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The Superintendent as Transformational Leader: A Case Study Analysis of the Strategies, Initiatives and Processes used by Superintendents of Exemplar 21st Century School Districts to Implement District-Wide Change for the 21st Century

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The Superintendent as Transformational Leader: A Case Study Analysis of the Strategies,
Initiatives and Processes used by Superintendents of Exemplar 21st Century School
Districts to Implement District-Wide Change for the 21st Century

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March 2015
The Superintendent as Transformational Leader: A Case Study Analysis of the
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Henry Drummond said, “The people who influence you are the people who believe in you.” No journey of this magnitude could have been undertaken without the positive influences of the many personal heroes who have believed in me along the way. To these people, I owe significant gratitude.

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ABSTRACT

The Superintendent as Transformational Leader: A Case Study Analysis of the Strategies, Initiatives, and Processes used by Superintendents of Exemplar 21st Century School Districts to Implement District-Wide Change for the 21st Century

by Rebecca A. Summers

The purpose of this qualitative case study was to identify and describe the visions, frameworks, strategies, initiatives and change models used by eight superintendents of exemplar 21st century school districts as designated by the Partnership for 21st Century Skills, in order to successfully implement a district-wide 21st century learning model. Semi-structured interviews were used to provide rich narratives of the superintendents’ experiences with the transformational change processes in their districts as they implemented 21st century models of education. The interviews were coded and analyzed for common themes and patterns. The findings revealed that although the superintendents were system thinkers about change, they used organic rather than prescribed models of change. The initiatives most commonly implemented were: global and cultural literacy, college and career readiness, standards-based instruction and assessment, personalized learning, and technology. Successful strategies were: engaging the community, hiring for fit, allocating resources to the initiatives, building capacity through collaborative professional development, listening purposefully, recognizing and celebrating successes, building a culture of risk-taking and trust, maintaining a loose-tight relationship with site principals, and fostering organizational persistence and resilience.
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CHAPTER I: INTRODUCTION

In his speech on literacy and education in a 21st century economy, President Barak Obama (2005, June 25) stated, “We have to change our whole mindset in this country. We're living in a 21st century knowledge economy, but our schools, our homes, and our culture are still based around 20th century expectations” (para. 25). Schools must change how they operate in order to keep pace with revolutionary changes in technology, the global marketplace, and significant social, political, and environmental issues. These issues radically affect what students today must know and be able to do (Barnett, 2011; Friedman & Mandelbaum, 2011).

Trilling and Fadel (2009) identified four converging forces on education, leading to the “Perfect Learning Storm,” that are simultaneously creating the need for a transformational change in the educational system: a labor market centered on knowledge, technology and digital devices, digital lifestyles, and new research about learning. The effect of these forces on education is requiring an educational paradigm shift, from education for the Industrial Age to new models of teaching and learning for the 21st century, the Knowledge Age (Trilling & Fadel, 2009).

The Knowledge Age is represented by a flat world concept (Friedman, 2006) connected by global markets, digital communication and blended cultural traditions. Moreover, the complex economic, political and environmental problems of the world today present a clear need for individuals with the capacity for innovation and creativity (Friedman & Mandelbaum, 2011; Wagner, 2012). The students of today need to be prepared for the dynamic demands of the economy and the marketplace that await them.
after graduation. Our collective success depends on students having such skills (Friedman & Mandelbaum, 2011).

An increasing number of leaders from across a broad spectrum of society are unified around the critical need for a revolutionary restructuring in K-12 education, one that will allow students to rise to the challenges of 21st century (Rotherham & Willingham, 2009). As schools are increasingly compelled to equip students with the skills necessary to succeed in the 21st century, school districts across the nation are responding with a renewed interest in systemic change (Duffy, 2008). Such transformational change, although clearly compelling, faces many challenges, not the least of which is the change process itself.

The history of U.S. education reform movements demonstrates that such change efforts rarely succeed (Rotherham & Willingham, 2009). However, given the extraordinary challenges of our time, the 21st century skills movement cannot afford to take the risk of devolving into another fad or being implemented in lip service only. This new pace of change is so significant that it calls for new ways of change management and change leadership (Wolf, 2011).

Transformational leaders in education will need to rise to the challenge of change, in this age of “permanent whitewater” in which information, technology, markets, and people are changing and advancing at unprecedented speed (Vail, 1996). Therefore, research is needed not only to define the instructional practices, the nature of curriculum and assessment, and the necessary staff development for the 21st century skills movement, but also to define the leadership skills and strategies needed to guide the change processes that will ultimately transform and sustain schools at all levels and in all
cultures. Kay and Greenhill (2013) noted that it is no longer necessary to debate the need for a new model of education in the 21st century. Rather, that the real question is: “How do we make it happen?” (p. xiii).

The mantle of responsibility for vision and leadership for 21st century change in education falls most heavily on district superintendents. Celania-Fagan (2012) writes that she has found “far too few leaders in education who really understand the changes needed and the rationale for them. Of those who do understand, there are still few who can really deliver the case for change accurately” (para. 11). From their extensive work on 21st century education, Kay and Greenhill (2013) concluded:

If there is one factor that distinguishes successful 21st century schools and districts it is strong leadership. While individual teachers can adopt the practices of 21st century classroom, the real impact on students is if an entire school and district embraces and works toward the same vision. (p. 26)

Despite the growing body of literature on 21st century education and learning, few studies have been conducted that examine the superintendent’s role in leading this transformational change district-wide. Yet the superintendent is the crucial agent, tasked with mobilizing the human, social, and physical capital needed to bring about systemic change (Cantru, 2013). Research shows that superintendents can and do positively impact district culture and student achievement (Waters & Marzano, 2006; Waters & Marzano, 2007). The challenge for the 21st century superintendent, along with managing complex fiscal realities, is to offer a compelling vision of a 21st century model of education, while being intentional and purposeful about leading an entire system toward achieving these outcomes (Kay & Greenhill, 2013).
Background

The world has changed profoundly since the turn of the 21st century. As Friedman (2006) vividly reported, “the 21st century is challenging and reshuffling the very foundations of our society in new, powerful, and often alarming ways” (p. 5). Several of the change drivers that have affected education are discussed in this section and include: globalization, technology, economic factors, and political factors. These converging forces form what Trilling & Fadel (2009) have named the “Perfect Learning Storm” (p. 21).

Change Drivers Affecting Education in the 21st Century

Globalization. The world is becoming increasingly interconnected, as technology makes instant, real-time communication possible across the globe. At the same time, economies and governments are becoming increasingly interdependent (Friedman, 2006). This shrinking world offers new opportunities to collaboratively and creatively solve challenging problems, such as creating technology that benefits underserved populations by improving their access to affordable goods, health care, education, and jobs (Harrison, 2013).

Technology. Chermack (2011) called technology “the greatest single category of change drivers that we will cope with over the next millennium” (p. 104). Friedman and Mandelbaum (2011) write, “the merger of globalization and IT revolution that coincided with the transition from the twentieth to the twenty-first century is changing everything – every job, every industry, every service, every hierarchical institution” (p. 56). Without question, education is affected by this change driver.
The term “digital natives” refers to the first generation of children to grow up surrounded by and immersed in digital media (Trilling & Fadel, 2009). Digital natives have a new set of expectations for school and for life. They expect to have the freedom to choose what is right for them, customization and personalization, detailed scrutiny, integrity and openness from the organizations that serve them, integration of entertainment and play into work and learning, collaboration, speed in communications and getting information, and innovation in all things (Tapscott, 2009). These expectations put new demands on our educational system. Therefore, traditional ways of teaching with a one-size-fits-all model will no longer suffice. “New ways to make learning interactive, personalized, collaborative, creative, and innovative are needed to engage and keep the digital natives actively learning in schools” (Trilling & Fadel, 2009, p. 30).

As our schools move towards the 21st century models of learning, technology will be the driving force and key component of this change. As Freidman and Mandelbaum (2011) alert us:

The convergence of globalization and technology will eventually touch everyone. These forces are far larger than any individual. They are ferocious, impersonal, and inescapable…It is incumbent on all of us to understand how these two forces are shaping American lives and what we need to do, individually and as a county, to harness them rather than be steamrolled by them. (p. 56)

**Economic factors.** Funding models and economic systems have immense implications for school districts (Klein, 2013). The global economy affects the national economy, which affects the state economy, which in turn directly affects school district
funding. The economy also affects the job market, which is a paramount concern for students. Ensuring that students are prepared for college and work in the 21st century and that they are competitive in today’s job market is a high priority for school district leaders (Partnership for 21st Century Skills, 2011).

Political factors. Political realities cannot be separated from the others. As the driving forces of globalization and technology reshape the political landscape, they have made politics “more transparent, the world more connected…dictators more vulnerable, and both individuals and small groups more empowered” (Freidman & Mandelbaum, 2011, p. 56). Political realities for school districts include board policies and politics, unions and employment contracts, state politics and party power, and national trends that call for school reform as the pendulum swings. For example, the No Child Left Behind (NCLB) (2001) legislation is considered a political reality that changed the face of education nationwide. Now, the national Common Core State Standards (CCSS) implementation is the next and newest wave of reform.

21st Century Models of Education

One of the primary roles of education is to prepare future citizens to deal with the challenges of their times. Basic skills education prepared citizens for first an agrarian and then an industrial society. New models and frameworks for education in the 21st century began to surface as early as 1990, with the realization that American society was shifting from an industrially based society to an information-based society, requiring “knowledge work” as the primary mode of work (Drucker, 1974; Schlecty, 1990; Trilling & Fadel, 2009). However, the NCLB Act of 2001 ushered in an era of standardized
testing as the measure of school improvement and success. Although well intentioned, NCLB hampered any true innovative approaches to school design.

**The framework for 21st century learning.** The Partnership for 21st Century Skills (P21) was founded in 2002 as a collaborative effort between leaders in education, business, and government to define the 21st century skills that are necessary for success in the 21st century. The resulting *Framework for 21st Century Learning* (Partnership for 21st Century Skills, 2011) was a clear and well-articulated vision for what 21st century learning should be, identifying the gap between the knowledge and skills most students learn in school and the knowledge and skills they need in the 21st century workforce. The framework served as a foundational piece for school reform efforts in this area (Trilling & Fadel, 2009).

The P21 Learning Framework (2011) articulated three broad groups of skills: learning and innovation skills; information, media and technology skills; and life and career skills. These skills are woven through and embedded within the core subjects and learning themes. Learning and innovation skills include critical thinking, communication, collaboration and creativity, which are referred to broadly as “the 4 Cs of 21st century learning, the skills to unlock a lifetime of learning and creative work” (p. 49). Furthermore, these skills are developed most effectively through meaningful learning projects driven by engaging questions and problems. This approach is referred to as either project based learning or inquiry based learning (Holmes, 2012).

**New models of learning.** New research in the science of learning continues to shape and evolve knowledge about how people learn and experience school. Key findings from this research identify authentic learning, mental model building, internal
motivation, multiple intelligences and social learning as the pathways for genuine learning (Bransford, Brown, & Cocking, 1999). Authentic Learning has to do with learning in a real-world context. Internal Motivation comes from well-designed learning projects geared to student interests and patterns, which in turn promote active engagement, deeper understanding and a desire to learn more (Darling-Hammond et al., 2008). Research on multiple intelligence reveals that personalized learning can have a positive effect on learning performance and attitudes towards learning (Gardner, 1999). Social Learning refers to the understanding that the great problems of our times, such as global warming, curing diseases, and ending poverty, cannot be solved without an education that prepares citizens to help solve global problems (Harrison, 2013; Trilling & Fadel, 2009; Wagner, 2012). Such breakthrough results – that is, an educated citizenry who has the necessary skills to be able to solve the global problems of the 21st century – can only be achieved through the implementation of new instructional practices and models in K-12 schools.

**Common core state standards.** The history of testing and accountability mandates and their connection to the political climate as well as the instructional models they foster is well documented in the literature (Jaeger, 2012; Pappas, 2009). For example, the emphasis on rote learning and discrete skills is a result of the testing and accountability mandates of the NCLB legislation enacted in 2001. Thus, the primary focus in schools has been on passing standardized tests based on a core-curriculum that is connected to state standards. Unfortunately, the emphasis on learning discrete content is in direct opposition to the world outside the school walls, where the technological capability to provide instant access to information already exists (Pappas, 2009). As a
means to correct this disconnect, CCSS was adopted by 46 states in the US. Not only do these new standards define the curriculum and skills in detail, but they also specify ways to teach the content creatively and innovatively, to produce graduates who are globally competitive (Jaeger, 2012).

There is a widespread assumption that the implementation of CCSS is the single greatest wake-up call and opportunity for change for many local area school districts (Calkins, Ehrenworth, & Lehman, 2012; Kopp, 2013). Under these new standards, everything from classroom instruction to curriculum and assessment needs to be looked at through a different lens. However, there is a growing body of scholarly research that identifies global, technological, environmental and economic factors as the true catalyst for transformational change in K-12 education for the 21st century (Kay & Greenhill, 2013; Partnership for 21st Century Skills, 2011; Schlechty, 1990; Trilling & Fadel, 2009; Wagner, 2012).

