, is that enough to level the playing field for communities regardless of the extremes of wealth and poverty? Exactly how are districts redesigning their teacher evaluation and

staff development processes and what kinds of accountability measures are being used to ensure compliance? Are there common trends or themes among districts with respect to how they are redesigning their teacher evaluation and staff development plans, and which ones are having any kind of effect on student performance?

More specific to the CAPT, another possible "tipping point" that will require further research is the recent Public Act No. 01-166 Concerning High School Graduation and the Connecticut Academic Performance Test (State of Connecticut, 2001). In this eleventh hour legislation, the General Assembly required all local and regional boards of education to review and revise high school graduation assessment criteria to include, but not exclusively be based on, the results of the tenth grade CAPT test, and to outline a course of study to assist those students who do not successfully meet "a satisfactory level of competency prior to graduation" (State of Connecticut, 2001). It will remain to be seen if this public act gives the CAPT the high stakes teeth that have been lacking since its inception. Moreover, further research will be needed to determine where this act has its greatest impact and why. While this public act may improve the CAPT's image in the high performing districts, it surely will not have much of an impact on their test scores that are already at or above the state goal. For the low performing districts, will it be the "tipping point" that sparks a radical change in student outcomes on the CAPT, or will it just widen the gap between the haves and the have-nots?

In Connecticut, high standards for students and educators have been integral parts of the state reform agenda since the 1980s. Connecticut enjoys the distinction of having one of best education systems with some of the best-prepared teachers in the country (Linda Darling-Hammond, 2000). While this certainly holds true for many Connecticut

school districts with their high performing students, earning that distinction for the state's socio-economically depressed communities remains elusive. Perhaps the state's latest effort to "reach every student" with guidelines articulated in its Commitment to Excellence in Teaching: The Second Generation (1999) will be the "tipping point" that creates the contagious need in epidemic proportions to connect standards, assessments and accountability through the integration and alignment of school improvement initiatives with staff development and teacher evaluation. Perhaps through on-going reflection and research, school leaders in Connecticut will learn how to constantly and continuously modify and adjust these ingredients to meet the diverse educational needs of their student populations.

On the national level, the education reform movement has had a number of "tipping points" that have brought it to where it is today. By way of analogy, we could consider the successful launching of Sputnik I as one of a number of tipping points that launched the national education reform movement. This most certainly was a "sticky" (Gladwell, p. 89) event in that it haunted the inbred competitive spirit of all Americans. Then came what we might call a second major tipping point when A Nation At Risk was released in the "context of the times" (Gladwell, p. 132) during the deep economic recession of the early 80s when business leaders were seeing their global share of the market sharply disappear into the hands of their foreign competitors. And finally the three Education Summits of 1989, 1996 and 1999 could be likened to tipping points that were characterized by "the law of a few" (Gladwell, p. 31) that starts some contagious behavior which in turn spreads to epidemic proportions.

These "tipping points" of national education reform have brought us to the threshold of where we are today with states now wrestling with how to find the right mix of standards, assessments and accountability to positively impact student learning. The implications for further research on a broader national level are many. A comparative study of statewide policy decisions with respect to school reform could be studied to determine what can be done to deliberately "tip" education reform. More specifically, individual states could look for and analyze the smaller benchmark events that precipitated a geometric progression of large-scale change. And finally schools and districts could take a research view of their initiatives to see if they possess the "stickiness factor", or if they use the "law of a few", or if the "context of the times" are making a major impact on reforming how they do business.

When we look at the history of education reform over the last four decades, it is apparent that there are no quick fixes. While many reform efforts have focused on finding the right combination of solutions and strategies, the very nature of improving student learning with the many variables that affect it make it impossible to create any kind of perfect formula for success. As long as a free public education is the inalienable right of everyone who comes from the incredibly diverse cultures and experiences that make up our American tapestry, the educational reform agenda must take on a more continuous process of creating and reshaping. It needs to be more eclectic in its approach so that it preserves the best of the past, deliberates wisely about current options and opportunities for change, and researches carefully to make plans for the future.

