Chapter 1: Overview of the Study

“And we will transform our schools and colleges and universities to meet the demands of a new age.”
– President Barack Obama from his Inaugural Address

Introduction

Fifty years ago, the United States of America was almost unanimously regarded across the globe as having the best schools in the world producing the most highly educated labor force. What was once the envy of all nations, developing and developed alike, has now been exposed as deficient when compared country versus country. American student achievement is not so much as slipping; rather, other countries are gaining and surpassing us as we stand still (Schleicher, 2006). The real tragedy is not this loss of status, but our country’s response to it.

For American children and youth, student achievement as defined by academic subject-based exams is weak in terms of international assessments such as the Trends in International Mathematics and Science Study (TIMSS) (Gonzales, 2008) and the Program for International Student Assessment (PISA) (OECD, 2007). This type of student achievement is referred to as standards-based academic subject matter knowledge.

At the same time, students also need to acquire knowledge, skills, and perspectives relevant to their success as citizens, life-long learners, and participants in the economy of the 21st century. This focus typically includes complex problem solving, new forms of literacy, working collaboratively, and new ways of acquiring and communicating knowledge. Such skills have been packaged together and defined as “21st Century Skills”. This movement has forged a plethora of business organizations,
partnerships, and educational alliances creating their own definitions and sets of 21st
century learning objectives (Wagner, 2008). There is much uniformity from these
disparate groups surrounding the need for and what the new skills for today’s economy
need to be without agreement on how states and districts should communicate them,
implement them, or assess them. The issue often becomes an either/or proposal – we
either teach standards-based or we teach 21st century skills – with standards-based
academic content usually coming out on top, particularly in districts serving a majority of

Background of the Problem

The Federal Response

The current national education policy embodied by No Child Left Behind (NCLB)
was a response to poor student achievement nationally and internationally (Causey-Bush,
2005; Goertz & Duffy, 2003). The United States has a long standing “concern” about
student achievement, with reactive policies and wide-sweeping initiatives dating back to
1965. NCLB is the eighth reauthorization of the 1965 Elementary and Secondary
Education Act (ESEA). Each major federal educational policy initiative immediately
post-dates a national awakening from an international stimulus. The original ESEA,
enacted by President Lyndon B. Johnson came on the heels of the Russian launches of
Sputnik in 1957 and then the manned Vostok 1 in 1961. This authorization was in
response to not only these external incidents, but the national war on poverty and the
growing civil rights movement. In this way, the federal government set initial precedence
for its expanded role in educational policy (Kantor & Lowe, 2006).
From *A Nation at Risk* to *Goals 2000* to NCLB, the federal government has marched towards the creation of school and district based accountability systems. *Goals 2000* tied funding to the implementation of the provisions in the act by mandating states design a comprehensive improvement plan where clear academic standards were assessed by statewide testing programs (*Goals 2000*, 1996).

If the conception of academic standards and statewide testing has become the legacy of *Goals 2000*, then sanctions for poor performance on the testing against those standards is the hallmark of *No Child Left Behind*. *NCLB* was also the first time the federal government held schools responsible for ensuring that all different racial, ethnic, and socioeconomic subgroups were improving in relation to the academic standards. Schools and districts were held accountable for missing targets as a whole school or for individual subgroups by being labeled as a “Program Improvement” school or district. “Indeed, while *NCLB* continues the trajectory set in motion during the Great Society that places education at the center of the federal government’s responsibility for social provision, the government’s chief role under the act has become a regulatory or disciplinary one rather than a distributive or compensatory one” (*Kantor & Lowe*, 2006, pp. 480-481). The formation of standards and statewide testing programs went from being strongly encouraged to federally mandated with assessment scores made public for all to see (*Hursh*, 2005).

**The State Response**

*“The first principle is accountability…”* – President Bush, January 2002

States have adopted standards-based comprehensive school reform to improve student achievement. This reform has typically included a number of key elements: state
standards-based assessments, an accountability system linked to school-specific progress in improving performance on the state assessments, and curricular alignment to the state assessments (Datnow, 2003). Even before the enactment of NCLB in 2001, forty-eight states had already created academic standards and implemented some sort of statewide testing program. Now, all fifty states have academic standards and statewide testing programs (Goertz & Duffy, 2003).