The challenge of state-wide and district-wide mandated implementation of CCSS across all grades K-12 is a concrete part of the larger challenge posed by the pedagogical paradigm shift to 21st century learning. These embedded challenges require strong district leadership in a cohesive transformational change effort to lead, build, and sustain schools of the 21st century (Kay & Greenhill, 2013; Schlechty, 1990). “Simply put, instructional change on a large scale is a tough nut for systems leaders to crack” (Supovitz, 2006, p. 10).
Transformational Change Theory

Throughout the school improvement literature, several definitions of systemic change are used. Reigeluth and Squire (2000) identified four kinds of systemic change used by school districts:

- Statewide policy systemic change is used when creating statewide changes in tests, curricular guidelines, teacher certification requirements, textbook adoptions, funding and other polices that are coordinated to support one another.
- Districtwide systemic change is used to produce changes in curriculum or programs within a school district.
- School wide systemic change is used to create change within individual school sites.
- Ecological systemic change is used when making changes based on interrelationships and interdependencies within a system and between the system and its external environment. Significant change in one part of their system requires changes in other parts of that system. (pp. 143-152)

Duffy (2008) asserted that although the first three definitions apply principles of systemic change, they are not truly systemic, whereas the fourth definition is an example of true systemic change but does not create transformational change. Thus, he added a fifth definition, systemic transformational change. In this definition, the change alters the culture of the organization by changing mindsets and behaviors. Transformational change is deep and pervasive, affects the entire organization, is consciously led and intentional, and occurs over time (Eckel, Hill, & Green, 1998). For the context of school systems, Duffy (2008) adds that for change to be transformational, the school district
must continuously seek an idealized future for itself, and that it must create a new system that is substantially different from the current one.

Anderson and Ackerman Anderson (2010) reasoned that transformational change occurs when the new state of the organization is an unknown target, emerging from visioning, trial and error, and discovery. The new state requires a change in mindset, behaviors and culture. The authors assert that transformational change, depending on how well it is led, can lead either to breakthrough results or a complete breakdown in the organization. “Transformation is a radical shift of strategy, structure, systems, processes, or technology, so significant that it requires a shift of culture, behavior, and mindset to implement successfully and sustain over time” (p. 60). Moreover, for transformational change to occur, a critical mass of stakeholders must demonstrate buy-in and commitment to make the efforts that will co-create a better future for the organization.

In order to document the key elements of the transformational change process, Kezar and Eckel (2002) conducted a case study approach of six institutions undergoing transformational change over four years. The core strategies which emerged were: senior administrative support, collaborative leadership, robust design, staff development, and visible action. It is important that people understand their role in the change process, and that they feel that their efforts are worthwhile. In order for transformational change to occur, people within the organization need to make new meaning, and change the way they perceive their roles, skills, and philosophies (Kezar & Eckel, 2002).

**District Leadership**

Historically, districts have not been considered very effective at facilitating and implementing educational reforms for school improvement (Supovitz, 2006). Marzano &
Waters (2009) referred to the state of education address by then Secretary of Education William Bennett in 1987, when he used the nickname “the blob” to describe public school administration, arguing that administrators soak up resources and resist reform without contributing to student achievement. The effective schools research of the late 1970s and early 1980s focused on school climate, culture and practices, and ignored the school district (DuFour & Marzano, 2011), even alleging that the district office was irrelevant in the development of effective schools (Lezotte, 2008). This view of district-level administrators is pervasive, as districts are described with evocative words and phrases such as “top heavy” if they have many specialized administrators, or “lean” if the central office runs with just a few multifaceted positions.

Leon (2008) summarized, “For decades, school district offices, superintendents and school boards have been cast as ‘villains’ in the drama of school reform and raising student achievement” (p. 46). Bennett, Finn, and Crib (1999) echoed this same theme when they wrote:

The public school establishment is one of the most stubbornly intransigent forces on the planet. It is full of people and organizations dedicated to protecting established programs and keeping things just the way they are. Administrators talk of reform even as they are circling the wagons to fend off change, or preparing to outflank your innovation. (p. 628)

With the radical and transformative changes required in K-12 education by the change forces of the 21st century, however, many researchers have concluded that they need to look beyond improving education one school at a time (Lambert, 2003). As Lezotte (2008) stated:
In time, however, researchers found schools could not remain effective without the support of the central office. A principal and key staff could help a school improve student achievement through heroic effort, but they could not sustain the improvement or survive the departure of key leaders without the support of the district and a commitment at that level to promote effective schooling practices.

(p. 28)

With this new realization, modern researchers have set out to investigate the relationship between effective district leadership and effective districts. As Supovitz (2006) stated, “The district sits at the intersection of state policy and the work of schools” (p. 11).

**Impact of Effective District Leadership**

Marzano and Waters (2009) investigated the strength of relationship between district-level administrative actions and average student achievement in a meta-analysis that examined 14 reports, using data from 1,210 districts. The researchers discovered a positive correlation of .24 that was statistically significant at the .05 level, concluding that “when district leaders are carrying out their leadership responsibilities effectively, student achievement is positively affected” (p. 5). Furthermore, the strategies used by central office leaders to support positive student outcomes in schools throughout a school system have become much more explicit (DuFour & Marzano, 2011).

Epstein, Galindo, and Sheldon (2011) used a quantitative study of 24 districts to study the nature and impact of district and school leadership on family and community engagement. They found that district leaders’ direct facilitation contributes to the quality of school programs more so than school leadership measures. In this study, consistent
district leadership played an important role. Since most available research on effective
district leadership focuses on student achievement, this study is significant in that it
demonstrates that strong and consistent district leadership has a positive impact on other
aspects of the learning community.

**Leadership Behaviors Associated with Positive Student Outcomes**

Leon (2008) summarized the key findings of five studies that investigated the best
practices of district-wide improvement efforts. The five studies Leon analyzed are
Harvard University (2007), Springboard Schools (2006), Marzano and Waters (2006),
Mid-Continent Research for Education and Learning (2006), and The Wallace
Foundation (2005). Leon identified six best practices linked to positive student outcomes
in district-wide reform efforts: leadership, coherence and alignment, human resources,
instructional practices, and balanced autonomy.

Marzano and Waters (2009) identified five specific leadership behaviors
associated with student achievement in the second part of their meta-analysis of 1,210
districts that investigated this relationship. Each of these behaviors was found to have a
statistically significant (p < .05) correlation with positive student achievement. They are:
ensuring collaborative goal setting, establishing nonnegotiable goals for achievement and
instruction, creating board alignment with and support of district goals, monitoring
achievement and instruction goals, and allocating resources to support the goals for
achievement and instruction.

A simultaneous loose-tight leadership, or “defined autonomy,” defines the
relationship between the district office leadership and the individual school site
leadership (DuFour & Marzano, 2011). In this structure, the superintendent holds
principals responsible for the success of their schools, but simultaneously provides flexibility with the boundaries established by the district’s goals. Multiple pathways are allowed and even encouraged, as long as certain essential elements are in place (Marzano & Waters, 2009).

Another way to look at multiple pathways is to consider the differentiation of support to individual schools based on needs. Anderson, Mascall, Stiegelbauer, and Park (2012) examined the behaviors of school district administrators in four urban school districts to determine how they addressed differences in school performance. The study found differences in the orientation and capacity of district leaders across multiple districts, as well as in district strategies used to provide assistance to schools for improvement. A key finding was that district leaders who differentiate assistance actually improve school performance overall. This study verified what DuFour and Marzano (2011) found to be effective as “defined autonomy.”

Supovitz (2006) found that the central job of leaders of an effective organization was to develop, communicate, and support a coherent vision of excellent instruction. He further found that this instructional vision inevitably met with challenges from opposing viewpoints and therefore required tremendous discipline on the part of the superintendent to keep focus on the instructional vision. His third key finding was effective district leaders took the responsibility to build the capacity of teachers and school leaders to enact the district’s instructional vision.

An in-depth analysis of superintendents as instructional leaders was conducted by Cantu (2013) using superintendents of districts with demonstrated academic achievement on standardized tests. The mixed-method study examined the beliefs, perceptions, skills,
leadership styles, and organizational designs of 40 superintendents in Southern California urban school districts. The study found that successful superintendents perceived themselves as individuals who set the tone for the district, were responsible for the collaborative process of district goal-setting, and believed that district-wide instructional planning was important to individual school success.

Clark (2009) conducted a case study of a K-12 rural district that had demonstrated consistent progress on its Annual Yearly Progress (AYP) growth targets over a six year period. Clark focused on the factors in leadership practices that support a rural school district which exceeds academic expectations. Findings from this study indicated that the Superintendent acting as a strong visionary leader positively impacted the academic expectations held by all district stakeholders, leading to a cultural shift.

**Statement of the Research Problem**

The world as we know it has been changing rapidly and profoundly since the turn of the 21st century (Friedman, 2006; Trilling & Fadel, 2009; Wagner, 2012). Citizens across the globe are more connected than ever by technology and have instant access to massive amounts of information with the click of a mouse. Economic swings in one country have massive ripple effects worldwide. There are strains on basic resources – food, water, and energy – such that global cooperation on environmental challenges is essential. The convergence of powerful external change drivers require a fundamental and transformational shift in the role of education, in order to produce students who will have the skills necessary for college, career, and life in the 21st century (Friedman & Mandelbaum, 2011; Kay & Greenhill, 2013; Trilling & Fadel, 2009; Wagner, 2012).
School districts across the nation need transformational leaders capable of leading in times of rapid and profound change. Transformational change is deep and pervasive, affects the entire organization, requires a shift of culture and mindset, is consciously led and intentional, and occurs over time (Anderson & Ackerman Anderson, 2010; Eckel, Hill, & Green, 1998). Transformational leadership is more than just effective leadership for school improvement. Current research shows that district leadership is positively correlated to increased student achievement (Marzano & Waters, 2009; DuFour & Marzano, 2011; Supovitz, 2006; Epstein et. al, 2011). However, this research has focused only on student achievement as measured by standardized assessment. Analyses of district leadership initiatives and strategies have been conducted in districts selected according to their high academic achievement (Leon, 2008; Supovitz, 2006; Marzano & Waters, 2009; DuFour & Marzano, 2011; Cantu, 2013; Clark, 2009; Anderson et. al, 2012). Yet few studies have analyzed superintendent leadership strategies and initiatives in districts that have successfully implemented the transformational paradigm shift towards a model of 21st century learning.

**Purpose Statement**

The purpose of this qualitative study was to describe how superintendents of exemplar 21st century school districts implemented a 21st century model of education in their districts by identifying the change drivers, visions, frameworks of 21st century skills, major initiatives, strategies, and change models used in the implementation of change.

**Research Questions**

The following six research questions guided this study. The first three questions were developed to understand the background and context of the change process by
identifying change drivers, vision, and frameworks of 21st century learning that
influenced each participant. Questions four and five were developed to identify the broad
initiatives and also the more specific management strategies used by the superintendents
during the implementation of 21st century change. The sixth and final question was
developed to understand the superintendents’ perception of the change process itself,
including the process by which they overcame barriers and resistance to change.

1. What factors influenced the decision of superintendents of exemplar 21st
century school districts to begin a change process in their district?

2. What are the visions for their districts held by superintendents of exemplar
21st century school districts?

3. What frameworks and definitions of 21st century teaching and learning were
used in the implementation of change by superintendents of exemplar 21st century school
districts?

4. What major initiatives have superintendents of exemplar 21st century school
districts taken to implement a culture of 21st century learning?

5. What specific operational strategies do superintendents of exemplar 21st
century school districts perceive as being most significant to the transformation of their
school district?

6. What change models do superintendents of exemplar 21st century school
districts use to implement 21st century change?

**Significance of the Study**

Kezar (2001) stated that it is important to develop a common language for 21st
century organizational change, because education must be responsive to an ever-changing
environment. He further stated that key insights into the change process can be gained by comparing and contrasting different approaches to change. This study will add to the literature on effective school district leadership by defining best practices for transforming school district culture to achieve a 21st century model of education.

Current research shows that district leadership is positively correlated to increased student achievement (Marzano & Waters, 2009; DuFour & Marzano, 2011; Supovitz, 2006; Epstein et. al, 2011). Relating this to 21st century change, Kay and Greenhill (2013) concluded, “no school or district is doing real 21st century work today without a strong leader” (p. xiii). The results of this study will have implications for current and future superintendents seeking to implement a 21st century vision for their school districts as a broader framework for implementing CCSS. Additionally, Hoyle and Skrla (1999) reported that a need exists to provide clearer guidelines in the selection of evaluation of superintendents. Therefore, this study may have implications for school boards in superintendent selection and evaluation.

Finally, graduate programs in educational leadership, as well as providers of professional development for superintendents and other district-level leaders may gain a better understanding of the leadership practices necessary for transformational change in 21st century education. In a recent study on superintendent professional development, Platter (2010) found that professional standards related to ethics, vision, and culture are rated as the most important to superintendent success; however, professional development for superintendents does not focus on these standards. The superintendent of today must be an effective change agent, adopting a strong vision as the first step of implementing 21st century change (Kay & Greenhill, 2013; Platter, 2010).
Definition of Terms

21st century skills are defined as certain core competencies needed to be mastered by students in order to be successful in the global workforce of the 21st century (Kay & Greenhill, 2013), identified as critical thinking, communication, collaboration, and creativity. These are also referred to as the “4 Cs” of 21st century skills (Kay & Greenhill, 2013; Partnership for 21st Century Skills, 2009; Trilling & Fadel, 2009).

21st century learning is defined as student outcomes in schools that can be mapped to the 21st century skills in instructional design, delivery and assessment. This includes authentic learning situations in which students apply skills to real-world scenarios (Olsen, 2010; Hughes, 2012).

Exemplar 21st century school districts are defined as districts that have clearly evident practices in six indicators, using the Partnership for 21st Century Skills K-12 Exemplar Evaluation Tool. These indicators include: (a) Commitment to college, career and life readiness, (b) Education support systems and intentional design, (c) Engaging learning approaches, (d) Equitable student access to 21st century learning, (e) Student acquisition of 21st century knowledge and skills, and (f) Partnerships for sustainable success (Partnership for 21st Century Skills, 2011).

Transformational change is defined as a significant and radical shift of strategy, structure, systems, and processes that requires a fundamental change of culture, behavior, and mindset to implement and sustain (Anderson & Ackerman Anderson, 2010).