Thus, rather than looking for the Princess Bride (1972) ending where Buttercup rides off into the sunset with the Man in Black, education reform in Connecticut, as well

as across the country, needs to take on more of a Neverending Story (1976) focus that is carefully studied and analyzed. It needs to examine what is working, as well as what is not working over time and why. It needs to be forever ready to modify, adjust and reinvent to meet the needs of the people, the times and the place. But then again isn't that what research tells us good teaching is all about?

APPENDICES

Appendix A

ITALIA A. NEGRONI
53 Blueberry Hill
Weston, CT 06883
203-227-8044

August 15, 1998

Mrs. Wilhemenia Christon, Principal
Ansonia High School
115 Howard Avenue
Ansonia, CT 06401

Dear Mrs. Christon,

As an administrator in a district that is truly representative of the "two Connecticuts," I have wrestled with the haunting challenges of the Connecticut Academic Performance Test. Since its inception, a major part of my responsibility has been to work with secondary administrators to mix and match various school improvement initiatives with the necessary supports and structures that could have an impact on student achievement on the CAPT.

As a result I have chosen to administer the enclosed statewide survey on "How School District Leaders Are Responding to the Connecticut Academic Performance Test," as a means of collecting data for my University of Connecticut dissertation. In addition, the Connecticut State Department will be used to gather data on CAPT scores, and the Strategic School Profiles will be used to gather socioeconomic data on your school.

The enclosed survey has been tested to insure that it will take a minimum amount of time to complete, approximately 10 to 15 minutes. That means in the time it takes to have a cup of coffee or tea, you can contribute significantly to creating a body of research that will begin to document this newer area of assessment in Connecticut. All data will be reported anonymously and no individual district or school name will be used in the report. Once the survey data is compiled, you may be asked to participate in a brief follow-up interview.

So take a coffee or tea break from all those opening-day operational issues, and think about what you and your staff have been doing in response to the CAPT. Please return the completed survey in the enclosed self-addressed, stamped envelope by September 15, 1998 so that the follow-up phases of this research can be completed. Your comments on any aspects of the survey instrument are welcome, and your responses will be held in the strictest of confidence.

If you wish, I would be pleased to send you a summary of the survey results. Thanks so much for your cooperation.

Sincerely,

Italia A. Negroni

Appendix B

ITALIA A. NEGRONI
53 Blueberry Hill
Weston, CT 06883
203-227-8044

November 1, 1999

First Name, Last Name, Principal
Street Address
City, Town, CT 06____

Dear _____,

Some months ago, you responded to a statewide survey for my UCONN doctoral dissertation on "How School Districts Leaders Are Responding to the Connecticut Academic Performance Test (CAPT)." Now that I have compiled the results, I am in the final phase of conducting follow-up interviews to verify the survey data.

Your input so far has been very helpful in creating the quantitative data for this study. As you know, very little, if any, research has been done on this topic. Participating in an interview will not only give more detail to your survey responses, but will also give you an opportunity to add any other ideas or comments you may have to this very sorely needed baseline body of research.

I would like to schedule this interview at your convenience during the next six weeks between November 8 and December 17, 1999. It should only take 30 to 45 minutes and will consist of answering the enclosed list of five semi-structured questions. If your schedule will not allow an in-person interview, we could set a time for a telephone interview.

I will be calling your office in the next few days to confirm a time that would be best for you. In an effort to save some telephone tag time, perhaps you could alert the staff person who handles your schedule that I am going to call, so that we can expeditiously set a date. I certainly appreciate your continued support for this research, and I look forward to meeting with you.

Very truly yours,

Italia A. Negroni

A STATEWIDE SURVEY IN CONNECTICUT ON SCHOOL IMPROVEMENT INITIATIVES TO IMPROVE STUDENT ACHIEVEMENT ON THE CAPT

Please circle one:
Ed. Ref. Group: A B C D E F G H I

I. SCHOOL IMPROVEMENT INITIATIVES RELATED TO CAPT: This section focuses, as the literature indicates, on what school improvement initiatives, if any, are being implemented in an effort to improve student achievement on the CAPT in your school.