The alignment of statewide testing with established state standards has caused districts and schools to rethink the way courses are structured, students are tested, and teachers are trained. Teacher professional development was refocused on how to use district prescribed pacing guides and data to inform instruction. Chapter and end-of-unit tests were no longer developed by individual teachers, but mandated by districts that aligned the tests to the district objectives aligned to their state testing targets. Teachers were expected to use the results of those tests to go back and re-teach the areas where students were not on target to meet the district and state goals. Many districts replaced performance assessments with textbook publishing company tests as a further way to measure student progress (Goertz & Duffy, 2003). Under NCLB, the validity and reliability of standardized and commercially produced assessments trump the subjectivity of teacher created tests, particularly innovative, authentic performance assessments designed to test student application, analysis, and synthesis of knowledge (Hursh, 2005, Sloane & Kelly, 2003).
The District Response

“The [education] achievement gap is the civil rights issues of our time” Rod Paige, former Secretary of Education (Hursh, 2005, p. 610).

Statewide testing programs under NCLB have become high stakes for teachers, schools, districts, and states, but not necessarily for students. The critical public eye placed on testing by the very public release of statewide test score data coupled with the labeling of schools as successful, improving, or in need of improvement place unprecedented stresses on the school system. Publicity is the most common form of accountability (Goertz and Duffy, 2003) and has extremely negative ramifications for schools identified as failing. Diverse, urban schools with high populations living in poverty have a greater chance of being tagged with program improvement status since they traditionally perform lower on standardized tests than more affluent white, suburban districts (Meier, 2004). Compounding the problem is that the urban schools have a greater variety of subgroups with larger populations making it more difficult to meet AYP. If even one subgroup does not meet its growth target, then the entire school is considered in program improvement (Kantor & Lowe, 2006; Kim, 2003).

NCLB and state accountability systems have labeled many school districts, particularly urban and rural districts, as “Program Improvement” when evaluated on state-adopted standards based assessments. This status has pressured those districts to refocus curriculum solely on what is tested under the accountability system, forgoing higher order thinking and problem solving activities (Manna, 2006). There are many demands on school districts to narrow curriculum, instruction, professional development, and assessment to standards-based academic subject matter knowledge (Wood, 2004).
One survey found that over seventy percent of school districts responded to NCLB and statewide testing by reducing the amount of time spent on history, music, and art to create additional time for reading and math; such changes were most common in high poverty districts (Kantor & Lowe, 2006). “Because of the pressure to raise test scores, particularly in the urban school districts, teachers are compelled to teach the skills and knowledge that will be tested, neglecting other usually more complex aspects of the subject and some subjects altogether” (Hursh, 2005, p. 613). Without being able to assess students in a quantifiable manner, it is difficult to sustain any program targeting such abstract skills, no matter how valuable schools and educators believe they are (Broadfoot, 2000).

Schools and districts feel compelled to provide students with “test prep” in order to better prepare students for the statewide testing program. Eschewing essays and more complex types of tests and test questions, teachers dedicate an inordinate amount of time and curricular budgets to test prep materials as opposed to enrichment opportunities for students (Hursh, 2005). Student creativity and interest suffer as teachers supplant instructional time previously spent on culturally relevant, extended learning opportunities to promote student thinking for testing strategies sessions (Causey-Bush, 2005).

The implementation of NCLB across the nation with academic content standards and statewide testing programs has not begun to close the global achievement gap as evidenced by the most recent findings from PISA in 2006 or TIMSS in 2007. Most glaring is the United States’ poor performance on PISA, which asserts to assess the application of knowledge in new situations and other higher order critical thinking skills necessary for student success in high paying jobs (Schleicher, 2006). Continuing on the
work from Goals 2000, NCLB has forced states to identify clear academic content standards and design standardized ways to assess student knowledge attainment of those standards. With the focus on the racial achievement gap, a new global achievement gap has emerged as the United States falls further and further behind other nations in preparing students for the new global society (DeLorenzo, et. al. 2009; Wagner, 2008).