Transformational leadership is defined as a type of leadership in which the leader consciously inspires, motivates and transforms people and organizations through periods of immense change toward an uncertain future, by utilizing emotion, relationships and
vision to move people toward a greater good (Burns, 1978; McKeen Boyatzis, & Johnston, 2008; Anderson & Ackerman Anderson, 2010).

Superintendent is defined as the person who is the primary leader and decision-maker of a unified K-12, elementary, or union high school public school district, and who oversees all aspects of district operations, acts as the instructional leader, and sets the direction of the district under the supervision of the local governing board (Wagner, 2010).

Major initiatives are defined as the initial bold actions and change efforts required to produce a desired outcome and to demonstrate to the organization that a major change is happening. Multiple initiatives can be integrated and linked into one unified change effort (Anderson & Ackerman Anderson, 2010).

Operational strategies are defined as the specific steps or tasks taken to accomplish the goals of the change effort. These strategies may include budgetary, personnel, instructional, or other operational decisions, and may involve the collection and analysis of data (Chermack, 2011).

Change models are defined as models of change exist in the literature to frame organizational change through a variety of philosophical lenses and typologies (Kezar, 2001).

Delimitations

This study was delimited to superintendents of public school districts in the United States, whose school districts were identified as an exemplar 21st century organizations by the Partnership for 21st Century Skills, according to this organization’s process for evaluating and designating districts as “Exemplar 21st Century Schools and
Districts” and listed in their organization’s database (Partnership for 21st Century Skills, 2011).

This study was further delimited to superintendents who led the transformational change effort in their districts, and whose district became designated as an “Exemplar 21st Century District” as a result of the strategies and initiatives implemented by that superintendent.

Organization of the Study

The remainder of this study is organized into four chapters, a bibliography, and appendices. Chapter II presented a review of the literature related to 21st century skills frameworks and models of learning and the empirical research on 21st century skills and learning. Chapter II also contains a review of the literature related to transformational leadership and the empirical research on the connection between district leadership and effective school districts. Chapter III presents the research design and methodology for the study. It contains a description of the population and sample; sources of data including the semi-structured interview guide; data collection activities; data analysis procedures; and limitations of the study. Chapter IV presents, analyzes, and provides a discussion of the findings of this study. Chapter V presents the summary, conclusions, and recommendations for actions and further research.
CHAPTER II: REVIEW OF THE LITERATURE

The idea of educational reform for the 21st century is by no means a new concept. At least one reference to 21st century learning centers can be found as early as 1969 (Fusaro & Minnesota University, 1969). Literature on systemic educational reform became more prolific in reaction to the appearance of A Nation at Risk (Gardner, 1983) but focused on reversing what was seen as the trend of mediocrity in American Schools (Chaffey, 1997; Sarason, 1990). In the early 1990’s, researchers and writers began to speculate on what schools in the 21st century might need to do differently in order to prepare students for an ever-changing society and what leadership imperatives existed to accomplish such epic educational reform (Schlechty, 1990; National Association of Elementary School Principals, 1990). However, it wasn’t until the 20th century transitioned to the 21st that the effects of the global information technology revolution began to be seen, and the scholarly literature began to reflect the discussion of the transformational change needed to keep K-12 education relevant for the new economic and political realities of the age. Literature also began to reflect the commensurate need for transformational leaders to lead and manage this change (Trilling & Fadel, 2009; Friedman & Mandelbaum, 2011; Kay & Greenhill, 2013; Zhao, 2009; Olsen, 2010).

In this chapter, pertinent literature relative to educational change for the 21st century, district leadership, and the change process was reviewed in order to understand the modern superintendents’ role in implementing major initiatives and strategies that effect district-wide systemic change for 21st century learning. The literature is presented in four areas. The first part provides of summary of literature relative to the major change drivers affecting education and a brief history of the major educational reforms
that have set the stage for 21st century educational changes. The second part presents literature related to the major frameworks of 21st century skills and identifies areas of overlap. The third part reviews the literature related to transformational change models. Finally, literature is reviewed on the implementation of district-wide change initiatives and the superintendents’ role in this implementation. The chapter concludes with a summary.

**Change Drivers Affecting Education in the 21st Century**

Richard Riley, Former Secretary of Education under President Clinton, summed up the challenge of 21st education when he stated, “we are currently preparing students for jobs that don’t yet exist, using technologies that haven’t yet been invented, in order to solve problems we don’t even know are problems yet” (as cited in Trilling & Fadel, 2009). In 2009, Barak Obama echoed this sense of urgency, stating,

In a 21st century world where jobs can be shipped wherever there’s an Internet connection, where a child born in Dallas is now competing with a child in New Delhi, where your best job qualification is not what you do, but what you know, education is no longer just a pathway to opportunity and success, it’s a prerequisite for success. (para. 7)

This notion of a constantly moving and unknown future shifts the burden of education from a content-based to a skill-based emphasis for a labor market centered on knowledge, as the Knowledge Age economy has replaced the Industrial Age economy (Schlechty, 1990; Trilling & Fadel, 2009; Zhao, 2009).
The Knowledge Age

The Knowledge Age is represented by a flat world concept (Friedman, 2006) connected global markets, digital communication and blended cultural traditions. It values data, information, knowledge, expertise, and service-based work over manufacturing and products (Trilling & Fadel, 2009; Bereiter, 2002; Wagner, 2008). Zhao (2009) affirms that “useful knowledge changes as societies change” (p. 135), thus essential knowledge and skills in the 20th century may become irrelevant in modern times. Trilling and Fadel (2009) assured that knowledge work can be done “anywhere by anyone who has the expertise, a cell phone, a laptop, and an Internet connection” (p. 6). This new mix of skills will involve higher and more complex levels of thinking and communicating as well as abstract problem solving, mental flexibility, and environmental and interpersonal adaptability (Autor, Levy, & Murnane, 2003). Zhao (2009) added creativity, multicultural literacy and emotional intelligence to the list of essential skills, arguing for a focus on skills and knowledge that cannot be outsourced to less developed countries or replaced by machines. Figure 1 shows the future of 21st century work as envisioned by the National Center on Education and the Economy (2007).

Trilling and Fadel (2009) noted that knowledge work is done in teams, and that team members often exist in multiple locations using digital devices and services to collaborate. Thus, the merging of two predominant change drivers, globalization and technology, has redefined the value of knowledge and skills for the 21st century (Zhao, 2009). These change drivers will be examined in the following section.
Globalization

Friedman (2006) reported that the world is becoming increasingly interconnected, as technology makes instant, real-time communication possible across the globe. At the same time, economies and governments are becoming increasingly interdependent. Trilling and Fadel (2009) defined globalization as a highly interlinked global and economic ecosystem. Zhao (2009) referred to globalization as the “death of distance resulting from advances in transportation and communication technologies” (p. 99), which allows “the increasing free movement of people, goods and services, information, and money across national border and physical distances that have traditionally limited their movement within political, economic, and geographical boundaries” (pp. 101-102).

This shrinking world has profound implications for education, which has traditionally been a local social institution but which now must prepare students for life in....
a global society. Education must now offer new opportunities and skills that allow students to collaboratively and creatively solve challenging global problems, find jobs in a global job market, and interact with people from different cultures and countries as global citizens (Harrison, 2013; Zhao, 2009; Friedman & Mandelbaum, 2011; Trilling & Fadel, 2009; Wagner, 2008).

**Technology**

Friedman and Mandelbaum (2011) wrote, “The merger of globalization and IT revolution that coincided with the transition from the twentieth to the twenty-first century is changing everything – every job, every industry, every service, every hierarchical institution” (p. 56). Zhao (2009) described the merging of the virtual and the real world as one which cannot be ignored by educators, and states that there are a number of examples in the social, political, and economic realms. “Schools may not be able to ignore the virtual world any longer because the challenges it presents are becoming increasingly real and the consequences increasingly serious” (p. 129). Zhao predicted that the virtual world will become a significant source of jobs in the near future, and that artists who work in the digital domain will be in high demand.

The term “digital natives” refers to the first generation of children to grow up surrounded by and immersed in digital media (Trilling & Fadel, 2009). Digital natives have a new set of expectations for school and for life. They expect to have the freedom to choose what is right for them, customization and personalization, detailed scrutiny, integrity and openness from the organizations that serve them, integration of entertainment and play into work and learning, collaboration, speed in communications and getting information, and innovation in all things (Tapscott, 2009).
Such expectations put new demands on the educational system. “New ways to make learning interactive, personalized, collaborative, creative, and innovative are needed to engage and keep the digital natives actively learning in schools” (Trilling & Fadel, 2009, p. 30). However, Zhao (2009) noted that in spite of the “digital native” label attached to them, most students do not possess the skills and knowledge required for safe and successful living in this new world, nor are most schools teaching them these things.

As schools move towards the 21st century models of learning, technology will be the driving force as well as the key component of 21st century change. Freidman and Mandelbaum (2011) predicted:

The convergence of globalization and technology will eventually touch everyone. These forces are far larger than any individual. They are ferocious, impersonal, and inescapable…It is incumbent on all of us to understand how these two forces are shaping American lives and what we need to do, individually and as a country, to harness them rather than be steamrolled by them. (p. 56)

**New Research on the Science of Learning**

New research in the science of learning continues to shape and evolve knowledge about how people learn and experience school. Key findings from this research identify authentic learning, mental model building, internal motivation, multiple intelligences and social learning as the pathways for genuine learning (Bransford, Brown, & Cocking, 1999). Authentic Learning has to do with learning in a real-world context. Internal motivation comes from well-designed learning projects geared to student interests and patterns, which in turn promote active engagement, deeper understanding and a desire to learn more (Darling-Hammond et al., 2008).
Research on multiple intelligence reveals that personalized learning can have a positive effect on learning performance and attitudes toward learning (Gardner, 1999). Social learning refers to the understanding that the great problems of our times, such as global warming, curing diseases, and ending poverty, cannot be solved without an education that prepares citizens to help solve global problems (Trilling & Fadel, 2009). Such breakthrough results – that is, an educated citizenry who has the necessary skills to be able to solve the global problems of the 21st century – can only be achieved through the implementation of new instructional practices and models in K-12 schools.

**Recent Education Reform in the United States**

Finding better ways to restructure public schools to stay competitive and relevant in an ever-changing society has been a continual challenge for politicians and educational leaders alike (Chaffey, 1997). According to Schlechty (1990), one of the primary roles of education is to prepare future citizens to deal with the challenges of their times. Basic skills education prepared citizens for first an agrarian and then an industrial society. New models and frameworks for education in 21st century began to surface as early as 1990, with the realization that American society was shifting from an industrially based society to an information-based society, requiring “knowledge work” as the primary mode of work (Drucker, 1974; Schlechty, 1990; Trilling & Fadel, 2009).

The history of federal education mandates and their connection to the political climate is well documented in the literature (Pappas, 2009; Jaeger, 2012; Zhao, 2009; DuFour & Marzano, 2011; Center on Education Policy, 1999). Since the launch of the Sputnik by the Russians in 1957, the focus on reforming public education in the US has been a popular theme.
National Defense Education Act (NDEA)

In the early 1960s, politicians called for a greater emphasis on math and science education so that America would not lose the international space race, a misperception about public education referred to as the “missile gap” between the Soviet Union and the US (Zhao, 2009). The Sputnik launch led to the passage of the National Defense Education Act (NDEA) in 1958. NDEA was the first comprehensive federal legislation to provide aid to public education at the national level. Its purpose was to “help America compete with the Soviet Union in scientific and technical fields” by supporting loans for college students and improving science, mathematics, and foreign language instruction (Center on Education Policy, 1999). According to Zhao (2009), NDEA transformed the education landscape of the US, as it marked “the beginning of an increasing involvement of the federal government in education” (p. 23). However, no evidence exists that such investment in the K-12 school system was responsible for the nation’s scientific or technological superiority on a global scale. Although the US experienced significant success in the space race of the 1960s, it would be difficult to imply that NDEA had improved the education system so quickly and effectively.

A Nation at Risk

After the publication of A Nation at Risk in 1983 by the National Commission on Excellence in Education, which exposed the threats from Japan, Korea, and Germany, policy-makers and educational leaders attempted to design and implement reform measures that would reverse the trend of mediocrity in the nation’s schools by “raising standards, increasing rigor, and extending the school day and year (DuFour & Marzano, 2011). A wave of school reform measures marked the era of the 1980s, producing no less
than ten major studies and policy reports that sparked widespread recommendations for establishing minimum competencies, raising college entrance standards, improving basic skills for young children, strengthening graduation requirements, and initiating general programs for students with disabilities and disadvantages (Chaffey, 1997). Although A Nation at Risk did not result in any immediate federal legislation for education, its recommendations survived due the report’s political value, and it laid the foundation for changes in American education in the following decades (Zhao, 2009).

In 1989, President George H. W. Bush convened the nation’s governors for a national summit on education, the purpose of which was to define the goals for American Education for the year 2000, beginning the first major initiative that specifically looked toward the dawning of a new century as an ambitious call for change. In 1994, President Bill Clinton signed into law the Goals 2000: Educate America Act. The eight areas covered under this legislation included school readiness, school completion, student achievement and citizenship, teacher preparation and professional development, mathematics and science, adult literacy and lifelong learning, safe and drug-free schools, and parent participation (Zhao, 2009). However, DuFour and Marzano (2011) reported that “the end of the century came and went and, unfortunately, there was virtually no evidence to suggest that any progress had been made toward these ambitious goals” (p. 12).

No Child Left Behind

The NCLB Act of 2001 ushered in an era of high-stakes standardized testing as the measure of school improvement and success, coupled with serious sanctions for schools that do not perform satisfactorily. Zhao (2009) described NCLB as “undoubtedly
the most significant component of recent education reform efforts in the United States” (p. 2). It required that all states individually develop rigorous standards and standardized tests in math, reading and language, and science. Beyond raising standards and achievement nationwide, a key goal of this legislation was to close the achievement gap between minority students and their white peers.