FOR EACH QUESTION BELOW, PLEASE CIRCLE THE NUMBER THAT BEST APPLIES TO YOUR SCHOOL.

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
1. Curriculum standards linked to CAPT objectives:	1	2	3	4	5
• Language Arts	1	2	3	4	5
• Mathematics	1	2	3	4	5
• Science	1	2	3	4	5
• Social Studies	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on curriculum standards linked to CAPT _____

	Presently Not in Place	Presently Being Considered	Presently In Process	In place Since CAPT	In place Before CAPT
2. Use of performance assessment tools	1	2	3	4	5
• Holistic scoring	1	2	3	4	5
• Rubrics	1	2	3	4	5
• Performance assessment	1	2	3	4	5
• Portfolios	1	2	3	4	5
• Expositions of student work	1	2	3	4	5
• Common departmental assessments	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on use of performance assessment tools _____

(SCHOOL IMPROVEMENT INITIATIVES RELATED TO CAPT - CONTINUED)

	Presently Not in Place	Presently Being Considered	Presently In Process	In place Since CAPT	In place Before CAPT
3.Teachers working as teams to improve instruction	**1**	**2**	**3**	**4**	**5**
• Interdisciplinary teams	1	2	3	4	5
• Grade level teams	1	2	3	4	5
• Cross graded teams	1	2	3	4	5
• Grouped by themes	1	2	3	4	5
• Academies	1	2	3	4	5
• Advisory Teams	1	2	3	4	5
• Common Planning Time for Team Teachers	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on teachers working as teams to improve instruction

Additional comments or details on advisory period and/or common planning time

	Presently Not in Place	Presently Being Considered	Presently In Process	In place Since CAPT	In place Before CAPT
4. Change in school year/day schedule	**1**	**2**	**3**	**4**	**5**
• Longer Student Day	1	2	3	4	5
• Longer Student Year	1	2	3	4	5
• Longer Teacher Day	1	2	3	4	5
• Longer Teacher Year	1	2	3	4	5
• Other_____	1	2	3	4	5

	Presently Not in Place	Presently Being Considered	Presently In Process	In place Since CAPT	In place Before CAPT
5. Change in schedule to longer time blocks	**1**	**2**	**3**	**4**	**5**
• 4 x 4 semester	1	2	3	4	5
• 4 x 4 hybrid	1	2	3	4	5
• Alternating day 8 block	1	2	3	4	5
• Trimester scheduling	1	2	3	4	5
• Other_____	1	2	3	4	5

Additional comments or details on changes or plans to change the school year and/or schedule?

II. STAFF DEVELOPMENT SUPPORT FOR SCHOOL IMPROVEMENT INITIATIVES: This section focuses on in what ways, if any, staff development is being linked to school improvement initiatives and structures for accountability (teacher evaluation/incentives) in an effort to improve student achievement on the CAPT.

	Presently Not in Place	Presently Being Considered	Presently In Process	In place Since CAPT	In place Before CAPT
1. Staff development linked to school improvement initiatives	**1**	**2**	**3**	**4**	**5**

Additional comments or details on how staff development is/has been linked to school improvement initiatives in your school.

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
2. Staff development linked to teacher evaluation processes (including incentives)	**1**	**2**	**3**	**4**	**5**

Additional comments on how staff development is/has been linked to structures for accountability (teacher evaluation/incentives) in your school .