The Global Achievement Gap

“[NCLB needs to] help the transformation from a rickety early 20th century school system into a 21st” – Rick Hess, Education Gadfly Podcast, January 22, 2009

One of the leading voices promoting 21st century skills is The Partnership for 21st Century Skills. Together with The Conference Board, Corporate Voices for Working Families, and the Society of Human Resource Management, The Partnership (2006) released a study entitled, “Are They Really Ready to Work”. A survey of over 400 leading businesses found that amongst other things, over 80% of employers identified critical thinking/problem solving as the most important skill for new hires and that 70% of those employers felt high school graduates were ill-prepared in this area. Other important skills employers sought were professionalism/work ethic, oral and written communications, and teamwork/collaboration.

The fact remains that the educational system today is not designed for the new, ever-changing economy. As America tries to catch up with other countries across the globe, we must keep sight that schools should not prepare students for today, but for a world that does not yet even exist (DeLorenzo, et al., 2009). Assessments and the curriculum they create do not begin to tackle such issues (Silva, 2008).

The movement for such new skills is not new at all; it has been around since the early 90’s. The US Department of Labor (1991) and the National Center on Education
and the Economy (1990) released similar reports elucidating the need for new workforce skills with those skills being taught within the K-16 educational system. Such skills included critical thinking and problem solving, distributed and creative leadership, and applying academic knowledge to real-world situations (DeLorenzo et al., 2009).

Although the title 21st Century Skills has been around for almost 20 years, the ideas behind promoting such skills have been around since the dawn of formalized education itself. The new challenge is ensuring that this movement becomes neither a fad, nor replaces the actual teaching of academic content; rather it is a change in the way we teach such content (Rotherham, 2008).

In fact, students benefit most when 21st Century Skills are used to teach the academic content. Even though neuroscientists and learning theorists have espoused this idea for generations, there is still a major disconnect at the federal, state, district, school, and individual classroom levels (Broadfoot, 2000). Keeping this in mind, not only is it possible to teach the 21st Century Skills and the academic content in concert, but students will better master the academic standards-based material, at the same time as being prepared for the new global workforce. Instead of viewing these as competing forces, they are most effective when implemented in support of each other (Silva, 2008).

**Statement of the Problem**

The problem in this study is to identify and examine a diverse, urban school district successfully preparing all students for both the statewide testing programs mandated under NCLB as well as college and the work world in the new global economy with the tools defined as 21st century skills.
Purpose of the Study

The purpose of this study is to determine how a framework for teaching 21st century skills as the pedagogy to deliver standards-based academic content knowledge affects student achievement in a diverse, urban school district. By viewing the standards as the content and the skills as the vehicle to teach the content, a district ensures students receive a balanced approach thereby exhibiting success on both statewide testing and college and work preparedness.

Research Questions

The study focuses on the connection school districts make between 21st Century Skills and standards-based academic content. The research questions which guide the study are:

- What influences are driving the demand for 21st century skills as equity pedagogy at the district?
- What is the district’s design for utilizing 21st century skills as a pedagogy for teaching standards-based academic content knowledge?
- To what extent has the district’s design been implemented successfully and how does the district measure success?

Significance of the Study

It is usually the most impoverished students of color who are short-changed in our educational system (Darling-Hammond, 2004; Cole, 2001). While much attention is being paid to the national achievement gap between such students and their white counterparts, we are losing site of the ever expanding global achievement gap. With the emphasis NCLB has placed on standardized testing, diverse, urban school districts, in
particular, feel mounting pressure to teach to the test, often causing a narrowing of the curriculum and the pedagogy used to teach it. Meanwhile, districts successfully navigating the standardized testing maze and avoiding the “Program Improvement” tag, are freed to turn their attention to 21st century skills. A new achievement gap replaces the old one where students in higher performing districts are exposed to rigorous curriculum, relevant instruction, and mentoring relationships setting them up for success in the global economy.

For this reason, there is a need to add to the literature diverse, urban districts successfully teaching students 21st century skills while still achieving on the statewide testing programs. This case study could serve as a blueprint for other similar school districts acting as a bridge between the theoretical and the practical. Superintendents, assistant superintendents, school board members, and community organizers are the district level stakeholders who can utilize the conclusions from this study. Individual school instructional leaders could also apply the findings on a smaller scale.