Although well intentioned, NCLB hampered any true innovative approaches to school design (DuFour & Marzano, 2011). The emphasis on rote learning and discrete skills as a result of the testing and accountability mandates of the NCLB focused school reform primarily on getting students to pass standardized tests based on a core-curriculum that is connected to state standards. Unfortunately, the emphasis on memorizing discrete content is in direct opposition to the world outside the school walls, where the technological capability to provide instant access to information already exists (Pappas, 2009). “By the time Bush left office in 2008, even the original advocates of NCLB concluded it had failed to improve student achievement…NCLB as enacted is fatally flawed and probably beyond repair” (DuFour & Marzano, 2011, p. 12).

**Race to the Top**

In 2009, President Barak Obama and the U.S. Department of Education announced a key education initiative called Race to the Top (RTT) in the form of a competitive grant funding system for states introducing four key areas of reform: development of rigorous standards and assessments; data systems to inform stakeholders about student progress; rigorous interventions for the lowest performing schools; and recruiting, retaining and evaluating highly effective teachers and principals (Boser, 2012). Forty-six states and the District of Columbia applied for the funding, and to date
nineteen states have had grants awarded for a total amount of just over four million dollars.

In the state-by-state report of progress on the grant awardees, Boser (2012) stated that “RTT has sparked significant school reform efforts and shows that significant policy changes are possible” (p. 3). Among these findings were that RTT has advanced the reform effort around the implementation of Common Core and Next Generation standards and new systems of teacher evaluations. The report also found, however, that communication to stakeholders has been inadequate, citing as an example the controversy in the state of New York, in which more than 1,000 principals signed a petition protesting the new teacher evaluation system, and many districts have been unable to reach agreements with their teachers unions. In light of the findings, Boser (2012) recommended that states do far more to build capacity for reform, and improve both communication and collaboration with stakeholders.

**Common Core Standards**

An international achievement gap is often cited as being between U.S. students and their foreign counterparts, using scores on internationally comparative tests such as the Trends in Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA), in which the US has not fared well (Wagner, 2008; Zhao, 2009). Although not directly linked to RTT, the CCSS arose from the federal call for more rigorous standards that will result in students becoming more college and career ready as well as more globally competitive. Moreover, under NCLB, state standards and assessments varied widely. As a means to correct a number of gaps, CCSS have been adopted by 45 states and three territories in the United States.
There is a widespread assumption that the implementation of CCSS as the single greatest wake-up call and opportunity for change for many local area school districts (Calkins, Ehrenworth, & Lehman, 2012; Kopp, 2013). Under these new standards, everything from classroom instruction to curriculum and assessment needs to be looked at through a different lens. However, there is a growing body of scholarly research that identifies global, technological, environmental and economic factors as the true catalyst for transformational change in K-12 education for the 21st century (Schlechty, 1990; Trilling & Fadel, 2009; Partnership for 21st Century Skills, 2009; Kay & Greenhill, 2013; Wagner, 2008).

Currently, the change in schools in most states is being driven by the implementation of the CCSS. The challenge of state-wide and district-wide mandated implementation of CCSS across all grades K-12 is a concrete part of the larger challenge posed by the pedagogical paradigm shift to 21st century learning. These embedded challenges require strong district leadership in a cohesive transformational change effort to lead, build, and sustain schools of the 21st century (Schlechty, 1990; Kay & Greenhill, 2013; Wagner, 2008). With this new sense of urgency, schools are only now beginning to show signs of restructuring to deliver the skills for 21st century learning.

**Major Frameworks for 21st Century Skills**

The effort to define which skills or competencies are essential for success in the 21st century has been international in scope and has intensified rapidly in the last five years. A simple Boolean search on ERIC (all results) for “21st century competencies,” “21st century skills,” or “21st century learning” yields 12 results prior to 2000, 34 results for the period 2000 – 2004, 200 results for the period 2005 – 2009, and 300 results for the
period 2010 – 2014. Indeed, before major changes in curriculum, assessment and pedagogy can be made, these competencies need to be at least generally agreed upon on a national if not international level.

In an extensive literature review, Voogt and Roblin (2012) identified and compared eight major frameworks for 21st century skills. For this dissertation, frameworks dealing exclusively with technological competencies have been eliminated, and four frameworks are discussed: Partnership for 21st Century Skills (P21); enGauge 21st Century Skills for 21st Century Learners; Assessment and Teaching of 21st Century Skills (ATCS); and 21st Century Skills and Competencies for New Millennium Learners in OECD Countries. The terms “21st century skills” and “21st century competencies” are used interchangeably.

**Partnership for 21st Century Skills**

The Partnership for 21st Century Skills Framework was developed in the US in 2002 to create a model of learning that incorporates 21st century skills into the American system of education. P21 is a national private-public organization sponsored by the U.S. government and several organizations from the private sector, including Apple Computer Inc., Cisco Systems, Dell Computer Corporations, Microsoft Corporation, and the National Education Association (Partnership for 21st Century Skills, 2011).

The framework has undergone several iterations in the last decade. At its core it emphasizes that core subjects must still be taught, such as English, reading and language arts, world languages, arts, mathematics, economics, science, geography, history, and government and civics. These core subjects are to be centered around the 21st century themes of global awareness, civic literacy, health literacy, and financial, business, and
entrepreneurial literacy. In addition to core subjects, skills are grouped into three major areas: life and career skills; learning and innovation skills; and information, media, and technology skills. These groups are tied together and woven throughout the pathways of professional development, curriculum and instruction, standards and assessment, and learning environments. The instructional focus is for students to think critically, problem solve, develop innovative solutions and communicate their ideas to others.

Life and career skills are defined by P21 as “the skills needed to navigate a complicated and changing world” (Olsen, 2010, p. 22). These skills include adaptability, initiative, cultural and social literacy, leadership, and accountability.

Figure 2 is the central graphic for the P21 Framework, a rainbow of skills bent firmly around the core curriculum and connected by the four pathways necessary for educational improvement.

**enGauge 21st Century Skills**

The *enGauge 21st Century Skills* framework was developed in 2002 by Cheryl Lemke in conjunction with the North Central Regional Educational Laboratory (NCREL) and the Metiri Group out of Los Angeles, California. Lemke reviewed literature and synthesized eight nationally recognized skill sets to determine the set of 21st century skills in the enGauge framework. The resulting list was an ambitious list of competencies. Within the context of academic achievement, Lemke grouped the essential skills into four broad clusters: digital-age literacy; inventive thinking; effective communication; and high productivity (Lemke, North Central Regional Educational Lab [NCREL], & Metiri Group, 2002).

Digital-age literacy contains basic, scientific and technological literacies, visual and information literacies, and cultural literacy and global awareness. Inventive thinking skills encompass adaptability, the ability to manage complexity, curiosity, creativity, risk-taking, and higher-order thinking and sound reasoning. Under effective communication, Lemke, NCREL and the Metiri Group (2002) lists the skills of teaming, collaboration, interpersonal skills, and personal and social responsibility. Finally, encompassed in the high productivity cluster are the skills of prioritizing and planning, managing, and using real-world tools to produce relevant, high-quality products.

Similar to the P21 framework, Lemke et al. (2002) concludes that content must be learned within the context of 21st century skills and that the demonstration and appropriate assessment of these skills “will ultimately determine whether today’s children will be prepared to live, learn, work, and serve the public good in a digital, global society” (p. 27). Figure 3 is the graphic representation of the enGauge 21st
Century Skills framework, showing that each cluster is given an equal weight and that all are embedded within the context of academic achievement and 21st learning.

Figure 3. Graphic representation of the enGauge for 21st century skills framework. Reprinted from *enGauge 21st Century Skills* (p. 5), by North Central Regional Educational Laboratory & The Metri Group, 2002. Copyright 2003 by the North Central Regional Educational Laboratory and the Metri Group.

Assessment and Teaching of 21st Century Skills (ATC21S)

The Assessment and Teaching of 21st Century Skills project (ATC21S) was a collaborative, multi-stakeholder effort that begun in 2009 involving Australia, Finland, Singapore, and the US, along with major business partners Cisco, Intel, and Microsoft, through the University of Melbourne. The project commissioned a series of white papers on the topic of providing operational definitions of 21st century skills, innovative assessment tasks, and learning environments (Griffin, McGraw, & Care, 2012; Voogt & Roblin, 2012). The project group also maintains a website and a series of webinars and videos.
Much like the other major frameworks discussed previously, the ATC21S project group categorized 21st century skills into four major categories: Ways of thinking; Ways of working; Tools for working; and Skills for living in the world. The Ways of thinking category includes the skills of creativity, critical thinking, problem-solving, decision-making, and learning. Under the category Ways of working, the skill of communication and collaboration are found. The Tools for working category encompasses information and communication technology (ICT) and information literacy. Finally, the Skills for living in the world category includes citizenship, life and career, and personal and social responsibility (Griffin et al., 2012). Two of these skills are given preeminence and are thought to span all four categories: collaborative problem solving and ICT literacy.

Figure 4 provides the graphical representation of the ATC21S Framework, as illustrated in the 2010 project status report.

![Figure 4. Graphical representation of the ATC21S framework. Adapted from Graphical Representation of ATC21S Framework, by P. Griffin, E. Care, and B. McGaw (Eds.), 2012, Assessment and Teaching of 21st Century Skills. DOI 10.1007/978-94-007-2324-5_1. Copyright 2012 by Springer Science+Business Media B.V.](image-url)
21st Century Skills and Competencies for New Millennium Learners

21st Century Skills and Competencies for New Millennium Learners was an initiative undertaken by the Organization for Economic Cooperation and Development (OCED) and was originally presented at the international conference on 21st century competencies in Brussels in 2009 (Voogt & Roblin, 2012; Ananiadou & Claro, 2009). The significance of this particular project was that its purpose was to define competencies to be used as a theoretical foundation for the Programme for International Student Assessment (PISA). Research reviewed for this project included the work done by P21 and ATC21S, using its stated working definition of 21st century skills as follows: “those skills and competencies young people will be required to have in order to be effective workers and citizens in the knowledge society of the 21st century” (Ananiadou & Claro, 2009, p. 8).

For this framework, the competencies are conceptualized in three categories: information, communication, and ethics and social impact. Each category also has sub-dimensions. The information category includes both information as source and information as product. As a source, information requires the skills of searching, selecting, evaluating, and organizing. As a product, it requires a different skill set: restructuring and modeling information, and developing original ideas. The student can “transform and develop information in a variety of ways to understand it better, communicate it more effectively to others, and develop interpretations of one’s own ideas” (Annaniaduo & Claro, 2009, p. 9). The authors note that creativity, innovation, problem-solving and decision-making are required skills when developing one’s own thinking.
The *communication* skill category is sub-divided into effective communication, collaboration, and virtual interaction. In this area, the framework clearly demonstrates an understanding of the role of technology in communication. “Participation in the digital culture depends on the ability to interact in virtual groups of friends and groups of interest, where young people are capable of using applications fluently and on a daily basis” (Annaniaduo & Claro, 2009, p. 10). Specific skills included in this dimension are flexibility, adaptability, and teamwork.

The third group of skills in this framework is *ethics and social impact*. This dimension is sub-divided into social responsibility and social impact. By including this category of skills, the framework implies that individuals’ actions can have either a positive or a negative impact on the society at large; therefore, the development of consciousness about the challenges presented in the digital age is an essential task. “There is consensus that the huge impact of ICT on social life is a matter that young people should reflect upon” (Annaniaduo & Claro, 2009, p. 11). Skills and competencies having to do with ethics and social impact are often referred to as digital citizenship (Annaniaduo & Claro, 2009; Trilling & Fadel, 2009; Ribble & Bailey, 2007).

A key finding of the OECD research was that the introduction and development of 21st century skills has most often been done in the context of a major curriculum reform. Additionally, the researchers found a clear lack of assessment policies for these skills, as well as few teacher training programs that target the teaching or development of 21st century skills (Annaniaduo & Claro, 2009).
Synthesis and Analysis of Major Frameworks

Common threads run throughout each framework. All of the frameworks identify similar skills or competencies, although skills may be named differently. Differences between frameworks arise largely from the system of categorizing and grouping the skills, as well as from the importance attributed to them. These categories are different in emphasis based on the lines of reasoning of the particular research group. The major frameworks consistently agree on the need for skills in the areas of communication, collaboration, ICT literacy, and social and cultural literacy. Creativity, critical thinking, problem solving, and the ability to produce relevant and high-quality products are also selected by most frameworks as important skills in the 21st century while references to core content and curriculum can only be found explicitly in the P21 and ATC21S frameworks.

Although the discussion of frameworks in this dissertation excluded those that dealt exclusively with technological competencies, ICT features prominently in each of the major frameworks for 21st century skills. The development of technology is not only widely regarded as a driver for the need for new skills in all frameworks, but it is also linked to a whole new set of competencies dealing with how to effectively use, manage, evaluate, and produce information across different types of media (Voogt & Roblin, 2010).

The conceptualization of 21st century skills in the different frameworks is shown in Table 1, which provides an overview of those skills mentioned by all frameworks, using the same or comparable terminology.
The research literature on 21st century skills frameworks points toward the larger needs for major reforms in curriculum and assessment, teacher training, and systemic cultural thinking in education. Thus, there is a clear gap between the conceptualization of these skills within frameworks and the instruction and assessment of these skills within the context of 21st century skills. In order to fill this gap, transformation models of change are called for. An overview of the change models found in educational and organizational literature will be presented next.