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
3. Staff development in teaching strategies	**1**	**2**	**3**	**4**	**5**
• Thematic instruction	1	2	3	4	5
• Differentiated instruction	1	2	3	4	5
• Interdisciplinary teaming	1	2	3	4	5
• Constructivist teaching & learning	1	2	3	4	5
• Hetereogeneous grouping	1	2	3	4	5
• Cooperative learning	1	2	3	4	5
• Performance-based testing	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on staff development topic areas

(SCHOOL IMPROVEMENT INITIATIVES RELATED TO CAPT - CONTINUED)

4. Scheduling of staff development	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
• During school day	1	2	3	4	5
• After school day	1	2	3	4	5
• When school ends (June)	1	2	3	4	5
• When school begins (August)	1	2	3	4	5
• Contractual special days	1	2	3	4	5
• On-site	1	2	3	4	5
• Off-site	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on options available for scheduling of staff development

_____

_____

_____

5. Length of sessions	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
• One hour	1	2	3	4	5
• Half-day	1	2	3	4	5
• Full day	1	2	3	4	5
• 2 to 3 days	1	2	3	4	5
• One week	1	2	3	4	5
• Other _____	1	2	3	4	5

6. Frequency of sessions	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
• Weekly	1	2	3	4	5
• Monthly	1	2	3	4	5
• Quarterly	1	2	3	4	5
• Once a year	1	2	3	4	5
• Twice a year	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on length and/or frequency of staff development_____

_____

_____

_____

(SCHOOL IMPROVEMENT INITIATIVES RELATED TO CAPT - CONTINUED)

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
7. Sessions presented by:					
• Teachers	1	2	3	4	5
• Administrators	1	2	3	4	5
• District personnel	1	2	3	4	5
• Consultants	1	2	3	4	5
• Staff from other districts	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on staff development presenters _____

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
8. Sessions designed by:					
• Staff members	1	2	3	4	5
• District personnel	1	2	3	4	5
• Consultants	1	2	3	4	5
• Staff from other districts	1	2	3	4	5
• Other _____	1	2	3	4	5

Additional comments or details on other individuals you have had design staff development activities

Other comments on staff development _____

III. STRUCTURES FOR SCHOOL IMPROVMENT INITIATIVES: This section focuses on in what ways, if any, structures for accountability (teacher evaluation/incentives) are being linked to school improvement initiatives and staff development in an effort to improve student achievement on the CAPT.

	Presently Not in Place	Presently Being Considered	Presently In Process	In place Since CAPT	In Place Before CAPT
1. Teacher evaluation linked to school improvement initiatives	1	2	3	4	5

Please describe how teacher evaluation is/has been linked to school improvement initiatives in your school.

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
2. Incentives linked to school improvement initiatives	1	2	3	4	5

Please explain how incentives are/have been linked to school improvement initiatives in your school.

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
3. Teacher evaluation linked to staff development	2	3	4	5	

Please explain how teacher evaluation is/has been linked to staff development in your school.

	Presently Not in Place	Presently Being Considered	Presently In Process	In Place Since CAPT	In Place Before CAPT
4. Incentives linked to staff development	1	2	3	4	5

Please explain how incentives are/have been linked to staff development in your school.

(SCHOOL IMPROVEMENT INITIATIVES RELATED TO CAPT - CONTINUED)

IV. From your perspective, to what extent, if any are these school improvement initiatives, staff development support and structures for accountability (teacher evaluation/incentives) being integrated as a response to the CAPT in your school?

Other comments:

Thank you for completing this questionnaire. Please return this questionnaire in the self-addressed stamped envelope by October 15, 1998. You may be asked to participate in a follow-up interview on this topic.

Appendix D

INTERVIEW PROTOCOL
FOR HIGH SCHOOL PRINCIPALS

1. **In what, if any, ways is the CAPT influencing the development and implementation of school improvement initiatives in your school?**

2. **Are there any other school improvement initiatives being supported in your school that were not instituted in response to the CAPT?**

3. **What kinds of linkages, if any, are being made with respect to school improvement initiatives, staff development support and structures for accountability (teacher evaluation/incentives)?**

4. **Where do you think the school needs to go from here?**

5. **What are some of the factors that will help/hinder the school's progress?**

6. **In what ways, if any, do the district leaders support or hinder your efforts to link school improvement initiatives with staff development and structures for accountability (teacher evaluation/incentives)?**