**Limitations**

There are about 15,000 school districts in the United States. This case study focuses on one of those districts. This produces a limited sample size and presents a snapshot in the history of the district’s implementation of a program focused on 21st Century Skills. Additionally, there are many definitions of 21st Century Skills and each and every district may choose to use a different definition. Therefore, the findings of this case study can only be generalized to the specific population in that district.
Delimitations

Being that there are so many different definitions and lists of 21st Century Skills, either one had to be selected, one had to be created by synthesizing all of them, a new one had to be formed, or the district of study’s definition used. This study used Wagner’s Seven Survival Skills as the framework for 21st Century Skills. This was a decision of the entire dissertation group as well as the methodology and survey instruments created for study. Keeping in context issues surrounding equity and the achievement gap, a diverse, urban school district was selected.

Definitions of Related Terms

• 21st Century Skills – The skills needed by students in order to compete in a global economy that go beyond standards-based academic content knowledge.

• API - “The Academic Performance Index is the cornerstone of California’s Public Schools Accountability Act of 1999 (PSAA). The purpose of the API is to measure the academic performance and growth of schools. It is a numeric index (or scale) that ranges from a low of 200 to a high of 1000. A school’s score on the API is an indicator of a school’s performance level. The statewide API performance target for all schools is 800. A school’s growth is measured by how well it is moving toward or past that goal. A school’s API Base is subtracted from its API Growth to determine how much the school improved in a year” (CDE Website).

• AYP - “The federal No Child Left Behind (NCLB) Act of 2001 requires that California determine whether or not each public school and local educational agency (LEA) is making Adequate Yearly Progress (AYP). (An LEA is a school
district or county office of education.) AYP criteria encompass four areas: participation rate, percent proficient (also referred to as Annual Measurable Objectives or AMOs), API as an additional indicator for AYP, and graduation rate. Each of these four areas has specific requirements. Participation rate and percent proficient criteria must be met in both English-language arts (ELA) and in mathematics” (CDE Website).

- **ESEA** – The Elementary and Secondary Education Act first authorized by Congress in 1965 is the federal education policy that governs how federal funds are spent for the purpose of education. It has been reauthorized eight times, most recently as No Child Left Behind (Kantor & Lowe, 2006).

- **Global Achievement Gap** – The gap between the educational quality provided by even the best American schools in relation to what all students will need to know and be able to do in the world today and in the future (Wagner, 2008).

- **NCLB** – No Child Left Behind is the latest reauthorization of ESEA and requires states to set goals for all students to be at least proficient on statewide standardized assessments based on statewide academic content standards by the 2013-2014 school year (Department of Education website).

- **OECD** – The Organization for Economic Cooperation and Development is a cohort of 30 countries committed to democracy and a free market economy. Most important to this study is that the OECD administers PISA (OECD website).

- **PISA** – The Programme for International Student Assessment is administered to fifteen year-olds in 43 countries and purports to assess how critical thinking and problem solving skills by seeing how well students can apply knowledge to real
world situations (PISA website).

- Program Improvement – “The NCLB Act requires all states to implement statewide accountability systems based on challenging state standards in reading and mathematics, annual testing for all students in grades 3-8, and annual statewide progress objectives ensuring that all groups of students reach proficiency within 12 years. Assessment results are disaggregated by socioeconomic status, race, ethnicity, disability, and limited English proficiency to ensure that no group is left behind. Local educational agencies (LEAs) and schools that fail to make adequate yearly progress (AYP) toward statewide proficiency goals are subject to improvement and corrective action measures. In California, Program Improvement (PI) is the formal designation for Title I-funded schools and LEAs that fail to make AYP for two consecutive years” (CDE website).

- Standards-based academic subject matter – The academic knowledge specifically identified by state Department’s of Education to be taught in specific subjects at specific grade levels. Every state has different standards-based academic subject matter. Textbook companies and testing agencies attempt to tailor their programs and products to these standards.

- TIMSS – The Trends in Mathematics and Science Study is administered by the International Association for the Evaluation of Educational Achievement (IEA). It strives to create comparative analysis of educational achievement, curriculum, and instructional delivery in mathematics and science by testing students in the fourth and eighth grades (Mullis & Martin, 2006).