Table 1

Conceptualization of 21st Century Skills in Four Major Frameworks

<table>
<thead>
<tr>
<th>P21 Learning and Innovation Skills</th>
<th>enGauge Inventive Thinking</th>
<th>ATC21S Ways of Thinking</th>
<th>OECD ---</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Creativity and Innovation</td>
<td>2. Curiosity, creativity and risk-taking</td>
<td>2. Critical thinking, problem solving, decision making</td>
<td>---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effective Communication</th>
<th>Ways of Working</th>
<th>Interacting in Heterogeneous Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>----</td>
<td>1. Teaming, collaborating and interpersonal skills</td>
<td>1. Communicating</td>
</tr>
<tr>
<td>----</td>
<td>2. Personal, social and Civic responsibility</td>
<td>2. Collaborating</td>
</tr>
<tr>
<td>----</td>
<td>3. Interactive communication</td>
<td>----</td>
</tr>
</tbody>
</table>

Information, Media and Technology Skills

<table>
<thead>
<tr>
<th>Digital-Age Literacy</th>
<th>Tools for Working</th>
<th>Using Tools Interactively</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information literacy</td>
<td>1. Information literacy</td>
<td>1. Use language, symbols and text interactively</td>
</tr>
<tr>
<td>2. Media literacy</td>
<td>2. ICT literacy</td>
<td>2. Use knowledge and information interactively</td>
</tr>
</tbody>
</table>

### Table 1

**Conceptualization of 21st Century Skills in Four Major Frameworks**

<table>
<thead>
<tr>
<th>P21, enGauge, ATC21S, OECD</th>
<th>Information, Media and Technology Skills</th>
<th>Life and Career Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3. Technology literacy</strong></td>
<td>3. Multicultural literacy and global awareness</td>
<td>3. Use technology interactively</td>
</tr>
<tr>
<td><strong>Life and Career Skills</strong></td>
<td>High Productivity</td>
<td>Living in the World</td>
</tr>
<tr>
<td><strong>1. Flexibility and adaptability</strong></td>
<td>1. Prioritizing, planning and managing for results</td>
<td>1. Citizenship-local and global</td>
</tr>
<tr>
<td><strong>2. Initiative and self-direction</strong></td>
<td>2. Effective use of real world tools</td>
<td>2. Life and career</td>
</tr>
<tr>
<td><strong>3. Social and cross-cultural skills</strong></td>
<td>3. Ability to produce relevant, high-quality products</td>
<td>3. Personal and social responsibility (including cultural awareness and competence)</td>
</tr>
<tr>
<td><strong>4. Productivity and accountability</strong></td>
<td><strong>5. Leadership and responsibility</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Core Subjects</strong></td>
<td><strong>Core Curriculum</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1. English, reading or language</strong></td>
<td></td>
<td>1. Home language</td>
</tr>
<tr>
<td><strong>2. Foreign languages</strong></td>
<td></td>
<td>2. Mathematics</td>
</tr>
<tr>
<td><strong>3. Arts</strong></td>
<td></td>
<td>3. History</td>
</tr>
<tr>
<td><strong>4. Mathematics</strong></td>
<td></td>
<td>4. Arts or Humanities</td>
</tr>
<tr>
<td><strong>5. Economics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7. Geography</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>8. History</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>9. Government and civics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interdisciplinary Themes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Global awareness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Financial, economic, business and entrepreneurial literacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Civic literacy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Health literacy and environmental literacy</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### Models of Organizational Change

Multiple models of change exist in the literature to frame organizational change through a variety of philosophical lenses and typologies. According to Kezar (2001),
models are helpful for assessing change at the macro level at which many institutional leaders view their organizations. Models can also reveal three important aspects of change: why the change occurred in terms of the driving forces of the change, how it occurred in terms of change process, and what change occurred in terms of content and outcomes.

In an analysis of organizational change models, Adhikari (2007) identified and analyzed 15 different change models, which he organized into a framework of four major typologies: rational, developmental, political and evolutionary. Kezar (2001) offered a similar typology, but with six groups: evolutionary, teleological, life cycle, political, social cognition, and cultural. Both analysts base their work on Van de Ven and Poole (1995).

Figure 5 reflects the Adhikari typology. The two axes are based on continuums that form a quadrant system, depending on whether the change occurs top-down, bottom-up, strategically, or inevitably by the organization’s own inertia. The 15 models reviewed by Adhikari and their typologies are listed in Table 2.

Figure 5. Typology of organizational change form. Adapted from Organizational Change Models: A Comparison, by. H. Adhikari, 2007. Available at SSRN 1016981.
## Table 2

**Organizational Change Models Classified Using Adhikari’s Typology**

<table>
<thead>
<tr>
<th>Organizational Change Model</th>
<th>Overview</th>
<th>Typology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Structural Inertia Model</td>
<td>Weight organizational capabilities vs. the inertia of the structure</td>
<td>Developmental</td>
</tr>
<tr>
<td>(Hannan &amp; Freeman, 1984)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Kurt Lewin’s Equilibrium Model</td>
<td>Unfreeze- Change- Refreeze</td>
<td>Rational</td>
</tr>
<tr>
<td>(Kurt Lewin, 1951)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. System’s Approach Model</td>
<td>Systems analysis – Act of change external environment</td>
<td>Evolutionary</td>
</tr>
<tr>
<td>4. Open System’s Planning Model</td>
<td>System is closely linked to the external environment</td>
<td>Evolutionary</td>
</tr>
<tr>
<td>5. Macro Process Model</td>
<td>Creates a continuous improvement mindset with focus on measurement and data</td>
<td>Evolutionary</td>
</tr>
<tr>
<td>6. Constant Adaptation Model</td>
<td>Encourages employees to initiate change</td>
<td>Political or Evolutionary</td>
</tr>
<tr>
<td>7. Kubler – Ross Model</td>
<td>Identifies human emotional Response to change over time</td>
<td>Rational</td>
</tr>
<tr>
<td>8. Gleicher’s Formula</td>
<td>Dissatisfaction x vision x first Steps &gt; resistance to change</td>
<td>Rational</td>
</tr>
<tr>
<td>9. ADKAR Model</td>
<td>Awareness, desire, knowledge, ability, reinforcement</td>
<td>Developmental</td>
</tr>
<tr>
<td>12. POMC Model</td>
<td>Planning – Organizing – Controlling Motivating</td>
<td>Rational or Political</td>
</tr>
<tr>
<td>13. Transformational Leadership</td>
<td>Aligns individual and organizational interests</td>
<td>Rational, Developmental, or Evolutionary</td>
</tr>
<tr>
<td>14. Cultural Indicator Tree Model</td>
<td>Identify core beliefs and values</td>
<td>Developmental</td>
</tr>
<tr>
<td>15. Appreciative Inquiry</td>
<td>Discover the positive change core</td>
<td>Rational</td>
</tr>
</tbody>
</table>


Anderson (2012) offered a simpler typology by dividing change models into two major ways of thinking about organizations: those that reflect the *organization-as-system*
model and those that reflect \textit{organization-as-socially-constructed} model. Change varies according to whether it is planned or unplanned, first-order or second-order, and episodic or continuous. Second order change reflects labels in the literature such as \textit{transformational} rather than \textit{transactional} and \textit{revolutionary} rather than \textit{evolutionary}. Such major underlying assumptions affect how organizational change is managed and understood. Therefore, leaders must be conscious and intentional about the choices they make when adopting an intervention or model for organizational change (Anderson, 2012).

\textbf{Organizations as Systems}

Katz and Kahn (1966) first adapted the idea of interconnected systems in living organisms to organizational theory, reflecting a system of inputs, transformative processes, and outputs guided by continual feedback (as cited in Anderson, 2012). Feedback processes can include inventory, sales rates, and revenue. The system maintains balance and equilibrium through forces of supply and demand. According to Anderson (2012) systems theory has been a popular approach to understanding organizations and change, because it provides a “commonsense explanation for how organization and their subsystems seem to us to work” (p. 66). The value of systems theory for the organizational leader is that it allows him or her to target appropriate places to being interventions and to be more deliberate about predicting possible negative outcomes of change. Change models consistent with a systems theory approach are identified in Table 3.
Table 3

*Change Models Consistent with a Systems Theory Approach*

<table>
<thead>
<tr>
<th>Model</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lewin’s Force Field Analysis</td>
<td>Unfreeze – move – refreeze</td>
</tr>
<tr>
<td>3. Burke – Litwin Model of Organizational</td>
<td>A more complex loop of inputs, processes, and outputs. Includes factors</td>
</tr>
<tr>
<td>Performance and Change</td>
<td>of culture, motivation and leadership</td>
</tr>
<tr>
<td>4. Weisbord’s Six-Box Model</td>
<td>Leadership at the center – Purposes – Structure – Rewards –</td>
</tr>
<tr>
<td></td>
<td>Helpful mechanisms – Relationships in a cycle around it.</td>
</tr>
</tbody>
</table>


**Organizations as Socially Constructed**

The idea of social constructivism can be traced to Berger and Luckmann’s (1967) seminal work *The Social Construction of Reality* (as cited in Anderson, 2012). This view argues that organizations are not mere formal structures; rather, they are concepts created, developed, and infused with meaning out of the language and actions of its members. It is process and perspective. The boundary between the organization and its external environment is not clearly defined. Anderson (2012) stated:

> The social construction perspective fills the missing elements of systems theory to provide a richer and more dynamic view of how organizations work. It describes how members experience organizations as social environments where interaction is fundamentally how work is accomplished and sensemaking is how it is understood and experienced. (p. 78)
Additionally, the structured machine-like view of organizations seems less accurate in the context of the globalized organizations of the 21st century. The social construction perspective emphasizes the importance of communication in creating change.

Ford and Greer (2005) investigated the process of planned change in an empirical context. Planned change in this study referred to a “premeditated, agent-facilitated intervention intended to modify organizational functioning for a more favorable outcome” (p. 59). This perspective of change mainly reflects the rational or teleological approach (Van de Ven & Poole, 1995; Adhikari, 2007; Kezar, 2001). Data was gathered from 107 managers involved in the implementation of planned change.

Using five implementation and outcome variables selected from models by Kotter (1995), Burke and Litwin (1992), and Nadler and Tushman (1980) that featured prominently in change literature, the researchers measured outcomes in terms of various change model variables. Results of the study showed that a high-level change process construct using a non-linear, complex approach to planned change produced stronger outcomes than more sequential, linear approaches. This study supports a more complex view of change and a use of change models that are uniquely tailored to the organization. “Such a perspective is intuitively appealing since it emphasizes the uniqueness by which each organization might approach the implementation problem” (Ford & Greer, 2005, p. 66).

Schaffer and McCreight (2004) further supported the idea of organizational uniqueness and the rejection of a one-size-fits-all change model. “Leaders can adopt ideas that have worked elsewhere, but they need to create their own one-of-a-kind change
model through experimentation, learning, blueprint creation, and most of all a strong focus on results” (p. 33). Citing the results of a landmark Harvard Business School study conducted by Beer, Eisenstat, and Spector (1990) who conceded that organizational change efforts based on structured programs failed to bring about the planned change, Schaffer and McCreight set out to create instead a menu for creating a customized change model based on the needs of one’s organization.

A brief review of the literature on systemic change models specific to education is presented in the next section.

**Literature on Systemic Change in Education**

Ellsworth (2000) conducted an in-depth review of change literature relevant to education and a survey of educational change models. Ellsworth set the foundation of his work on systems theory and did not consider social construction theory as part of his extensive work. Literature on the educational change process flourished in the 1990s, with books such as Fullan and Stiegelbauer’s (1991) *The New Meaning of Educational Change*, Reigeluth and Garfinkle’s (1994) *Systemic Change in Education*, Jerrold Kemp’s (1995) *A School Changes*, and Salisbury’s (1996) *Five Technologies for Educational Change*. Ellsworth’s work built on this foundation of educational change typologies with an attempt at synthesis in his *Change Communication Model*, which featured a change agent pushing an innovation into the system toward an intended adopter. At this time, the idea of systemic change in education was a fresh perspective and a departure from the classical camps. Ellsworth’s work is significant in that it synthesized the work of the prior writers, called for a system-wide approach to innovative change, and set the stage for the 21st century in education.
At the same time, Fullan (2000) began to write about large scale educational reform strategies, stating in his introduction, “These are complex and exciting times for educational reformists” (p. 5). Fullan (2001) first referred to constructivism in the third edition of *The New Meaning of Educational Change*,

An enormous amount has happened in the decade since the last edition for example, advances in cognitive science make meaning the foundation for the new pedagogy of constructivism. Chaos or complexity theory leads us inevitably to the conclusion that working on “coherence” is the key to dealing with the fragmented demands of overloaded reform agendas. (p. xii)

By the time of the publication of the fourth edition of this book in 2007, Fullan had begun to use the language and assumptions of the organization as socially-constructed. In this edition he called for “strong, actionable concepts in combination: capacity building, learning in context…sustainability, and systems leaders in action – leaders at all levels engaged in changing the system, changing their own context” (p. xii ).

**First Order versus Second Order Change**

In their work on school leadership, Marzano, Waters, and McNulty (2005) delineated the differences between first-order change and second-order change in order to specify the skills and strategies needed for effective leadership in each type of change. In this dichotomous model, first-order change is perceived as an extension of the past that fits within existing paradigms, whereas second-order change is perceived as a break with the past that lies outside existing paradigms. Second-order change can also be described as transformational change (Duffy, 2008; Anderson & Ackerman Anderson, 2010).