Appendix E

Interviews

DATE OF INTERVIEW	INFORMANT ERG/SUBJECT #	POSITION	SIGNIFICANCE
1. 11/19/99	ERG A Subject #177	Principal	Required by study's design
2. 11/23/99	ERG A Subject #93	Principal	Required by study's design
3. 12/3/99	ERG H Subject #79	Principal	Required by study's design
4. 12/3/99	ERG I Subject #173	Principal	Required by study's design
5. 12/9/99 6. Refused to be interviewed	ERG D Subject #102	Principal	Required by study's design
7. 12/13/99	ERG H Subject 28	Principal	Required by study's design
8. 12/13/00	ERG D Subject #98	Principal	Required by study's design
9. 12/17/99	ERG B Subject #100	Principal	Required by study's design
10. 12/21/99	ERG I Subject #153	Principal	Required by study's design
11. 1/21/00	ERG E Subject #112	Principal	Required by study's design
12. 1/21/00	ERG I Subject #76	Principal	Required by study's design
13. 1/21/00	ERG I Subject 38	Principal	Required by study's design
14. 2/8/00	ERG C Subject 133	Principal	Required by study's design
15. 2/9/00	ERG F Subject #166	Principal	Required by study's design
16. 2/9/00	ERG F Subject #88	Principal	Required by study's design

17. 2/10/00	ERG B Subject #51	Principal	Required by study's design
18. 2/15/00	ERG G Subject #110	Principal	Required by study's design
19. 2/15/00	ERG G Subject #135	Principal	Required by study's design
20. 2/25/00	ERG D Subject #109	Principal	Required by study's design
21. 2/27/00	ERG G Subject #41	Principal	Required by study's design
22. 2/27/00	ERG F Subject 44	Principal	Required by study's design
23. 2/28/00	ERG H Subject #1	Principal	Required by study's design
24. 2/29/00	ERG C Subject 69	Principal	Required by study's design
25. 2/29/00	ERG D Subject #103	Principal	Required by study's design
26. 3/29/00	ERG I Subject #113	Principal	Required by study's design
ADDITIONAL INFORMAL INTERVIEWS			
27. 11/17/99	ERG H #127	Principal	Author's district high school
28. 11/17/99	ERG H #125	Principal	Author's district high school
29. 2/28/00	ERG I #59	Lead Principal for the district High Schools	Author's district high school
30. 2/28/00	ERG I #60		Author's district high school
31. 2/2800	ERG I #62		Author's district high school

APPENDIX F
SUM OF THE AVERAGES

subject	ref	SI-ave	SII-ave	SIII-ave	Total	Rank #
173	9	3.77	4.78	4.00	12.55	1.
98	4	2.48	5.00	5.00	12.48	2.
28	8	3.25	3.73	5.00	11.97	3.
25	4	3.21	4.76	4.00	11.97	4.
110	8	2.35	4.52	5.00	11.87	5.
133	3	3.52	4.32	4.00	11.83	6.
41	7	2.62	4.19	5.00	11.80	7.
38	8	2.78	3.99	5.00	11.77	8.
109	4	2.41	4.18	5.00	11.59	9.
76	8	2.73	3.74	5.00	11.47	10.
177	1	2.72	4.78	3.75	11.25	11.
88	6	3.59	4.52	3.00	11.11	12.
106	8	2.98	4.38	3.75	11.11	13.
24	4	3.02	3.36	4.50	10.88	14.
62	9	3.10	3.69	4.00	10.79	15.
100	2	4.39	3.32	3.00	10.71	16.
127	8	3.30	4.33	3.00	10.63	17.
122	3	2.59	4.13	3.75	10.48	18.
90	9	2.90	4.21	3.25	10.36	19.
6	2	2.86	3.46	4.00	10.32	20.
3	1	3.34	4.47	2.50	10.31	21.
99	4	3.10	4.07	3.00	10.17	22.
72	2	2.63	4.07	3.25	9.95	23.
43	6	2.53	3.39	4.00	9.92	24.
103	5	3.22	3.94	2.75	9.91	25.
178	1	3.01	4.53	2.25	9.79	26.
145	6	3.05	3.71	3.00	9.76	27.
21	3	2.88	3.60	3.25	9.73	28.
108	3	2.26	4.43	3.00	9.69	29.
77	8	2.54	4.12	2.75	9.41	30.
155	4	2.48	3.90	3.00	9.38	31.
124	7	3.11	4.26	2.00	9.37	32.
10	4	3.07	3.29	3.00	9.36	33.
139	4	2.11	3.22	4.00	9.33	34.
85	6	2.07	2.99	4.25	9.31	35.
11	9	2.42	3.38	3.50	9.29	36.
87	2	2.31	3.98	3.00	9.29	37.
168	3	2.42	3.77	3.00	9.20	38.
14	9	2.71	3.41	3.00	9.12	39.
59	9	3.11	4.24	1.75	9.10	40.
27	5	2.57	4.01	2.50	9.08	41.
23	2	2.87	3.43	2.75	9.05	42.
36	5	2.49	4.06	2.50	9.04	43.
121	2	2.09	3.94	3.00	9.03	44.
13	9	2.94	2.98	3.00	8.92	45.
97	9	1.75	4.16	3.00	8.91	46.
172	3	2.68	3.70	2.50	8.88	47.
154	6	3.02	3.10	2.75	8.87	48.
117	6	2.63	3.23	3.00	8.86	49.
140	6	2.27	2.58	4.00	8.85	50.
29	8	3.66	4.20	1.00	8.85	51.