Table 4 presents the six major characteristics of each level of change.
Table 4

*Characteristics of First-Order and Second-Order Change*

<table>
<thead>
<tr>
<th>First-Order Change</th>
<th>Second-Order Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived as an extension of the past</td>
<td>Perceived as a break with the past</td>
</tr>
<tr>
<td>Fits within existing paradigms</td>
<td>Lies outside existing paradigms</td>
</tr>
<tr>
<td>Consistent with prevailing values and norms</td>
<td>Conflicts with prevailing values and norms</td>
</tr>
<tr>
<td>Can be implemented with existing knowledge and skills</td>
<td>Requires the acquisition of new knowledge and skills</td>
</tr>
<tr>
<td>Requires resources currently available to those implementing</td>
<td>Requires resources currently not available to those implementing</td>
</tr>
<tr>
<td>May be accepted because of common agreement that innovation is necessary</td>
<td>May be resisted because only those who have a broad perspective of the situation see innovation as necessary</td>
</tr>
</tbody>
</table>


Reigeluth and Squire (2000) identified four kinds of systemic change used by school districts: statewide policy systemic change is used when creating statewide changes in tests, curricular guidelines, teacher certification requirements, textbook adoptions, funding and other polices that are coordinated to support one another; districtwide systemic change is used to produce changes in curriculum or programs within a school district; school wide systemic change is used to create change within individual school sites; ecological systemic change is used when making changes based on interrelationships and interdependencies within a system and between the system and its external environment. Significant change in one part of their system requires changes in other parts of that system (pp. 143-152).
Duffy (2008) asserted that although the first three definitions apply principles of systemic change, they are not truly systemic, whereas the fourth definition is an example of true systemic change but does not create transformational change. Thus, he added a fifth definition, systemic transformational change. In this definition, the change alters the culture of the organization by changing mindsets and behaviors. Transformational change is deep and pervasive, affects the entire organization, is consciously led and intentional, and occurs over time (Eckel, Hill, & Green, 1998). For the context of school systems, Duffy (2008) adds that for change to be transformational, the school district must continuously seek an idealized future for itself, and that it must create a new system that is substantially different from the current one.

Anderson and Ackerman (2010) reasoned that transformational change occurs when the new state of the organization is an unknown target, emerging from visioning, trial and error, and discovery. The new state requires a change in mindset, behaviors and culture. The authors assert that transformational change, depending on how well it is led, can lead either to breakthrough results or a complete breakdown in the organization. “Transformation is a radical shift of strategy, structure, systems, processes, or technology, so significant that it requires a shift of culture, behavior, and mindset to implement successfully and sustain over time” (p. 60). Moreover, for transformational change to occur, a critical mass of stakeholders must demonstrate buy-in and commitment to make the efforts that will co-create a better future for the organization.

In order to document the key elements of the transformational change process, Kezar and Eckel (2002) conducted a case study approach of six institutions undergoing transformational change over four years. The core strategies which emerged were: senior
administrative support, collaborative leadership, robust design, staff development, and visible action. It is important that people understand their role in the change process, and that they feel that their efforts are worthwhile. In order for transformational change to occur, people within the organization need to make new meaning, and change the way they perceive their roles, skills, and philosophies (Kezar & Eckel, 2002).

In a mixed-methods study on rapid transformation in organizational change, Wolf (2011) researched twelve organizations identified as high performers, conducting 150 individual interviews with leadership, 64 focus groups, 800 staff level interviews, and 2000 surveys. This research identified seven characteristics of transformational change: visionary leadership, consistent and effective communication, selecting for fit and providing ongoing staff development, maintaining an agile and open culture, ensuring that service is job one, supporting community involvement, and creating solid relationships. The researcher also found that organizations able to sustain high performance during change are both agile and consistent, acting with clarity in purpose, a determination and resolute focus on a desired result, and a commitment to positive change and continuous improvement.

**The Role of the Superintendent in Implementing Change**

The review of change models and systems of change presented in this literature review is based on the assumption that choosing a model is not an arbitrary choice, but rather an ideological one. “The assumptions we make about change are also assumptions about the nature of reality and people” (Kezar, 2001, p. 25). In the case of systemic, district wide educational change, these assumptions and choices are made most often by
the superintendent. A review of the literature with respect to the role of the superintendent in acting as the systems leader and change agent is presented next.

**Historical Perceptions of the Superintendency**

Historically, districts have not been considered very effective at facilitating and implementing educational reforms for school improvement (Supovitz, 2006). Marzano & Waters (2009) referred to the state of education address by then Secretary of Education William Bennett in 1987, when he used the nickname “the blob” to describe public school administration, arguing that administrators soak up resources and resist reform without contributing to student achievement. The effective schools research of the late 1970s and early 1980s focused on school climate, culture and practices, and ignored the school district (DuFour & Marzano, 2011), even alleging that the district office was irrelevant in the development of effective schools (Lezotte, 2008). This view of district-level administrators is pervasive, as districts are described with evocative words and phrases such as “top heavy” if they have many specialized administrators, or “lean” if the central office runs with just a few multifaceted positions.

Leon (2008) summarized, “for decades, school district offices, superintendents and school boards have been cast as ‘villains’ in the drama of school reform and raising student achievement” (p. 46). Bennett, Finn, & Crib (1999) echoed this same theme when they wrote:

> The public school establishment is one of the most stubbornly intransigent forces on the planet. It is full of people and organizations dedicated to protecting established programs and keeping things just the way they are. Administrators
talk of reform even as they are circling the wagons to fend off change, or preparing to outflank your innovation. (p. 628)

With the radical and transformative changes required in K-12 education by the change forces of the 21st century, however, many researchers have concluded that they need to look beyond improving education one school at a time (Lambert, 2003). As Lezotte (2008) stated:

In time, however, researchers found schools could not remain effective without the support of the central office. A principal and key staff could help a school improve student achievement through heroic effort, but they could not sustain the improvement or survive the departure of key leaders without the support of the district and a commitment at that level to promote effective schooling practices. (p. 28)

With this new realization, modern researchers have set out to investigate the relationship between effective district leadership and effective districts. As Supovitz (2006) stated, “the district sits at the intersection of state policy and the work of schools” (p. 11).

The Superintendent as Systems Leader and Change Agent

Suppovitz (2006) stated that school districts, which are geared toward sustained system wide improvement of instruction and achievement, are fundamental to pervasive educational change in the twenty-first century and that as such, they “remain the best hope for enhancing the quality of teaching and learning for the next generation of Americans” (p. 219). Furthermore, superintendents are the primary agents in the planning and implementation of second-order organizational changes, which bring about
new goals and structures and transform familiar ways of doing things (Ireh & Bailey, 1999; Portis & Garcia, 2007; Marzano & Waters, 2009; Schlechty, 2002). Ireh and Bailey (1999) concluded:

It is apparent that given the complex demands that government mandates, interest groups, boards of educations, the community, parents, and students thrust upon schools, superintendents will have to assume a major leadership role in planning and implementing change programs. To be successful, school leaders must be prime movers of ideas and facilitators of change, as well as those who can create climates which encourage the anticipation of and response to external pressure. (p. 22)

The Stupski Foundation sought to gain deeper insight into superintendents as leaders of change in a study during the 2005-2006 school year. Fifteen superintendents were interviewed and asked to describe the work of district reform. The study found that all of the superintendents characterized district reform as “difficult work in largely uncharted territory with insufficient resources” (Portis & Garcia, 2007, p. 18). Yet most superintendents also said they were driven by a moral imperative for change, usually connected to a deep commitment to equity and social justice. This moral imperative was found to be both a critical motivating factor and also a source of resiliency for overcoming organizational resistance to change (Portis & Garcia, 2007).

The Superintendent - Principal Relationship

The relationship between principals and superintendents was also discussed in the literature surrounding effective district leadership as a key factor in work of district reform (Schlechty, 2002; Marzano et al., 2009; Suppovitz, 2006; Dufour & Marzano,
Schlechty (2002) maintained that more than any other factor, this critical relationship explains the ability of school districts to ensure that change efforts are sustained and that the positive effects are distributed throughout the system.

A simultaneous loose-tight leadership, or “defined autonomy,” defines the relationship between the district office leadership and the individual school sight leadership (DuFour & Marzano, 2011). In this structure, the superintendent holds principals responsible for the success of their schools, but simultaneously provides flexibility with the boundaries established by the district’s goals. Multiple pathways are allowed and even encouraged, as long as certain essential elements are in place (Marzano & Waters, 2009).

Another way to look at multiple pathways is to consider the differentiation of support to individual schools based on needs. Anderson, Mascall, et al. (2012) examined the behaviors of school district administrators in four urban school districts to determine how they addressed differences in school performance. The study found differences in the orientation and capacity of district leaders across multiple districts, as well as in district strategies used to provide assistance to schools for improvement. A key finding was that district leaders who differentiate assistance actually improve school performance overall. This study verifies what DuFour and Marzano (2011) found to be effective as “defined autonomy.”

Schlechty (2002) described this relationship as shared authority versus delegated authority. He maintains that while the exercise of moral authority is required for second-order change, moral authority can be shared but not delegated. Thus, the relationship between the superintendent and the principals is critical. “Superintendents who give
priority to finding ways of establishing and maintaining direct and vital links to building principals are much more effective at moving districtwide reform than are superintendents who rely on traditional patterns of delegation, command, and control” (Schlechty, 2002, p. 71).

Lambert (2003) preferred the term “organizational reciprocity” as opposed to a “loose” (decentralized) or “tight” (centralized) system. She defined organizational reciprocity as “a dynamic of mutual responsibility characterized by shared vision, leadership, learning, expectations, and resources” (p. 84). Using this concept, regardless of the name used to describe it, solves the paradox of the dual nature of district leadership, which requires a superintendent to maintain a high leadership capacity district, while simultaneously nurturing leadership capacity in school principals (Lambert, 2003; Schlechty, 2002).

The Significance of Vision

The clear articulation and communication of a shared district vision was found throughout the literature on change leadership, as both a key strategy (Kay & Greenhill, 2013; Marzano & Waters, 2009; Portis & Garcia, 2007) and as a key element in defining the role of the superintendent with respect to district reform.

Supovitz (2006) found that the central job of leaders of an effective organization was to develop, communicate, and support a coherent vision of excellent instruction. He further found that this instructional vision inevitably met with challenges from opposing viewpoints and therefore required tremendous discipline on the part of the superintendent to keep focus on the instructional vision. His third key finding was effective district
leaders took the responsibility to build the capacity of teachers and school leaders to enact the district’s instructional vision.

An in-depth analysis of superintendents as instructional leaders was conducted by Cantu (2013) using superintendents of districts with demonstrated academic achievement on standardized tests. The mixed-method study examined the beliefs, perceptions, skills, leadership styles, and organizational designs of 40 superintendents in Southern California urban school districts. The study found that successful superintendents perceived themselves as individuals who set the tone for the district, were responsible for the collaborative process of district goal-setting, and believed that district-wide instructional planning was important to individual school success.

Clark (2009) conducted a case study of K-12 rural district that had demonstrated consistent progress on its Annual Yearly Progress (AYP) growth targets over a six year period. Clark focused on the factors in leadership practices that support a rural school district which exceeds academic expectations. Findings from this study indicated that the Superintendent acting as a strong visionary leader positively impacted the academic expectations held by all district stakeholders, leading to a cultural shift.

The Stupski Foundation study (2007) also found that superintendents who had successfully led district reform shared certain key characteristics (Portis & Garcia, 2007). Such leaders were found to be tenacious, persistent, and consistent in their focus on results, passionate, relentless, and courageous. Moreover, such leaders understand the politics of leadership and are knowledgeable about system dynamics. Lastly, the study found that leaders who are change agents attract strategic partners and develop peer networks.
Initiatives and Strategies Linked to Districtwide Change

A review of empirical research on district-led strategies revealed a positive relationship between specific strategies and change outcomes. Marzano and Waters (2009) investigated the strength of relationship between district-level administrative actions and average student achievement in a meta-analysis that examined 14 reports, using data from 1,210 districts. The researchers discovered a positive correlation of .24 that was statistically significant at the .05 level, concluding that “when district leaders are carrying out their leadership responsibilities effectively, student achievement is positively affected” (p. 5). Furthermore, the strategies used by central office leaders to support positive student outcomes in schools throughout a school system have become much more explicit (DuFour & Marzano, 2011).

Epstein et al. (2011) used a quantitative study of 24 districts to study the nature and impact of district and school leadership on family and community engagement. They found that district leaders’ direct facilitation contributes to the quality of school programs more so than school leadership measures. In this study, consistent district leadership played an important role. Since most available research on effective district leadership focuses on student achievement, this study is significant in that it demonstrates that strong and consistent district leadership has a positive impact on other aspects of the learning community.

Leadership Behaviors Associated with Positive Student Outcomes

Leon (2008) summarized the key findings of five studies that investigated the best practices of district-wide improvement efforts: Harvard University (2007), Springboard Schools (2006), Marzano and Waters (2006), Mid-Continent Research for Education and
Learning (2006), and The Wallace Foundation (2005). Leon identified six best practices linked to positive student outcomes in district-wide reform efforts: leadership, coherence and alignment, human resources, instructional practices, and balanced autonomy.

Marzano and Waters (2009) identified five specific leadership behaviors or strategies associated with student achievement in the second part of their meta-analysis of 1,210 districts that investigated this relationship. Each of these behaviors was found to have a statistically significant ($p < .05$) correlation with positive student achievement. They are: ensuring collaborative goal setting, establishing nonnegotiable goals for achievement and instruction, creating board alignment with and support of district goals, monitoring achievement and instruction goals, and allocating resources to support the goals for achievement and instruction.

**Strategies to Support the Implementation of 21st Century Learning**

Using the Partnership for 21st Century Skills Framework, Kay and Greenhill (2013) released a leadership guidebook for system-wide implementation using seven steps that can be applied either in a school or a district setting. Although intended to be very specific for the P21 change initiative, these steps would be prudent strategies to follow in any system-wide change initiative. In order, these seven steps are: adopt a 21st century vision; create a community consensus around this vision; align the system using the MILE Guide self-assessment tool; build professional capacity; focus the curriculum and assessment around the Four Cs of the P21 skills framework (collaboration, communication, critical thinking, creativity); motivate and support teachers, and create a culture that supports continuous improvement.
As an integral part of this work, Kay and Greenhill (2013) created the MILE Guide (Milestones for Improving Learning and Education) as a self-assessment rubric so that leaders could place their organizations on a continuum from early stage to transitional state, to 21st century exemplar. The authors also founded a national consortium of school and district leaders committed to using this strategic model to effect 21st century change in their organizations. This organization is named Ed Leader 21 and meets annually to share best practices.