146	6	2.58	3.26	3.00	8.84	52.
52	2	3.47	3.61	1.75	8.83	53.
37	4	2.66	4.13	2.00	8.79	54.
120	3	2.31	3.20	3.25	8.76	55.
169	6	2.58	3.86	2.25	8.69	56.
123	4	2.87	3.78	2.00	8.65	57.
164	9	2.96	4.38	1.25	8.58	58.
171	7	2.32	3.25	3.00	8.57	59.
94	4	2.86	3.95	1.75	8.56	60.
111	8	2.52	3.77	2.25	8.54	61.
53	7	2.86	3.66	2.00	8.53	62.
128	8	2.31	4.29	1.75	8.35	63.
144	6	2.45	3.86	2.00	8.31	64.
104	8	2.47	3.82	2.00	8.29	65.
119	1	2.67	3.63	2.00	8.29	66.
107	8	2.62	4.09	1.50	8.21	67.
35	3	2.40	2.95	2.75	8.11	68.
101	4	2.35	3.70	2.00	8.05	69.
50	2	2.78	3.23	2.00	8.01	70.
22	5	2.07	2.88	3.00	7.95	71.
31	1	3.44	3.51	1.00	7.94	72.
60	9	2.23	3.46	2.25	7.94	73.
49	2	2.39	4.24	1.25	7.88	74.
81	8	2.63	4.20	1.00	7.83	75.
175	6	2.66	2.15	3.00	7.80	76.
67	4	2.25	3.76	1.75	7.77	77.
5	4	3.00	3.00	1.75	7.75	78.
34	3	2.42	3.19	2.00	7.61	79.
148	9	2.51	3.59	1.50	7.60	80.
19	2	2.15	3.42	2.00	7.57	81.
40	4	2.49	3.03	2.00	7.52	82.
167	5	2.64	2.63	2.25	7.52	83.
32	3	2.24	2.96	2.25	7.45	84.
17	8	2.48	2.92	2.00	7.40	85.
134	7	2.18	3.16	2.00	7.34	86.
116	4	2.25	3.57	1.50	7.32	87.
83	6	2.13	3.35	1.75	7.23	88.
174	9	2.41	3.04	1.75	7.20	89.
70	3	2.72	2.70	1.75	7.17	90.
63	3	2.15	3.50	1.50	7.15	91.
115	1	1.99	3.14	2.00	7.13	92.
150	9	2.17	3.21	1.75	7.13	93.
102	4	2.21	3.26	1.50	6.98	94.
39	7	2.24	2.71	2.00	6.95	95.
45	2	2.82	3.03	1.00	6.84	96.
161	3	1.72	3.23	1.75	6.70	97.
95	9	2.03	2.63	2.00	6.66	98.
33	8	1.93	2.72	2.00	6.65	99.
112	5	2.60	3.04	1.00	6.65	100.
135	7	2.40	2.95	1.25	6.60	101.
1	8	2.13	3.10	1.25	6.48	102.
113	8	2.02	2.96	1.50	6.47	103.
44	6	2.57	2.84	1.00	6.41	104.
51	2	2.53	2.79	1.00	6.32	105.
79	8	2.03	3.18	1.00	6.21	106.
12	9	2.39	2.34	1.00	5.73	107.

166	6	2.15	2.01	1.50	5.66	108.
153	9	1.81	2.76	1.00	5.57	109.
125	8	1.70	2.62	1.00	5.32	110.
93	1	2.16	2.14	1.00	5.30	111.
69	3	1.67	1.25	1.75	4.67	112.
78	8	1.34	1.95	1.00	4.29	113.

SCHOOL NAME_____NAME OF PERSON COMPLETING SURVEY_____

HIGH SCHOOL RESTRUCTUING REFORM EFFORTS SURVEY

Please check the High School Restructuring Reform Efforts
initiated and/or planned for 9th and 10th grades in your district
SINCE SPETEMBER 1994

PLEASE CIRCLE THE NUMBER THAT APPLIES SINCE SEPTEMBER 1994 USING THE FOLLOWING SCALE:

1=IN GENERAL USE
2=PARTIALLY IMPLEMENTED
3=PLANNED FOR NEXT YEAR
4=NOT PLANNED FOR NEXT YEAR

ORGANIZATION & STRUCTURE

1. Change in School day/year

Longer day	1	2	3	4
Longer year	1	2	3	4

Other_____

2. Block Scheduling

Alternating day	1	2	3	4
Trimester	1	2	3	4
4x4	1	2	3	4
4x4 Modified	1	2	3	4

Other_____

3. School-within-a-school

Teaming students and staff	1	2	3	4
Cross graded teams	1	2	3	4
Grade Level Teams	1	2	3	4
Teamed by themes	1	2	3	4
Interdisciplinary teams	1	2	3	4
Teacher/student advisory groups	1	2	3	4
Academies	1	2	3	4

Other _____

4. Grouping for instruction

Heterogeneous grouping	1	2	3	4
Grouping and regrouping within teams	1	2	3	4
Mixed ability grouping	1	2	3	4
Cooperative learning groups	1	2	3	4

Other_____

PLEASE CIRCLE THE NUMBER THAT APPLIES SINCE SEPTEMBER 1994 USING THE FOLLOWING SCALE:

1=IN GENERAL USE
2=PARTIALLY IMPLEMENTED
3=PLANNED FOR NEXT YEAR
4=NOT PLANNED FOR NEXT YEAR

CURRICULUM & ASSESSMENT

5. Integrated curriculum

Interdisciplinary	1	2	3	4
Cross graded	1	2	3	4

Other_____

6. Alternative assessment strategies

Portfolios	1	2	3	4
Rubrics	1	2	3	4
Performance demonstrations	1	2	3	4
Expositions of student work	1	2	3	4
Holistic scoring	1	2	3	4
Independent research project	1	2	3	4
Oral project presentations	1	2	3	4

Other_____

7. Technology integration

CD-ROM used for Information retrieval	1	2	3	4
MODEMS used for Information retrieval	1	2	3	4

Other_____

THE LEARNING COMMUNITY

Collaborative staff decision making	1	2	3	4
Business/community collaboration	1	2	3	4
Parent involvement in governance	1	2	3	4
Social-service inter-agency collaboration	1	2	3	4

Other_____

PLEASE LIST ISSUES/CONCERNS THAT CONTRIBUTED TO YOUR INTIATING AND/OR PLANNING THESE RESTURING REFORM EFFORTS:

_____

_____

_____

_____

_____

OTHER COMMENTS: (PLEASE USE REVERSE SIDE IF NECESSARY)

_____

_____

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