The Stupski Foundation study (2007) found that superintendents who had been successful in implementing district reform employed the following eight strategies: articulate the vision; set realistic expectations; engage the board of education; involve the union; think systemically; focus on instruction; use data; and shift the reality. In this last strategy, superintendents use small wins as a motivator to demonstrate that change is attainable (Portis & Garcia, 2007).

As part of their review and analysis of 21st century frameworks, Voogt and Roblin (2010) convened an expert team to recommend clear strategies on how to support teachers and students in adopting the new roles that the implementation of 21st century skills demands. Six strategies were recommended: create awareness about the importance of 21st century skills, develop a framework for 21st century skills, build on what is already there, start with a small scale implementation, encourage collaboration and networking, and propose multiple ways to approach the implementation of 21st century skills, giving schools flexibility to decide how to proceed (p. 36-37).

In a year-long qualitative case study, Schrum and Levin (2012) studied eight award-winning, exemplary schools that showcase leadership for the 21st century and
provide examples of strategies and systemic efforts that have led to their success.

Information was gathered through observation, interviews, focus groups, and document analysis. The researchers found that the role of mission and vision played an important part on the path to 21st century education, a finding that is well supported in the literature. Findings also included the importance of planning for and supporting technology initiatives, implementing effective models of professional development to support the change, changing curriculum and instruction practices to be more reflective of 21st century classrooms, attending to school culture, funding technology initiatives, and creating partnerships with parents, families, and the community.

In differentiating effective leadership strategies for first-order and second-order change using factor analysis, Marzano et al. (2005) first identified twenty-one responsibilities for managing the daily life of a school. The results of their factor analysis indicated that all twenty-one responsibilities are important to first-order change to some degree. However, for second-order change, only seven of these factors were significant. While these seven factors are not strategies, they lead to setting priorities for actions in implementing change initiatives. Theses priorities for the leader of second-order change are as follows: be knowledgeable about how the innovation will affect curricular, instructional, and assessment practices, and provide conceptual guidance in these areas; be the driving force behind the new innovation and foster the belief that it can produce exceptional results; be knowledgeable about the research and theory regarding the innovation; challenge the status quo; continually monitor the impact of the innovation; be both directive and nondirective relative to the innovation as the situation warrants; and
operate in a manner consistent with one’s own ideals and beliefs relative to the innovation (p. 41-42).

Schlechty (2002) clarified the work of the superintendent in leading change by issuing five statements of strategic advice: be clear about what you believe; personalize your relationships with principals; clarify the vision; unify central staff; and think and act strategically. Lambert (2003) identified thirteen acts of superintendent leadership in districts with high-functioning district leadership. These acts also include developing a shared vision, educating and engaging board members, developing professional capacity in teachers and school leaders, and securing essential resources, among others.

**Synthesis of Strategies to Support Implementation of 21st Century Learning**

Throughout the scholarly literature, there are several identifiable themes or commonalities in the strategies listed to support implementation of 21st century learning or any second level change initiative. In all of the lists, defining a common vision was deemed central and essential to the change process and was usually given as the primary strategy. The communication or articulation of the vision to the learning community was seen throughout the literature as an essential strategy. Several researchers found that the engagement of the board of education and other stakeholders was a primary strategy, while a few researchers discussed attending to district culture as a need. These four strategies are tightly bound together and form the foundation of any large scale change initiative or transformational change effort.

The next group of strategies has to do with relationship and capacity building. Professional development for teachers and site leaders falls under this category as well as
personalizing the relationships with school principals. Strategies dealing with the motivation and support of teachers and principals would be included in this group. Also frequently mentioned were strategies having to do with curriculum, instruction, and assessment. It is clear that this is an area which must be closely attended to and about which the superintendent must be knowledgeable in order to have a successful educational change. Alignment of these areas to the change initiatives appears to be highly significant.

Systems of accountability and monitoring the change implementation process is the fourth strategic area. Many lists included this need as critical to fully implementing change. Closely associated to this area would be any strategies related to a culture of continuous improvement.

Regarding change strategies, Reeves (2009) articulated:

Failure in change strategies need not be inevitable. In fact, it is avoidable if change leaders will balance their sense of urgency with a more thoughtful approach to implementing change. If we have learned anything about effective change in schools or any complex organization, it is that neither managerial imperatives nor inspirational speeches will be sufficient to move people and organizations from their entrenched positions. Fortunately, there are practical steps that leaders can take to maximize their probabilities of success. (p. 7)

Chapter Summary

This chapter sought to review scholarly literature relative to the variables defined in this study: initiatives of educational change for the 21st century, the change process, and research-based strategies for implementing change. Literature was reviewed in order
to understand the modern superintendents’ role in implementing major initiatives and strategies that effect district-wide systemic change for 21st century learning. While this review was by no means exhaustive, the literature clearly supports the case for systemic educational reform for the 21st century. Moreover, the literature further points to a need for more empirical research on which strategies are proven to be successful when used by superintendents to implement major district-wide change initiatives that promote 21st century skills and learning in their districts.
CHAPTER III: METHODOLOGY

Overview

Chapter III describes the methodology used to conduct this study about the strategies, initiatives and change models used by superintendents of exemplar 21st century school districts, in order to bring about transformational change in those districts. Included in Chapter III are the purpose of the study, the research questions, the research design, sample and population, the data-collection and data analysis procedures, the limitations and delimitations of the study, and a summary.

Purpose Statement

The purpose of this qualitative study was to describe how superintendents of exemplar 21st century school districts implemented a 21st century model of education in their districts by identifying the change drivers, visions, frameworks of 21st century skills, major initiatives, strategies, and change models used in the implementation of change.

Research Questions

The following six research questions guided this study. The first three questions were developed to understand the background and context of the change process by identifying change drivers, vision, and frameworks of 21st century learning that influenced each participant. Questions four and five were developed to identify the broad initiatives and also the more specific management strategies used by the superintendents during the implementation of 21st century change. The sixth and final question was developed to understand the superintendents’ perception of the change process itself, including the process by which they overcame barriers and resistance to change.

1. What factors influenced the decision of superintendents of exemplar
21st century school districts to begin a change process in their district?

2. What are the visions for their districts held by superintendents of exemplar 21st century school districts?

3. What frameworks and definitions of 21st century teaching and learning were used in the implementation of change by superintendents of exemplar 21st century school districts?

4. What major initiatives have superintendents of exemplar 21st century school districts taken to implement a culture of 21st century learning?

5. What specific operational strategies do superintendents of exemplar 21st century school districts perceive as being most significant to the transformation of their school district?

6. What change models do superintendents of exemplar 21st century school districts use to implement 21st century change?

**Research Design**

This descriptive multisite case study was conducted to identify and describe the factors of influence, visions, frameworks, strategies, initiatives, and change models used by superintendents of exemplar 21st century school districts to transform their school districts into 21st century centers of learning. Creswell (2005) referred to a case study as “an in-depth exploration of a bounded system (e.g., an activity, event, process, or individuals) based on extensive data collection” (p. 485). McMillan and Schumacher (2010) defined a bounded system as one that is unique according to place, time, and participant characteristics. According to Patton (2002), case analysis organizes the data by specific cases for in-depth study and comparison.
Often, individual cases can be layered or nested to form a case study through cross-case analysis (Patton, 2002). According to Patton (2002), an example of this type of research is “studying a relatively small number of special cases that are successful at something and therefore a good source of lessons learned” (p. 7), thus distilling a number of significant lessons from data based on outstanding exemplars. A multisite case study was an appropriate research design for this study because it was used to elucidate the specific issue of superintendents’ use of strategies for leading district wide 21st century change in cases selected as outstanding exemplars of the phenomenon being studied. The unit of study is each superintendent who has led a district through the process of becoming designated as an exemplar 21st century district by the organization Partnership for 21st Century Skills. Cross-case pattern analysis of the individual cases constituted the layered case study.

Following a review of the literature, qualitative data was gathered using a semi-structured interview process, designed to gather evidence of the personal experiences of the superintendents selected for this study. The superintendents were interviewed regarding the factors that influenced their decision to begin a change process in their district, their visions, the 21st century frameworks they used, and their perceptions of which strategies and initiatives taken were most critical in bringing about the desired change. The interview was also designed to ascertain which, if any, change models were used to purposefully implement, guide, and monitor transformational and sustainable change for the 21st century.

According to Patton (2002), the purpose of interviewing is to allow the researcher to enter into another person’s perspective. “The Qualitative interviewing begins with the
assumption that the perspective of others is meaningful, knowable, and able to be made explicit” (p. 341). The semi-structured interview process was appropriate for this study. It allowed for the researcher to structure the interview stems in advance, thus ensuring that all of the research questions were addressed, while also allowing the researcher to probe more deeply, asking additional questions as the interview unfolded.

**Population**

A population is “a group of individuals or events from which a sample is drawn and to which results can be generalized” (McMillan and Schumacher, 2010, p. 489). The population for this study was superintendents who lead exemplar 21st century school districts. Exemplar 21st century school districts are defined as districts that have clearly evident practices in six indicators, using the Partnership for 21st Century Skills rubric, and verified during a visit of experts in the field.

Partnership for 21st Century Skills designates schools districts as exemplar using a rubric titled “Partnership for 21st Century Skills Local/Regional K-12 Exemplar Evaluation Tool” (see Appendix A). Districts were rated during team visits, using the six criteria of the rubric. These indicators are: (1) Commitment to college, career and life readiness, (2) Education support systems and intentional design, (3) Engaging learning approaches, (4) Equitable student access to 21st century learning, (5) Student acquisition of 21st century knowledge and skills, and (6) Partnerships for sustainable success (Partnership for 21st Century Skills, 2011). As this study began, twenty-four districts were included on the list.

From the Partnership for 21st Century Skills national list of twenty-four exemplar schools and districts, the researcher created a potential participant list that identified the
district name, location, superintendent name, superintendent email address, and phone number. Districts or programs that were not K-12 public schools and superintendents who had resigned or retired and could not be located were excluded from the list. In total, seventeen invitations to participate in the study were sent. An email introduction was sent with an overview of the study and an explanation of why they had been selected to receive an invitation. Each email invitation included three attachments: the full research study invitation letter (see Appendix B), an informed consent form (see Appendix C), and a copy of the interview protocol (see Appendix D).

Sample

A sample is “the group of subjects from whom data are collected; often representative of a specific population” (McMillan and Schumacher, 2010, p. 490). From the group of superintendents who responded by email that they were willing to participate, eight superintendents were selected to be interviewed using purposeful random sampling. Patton (2002) stated that purposeful random sampling is used to “add credibility when [the] potential purposeful sample is larger than one can handle [and] reduce bias within a purposeful category” (p. 244). Purposeful random sampling is appropriate for small sample sizes, for which the purpose is credibility rather than representativeness. Patton also stated, “the credibility of systematic and randomly selected case examples is considerably greater than the personal, ad hoc, selection of cases selected and reported after the fact – that is, after outcomes are known” (p. 241).

For this study, a random procedure for selecting those superintendents whose case histories would be recorded in depth. Each superintendent was assigned a number based on the order in which the responses were received. The superintendents selected through
this procedure were contacted by phone to set up the most optimal interview time for the participant.

Eight superintendents responded affirmatively to the email participation letter and returned informed consent forms. Of these eight, three were female and five were male. The years of serving as superintendent in their current district ranged from two years to ten years. The districts comprised rural, suburban and urban areas and ranged in size from 300 to 32,000. All of the participants were superintendents of school districts located in middle America, in the states of Iowa, Illinois, Wisconsin, and Kentucky. The participants were numbered in order of the date and time of their interview. Because this study was conducted as an anonymous study, neither the name of the participant nor the school district is identified.

**Instrumentation**

Following approval by the Brandman University Institutional Review Board (IRB), an email introducing the study was sent to each of the participants to provide information regarding the purpose of the study and an invitation to participate in the virtual interview process. Attached to the email was an informed consent form. An interview questionnaire was developed by the researcher which addressed each of the research questions and variables within the study. Follow-up questions were asked during the virtual interview for clarity and to add to the depth of understanding. Finally, the participants were allowed to review the recording and add additional information in writing via email.

A structured open-ended interview approach requires fully and precisely wording each question before the interview in order to ensure that each interviewee is given the
same stimuli and probes in a standardized format. Patton (2002) explains that one reason for using this type of interview is to make the exact instrument used in the interview available for inspection by those who will use the findings of the study. However, the weakness of the standardized approach is that “it does not permit the interviewer to pursue topics or issues that were not anticipated when the interview was written” (p. 347); therefore, a combined approach will be used. A combined approach involves using a standardized interview format in the early part of the interview and then leaving the researcher free to pursue topics or areas of inquiry more in-depth as they arise (Patton, 2002).

In the literature on educational leadership, there is considerable evidence about the contribution of specific leadership practices to organizational learning and student learning. Critical strategies and initiatives are known to have significant influence on organizational goals. The value of such actions lies in bringing focus to what leaders attend to (Leithwood, Day, Sammons, Hopkins, & Harris, 2006). Change models serve as the overarching mindset of district leaders when purposefully creating and guiding district-wide change and are helpful when assessing macro-level change (Kezar, 2001). An assumption is made that a leader’s choice of change model is ideological rather than arbitrary, and thus it reveals useful information about the strategies and initiatives selected by the leader to affect the desired organizational change. Further information regarding strategies, initiatives, and change models used by leaders can be found in Chapter II and in the Literature Synthesis Matrix in Appendix E.
Field Test - Reliability

The interview questionnaire was field-tested for inter-rater reliability with one superintendent and an observer. Inter-rater reliability is the extent to which “two or more observers or raters independently observe or rate something and agree about what was observed or rated” (McMillan & Schumacher, 2010, p. 182). The field-test interview was observed and reviewed by a public school psychologist, experienced in the psychology of human behavior. The reviewer observed for bias and item clarity, and then provided feedback to the researcher. Additionally, the field-test interviewee was questioned following the interview for bias, clarity of questions, and clarity of follow-up questions. Appropriate modifications were made to the interview instrument, based on the feedback from the field test.

Inter-rater reliability was also used after the data was collected. The superintendent who participated in the field test interview was asked to review the data that was collected to ensure that the researcher’s interpretation of the data was accurate.

Validity

Validity, in qualitative research, refers to “the degree of congruence between the explanations of the phenomena and the realities of the world” (McMillan and Schumacher, 2010, p. 330). Claims of validity are dependent on the processes of data collection and analysis. One way to achieve validity in qualitative designs is to ensure that the researcher and participants agree on the description and meaning of events.

To enhance validity in this study, the researcher utilized several strategies, as shown in Table 5.
### Table 5

*Strategies Used to Enhance Validity*

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant language – verbatim accounts</td>
<td>Obtain literal statements of participants</td>
</tr>
<tr>
<td>Mechanically recorded data</td>
<td>Recording via Adobe Connect</td>
</tr>
<tr>
<td>Member checking</td>
<td>Check with participants for accuracy during data collection.</td>
</tr>
<tr>
<td>Participant review</td>
<td>Ask participant to review researcher’s synthesis of interviews with participant for accuracy of representation</td>
</tr>
</tbody>
</table>


### Data Collection

Following approval from the Brandman University IRB, all data were collected from interviews conducted during the summer and fall of the 2014-15 academic year. Cover letters describing the purpose of the study were e-mailed to each of the twenty-four superintendents of the schools listed on the Partnership for 21st Century Skills Exemplar School list, inviting them to participate in the study.

The letters to each potential participant clearly outlined the steps to be taken to assure confidentiality. Potential participants were informed that during data collection, confidentiality would be maintained by assigning each of them a participant number. The recorded interview session did not reference the participant name in document title or Uniform Resource Locator. During the recording, the researcher did not refer to the participant by name. This also held true for any school name, school district name, county, or state. Any names used by the participant during the recorded session were redacted from the transcript. The interviews were transcribed, reviewed, and maintained.
by the researcher only on a password-protected external server. Superintendents who agreed to take part in the study were sent a letter of informed consent to sign and return.

The researcher also made follow-up contact through electronic media and/or by telephone to arrange appointments for interviews. The Adobe Connect platform was used to conduct and record interviews. Semi-structured interviews were conducted with the superintendents during the fall of 2014.

After the interview, the recorded interview links were sent to each respective superintendent, with a request to add anything they else they wished to their responses in written form via email. No changes to transcripts were made as a result of this process.

Data Analysis

This study was designed using qualitative methods for data analysis. Interviews were conducted, recorded, coded, and sorted to create narratives from which the researcher could identify processes and discern patterns and common themes among the responses. “Coding is one of the significant steps taken during analysis to organize and make sense of textual data” (Basit, 2003, abstract). Coding is a procedure for organizing the text into major themes and identifying patterns. By using a coding method, the researcher may be able to discover patterns that he might not be able to see directly in the vast amount of text that has been collected. From these patterns, theory can be formulated and developed (Auerbach & Silverstein, 2003).

Patton (2002) emphasized that in qualitative analysis, analysts must first rely on their own intelligence, experience, and judgment. The researcher successfully completed a qualitative research course through Brandman University within two years of beginning this study, and has twenty-five years of experience in the field of public education.
The coding and analysis method used for this study was facilitated by using NVIVO coding software. Transcribed interviews were uploaded into the software and manually coded, using the embedded tools in the software. Individual responses were coded, sorted, and organized in relation to the original research questions, theory, and literature. Themes were allowed to emerge and evolve as the data was analyzed line by line. Nodes and sub-nodes were created in response to the meaning of the text. Categories were refined as needed to clarify the meaning of each, thus ensuring that data belonging in these categories held together in a meaningful way. This process continued until saturation was reached. Creswell (2005) defined saturation as “the point where you have identified the major themes and no new information can add to your list of themes or to the detail for existing themes” (p. 244).

Reports were then run from the software so that the researcher could identify response frequency, visually explore the data, and determine substantive significance. Patton (2002) stated that in order to determine substantive significance in qualitative data, the analyst should address how solid, coherent, and consistent the evidence is in support of the findings, to what extent the findings are consistent with other knowledge, to what extent the findings increase and deepen understanding of the phenomenon studied, and to what extent the findings are useful for an intended purpose (p. 467). Major findings were described and written into a thick and richly detailed narrative.

During the interview process, the researcher consistently followed procedures to assure validity and reliability of the data. All interviews were electronically recorded and then transcribed. Individual responses were coded, sorted, and organized in relation to the original research questions, theory, and literature. The researcher reviewed the
responses of the interviewees searching for patterns and themes, similarities and differences, insight and intuition, then reported through narrative text.

**Limitations**

The first limitation of this study is its small sample size. Although there are over 13,000 public school districts in the US, only 24 had schools which appeared on the Partnership for 21st Century Skills list of exemplar schools. Only schools nominated for visits and evaluations could be rated and appear on this list; therefore, it is very likely that there are other schools doing exemplar work based upon the criteria used by the Partnership for 21st Century Skills which do not appear on this list.

The second limitation in this descriptive study is that the eight public superintendents who were interviewed may not be representative of school district superintendents, nationwide.

**Summary**

Chapter III reviewed the purpose of the study and the research questions. It described the research design, the population and sample, the instrumentation, and the procedures for data collection and analysis. Limitations and delimitations of the study were also noted.
CHAPTER IV: RESEARCH, DATA COLLECTION, AND FINDINGS

Overview

The world as we know it has been changing rapidly and profoundly since the turn of the 21st century. The convergence of powerful external change drivers require a fundamental and transformational shift in the role of education, in order to produce students who will have the skills necessary for college, career, and life in the 21st century. Therefore, school districts across the nation need transformational leaders capable of leading in times of rapid and profound change. Past analyses of district leadership initiatives and strategies have been conducted in districts selected according to their high academic achievement, yet few studies have analyzed superintendent leadership strategies and initiatives in districts that have successfully implemented the transformational paradigm shift towards a model of 21st century learning.

This chapter presents and synthesizes the findings from this qualitative multi-case study by organizing the data from eight public school superintendents in a narrative format around the six research questions, identifying themes and patterns as they emerge. The chapter includes a brief restatement of the research questions, a description of the participants, a description of the data collection process, and a detailed presentation of themes and patterns as they are exemplified in the data and organized by question responses. The chapter concludes with a summary of the findings.

Purpose

The purpose of this qualitative study was to describe how superintendents of exemplar 21st century school districts implemented a 21st century model of education in their districts by identifying the change drivers, visions, understanding of 21st century
teaching and learning, major initiatives, strategies and change models used in those implementations of change.

**Research Questions**

Six research questions guided this study. The first three questions were developed to understand the background and context of the change process by identifying change drivers, vision, and frameworks of 21st century learning that influenced each participant. Questions four and five were developed to identify the broad initiatives implemented by successful superintendents as they guided the district’s transformation to a culture of 21st century teaching and learning and also the more specific management strategies used by the superintendents during the implementation of change. The sixth and final question was developed to understand the superintendents’ perception of the change process itself, including the process by which they overcame barriers and resistance to change.

1. What factors influenced the decision of superintendents of exemplar 21st century school districts to begin a change process in their district?

2. What are the visions for their districts held by superintendents of exemplar 21st century school districts?

3. What frameworks and definitions of 21st century teaching and learning were used in the implementation of change by superintendents of exemplar 21st century school districts?

4. What major initiatives have superintendents of exemplar 21st century school districts taken to implement a culture of 21st century learning?

5. What specific operational strategies do superintendents of exemplar 21st century
school districts perceive as being most significant to the transformation of their school district?

6. What change models do superintendents of exemplar 21st century school districts use to implement 21st century change?

**Research Methods and Data Collection Procedures**

This study used a qualitative multisite case study to examine the realities of district wide change as they were understood and reported by eight superintendents of school districts identified as exemplar school districts by the Partnership for 21st Century Skills. This approach enabled the researcher to investigate a small number of cases involving successful superintendents. Change processes, initiatives and strategies were explored through semi-structured, recorded interviews with each participant.

A semi-structured interview protocol was developed by the researcher, using three demographics questions and seven open-ended question stems which were based on the research questions, to give the researcher context, background, and insight into the participants’ understanding of 21st century education. Probes were written under three of the open-ended questions in order to guide the researcher in soliciting deeper and more detailed responses from the participants. The interview protocol was field tested with a superintendent who was not connected to this study in order to elicit feedback on the questions and the process. No changes were made to the interview protocol as a result of the field test.

Participants were assigned a participant number based on the chronological order of the date and time of their interview. The interview time was arranged by email or phone. The researcher then sent the participant a hyperlink to the Adobe Connect
interview room set up for this purpose. At the time of the interview, the researcher and the participant both entered the virtual room. The participant was able to see the questions displayed one at a time in a presentation format as the interview was conducted.

The researcher asked each participant an identical set of ten question stems. The participants often explored topics beyond the scope of the research questions as the researcher probed for depth and clarification. Such themes were also analyzed, as they added breadth and depth in understanding the role of the superintendent as change leader and the processes of change as they occurred in each participant’s school district. Salient quotations from the participants provided emphasis to the emergent themes.

Each recorded interview was transcribed by the researcher, and the transcripts returned to the participants for verification of accuracy. None of the participants requested changes to the interview transcript. The researcher used NVivo 10 software to upload the transcripts, sort the data by question, and code the data separately for each question. Each question was given a node in NVivo; as themes emerged, the text was coded to a new sub-node for that question and theme. Using this process, codes were not pre-determined, but rather emerged from the data itself as it was analyzed line by line. In this way, patterns could be seen in the number of responses and sources coded to each node and theme. Finally, when all the text had been coded, the researcher searched for connections between all of the themes, even as they crossed over between questions, thus identifying broader patterns and contexts.

Population

The population for this study was the pool of superintendents in the US who lead exemplar 21st century school districts, as found on the list of Exemplar 21st Century
Schools and Districts found on the Partnership of 21st Century Skills’ website. Exemplar 21st century school districts are defined as districts that have clearly evident practices in six indicators, using the Partnership for 21st Century Skills rubric, and verified during a visit of experts in the field. At the time of this study, twenty four districts or schools within districts appeared on the list.

From the Partnership for 21st Century Skills national list of twenty-four exemplar schools and districts, the researcher created a potential participant list that identified the district name, location, superintendent name, superintendent email address, and phone number. Districts or programs that were not K-12 public schools and superintendents who had resigned or retired and could not be located were excluded from the list. In total, 17 invitations to participate in the study were sent. An email introduction was sent with an overview of the study and an explanation of why they had been selected to receive an invitation. Each email invitation included three attachments: the full research study invitation letter, an informed consent form, and a copy of the interview protocol.

**Participant Sample**

Eight superintendents responded affirmatively to the email participation letter and returned informed consent forms. Of these eight, three were female and five were male. The years of serving as superintendent in their current district ranged from two years to ten years. The districts comprised rural, suburban and urban areas and ranged in size from 300 to 32,000. All of the participants were superintendents of school districts located in middle America, in the states of Iowa, Illinois, Wisconsin, and Kentucky. Table 6 displays the participant information for the eight identified participant superintendents. The participants are numbered in order of the date and time of their
interview. Because this study was conducted as an anonymous study, neither the name of the participant nor the school district is identified.

Upon receiving the informed consent form, each participant was scheduled for an interview at the day and time most convenient for them. Interviews were conducted using the internet meeting platform Adobe Connect. The researcher set up a virtual interview room in which the participant could view the questions one at a time in a presentation format. Verbal permission to record was obtained at the start of each interview session.

Table 6

Participant Information

<table>
<thead>
<tr>
<th>Participant Number</th>
<th>Gender</th>
<th>Years as Superintendent in current district</th>
<th>Estimated size of district in terms of pupil count</th>
<th>State</th>
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Presentation and Analysis of the Data

This section presents a synthesis and analysis of the question responses in a narrative format, organized by question and the themes as they emerged in each question.
Research Question 1

Research Question 1 was: What factors influenced the decision of superintendents of exemplar 21st century school districts to begin a change process in their district? The question was stated to participants in the interview as follows:

*Regarding change for the 21st century, please describe the internal and external factors influencing your decision to begin a change process in your school district.*

This section presents the participants’ responses to Question 1 by theme. Six themes emerged from the participants’ responses to this question: community-led change, district complacency, global literacy needs, 21st century skills needs, student-centered change, and research/literature. The frequency of references and source data coded to these themes are found in table 7.

Table 7

*Codes and Frequencies for Research Question 1*

<table>
<thead>
<tr>
<th>Code</th>
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<td>District Complacency</td>
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<tr>
<td>Global Literacy Needs</td>
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<td>21st Century Skills Needs</td>
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<td>Student-Centered Change</td>
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<td>4</td>
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<tr>
<td>Research/Literature</td>
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**Community-led change.** Three of the participants talked about reaching out to their community as one of the first things they did to discover the need for change and the direction of that change. Community in this context includes businesses and employers.
Participants discussed how they would then seek to find gaps between what was needed and what was presently occurring. Participant 3 stated this succinctly:

*One of the first things I did was reach out to our community and say, “Tell me what you need,” and at the same time I was reaching out to the students saying, “Tell me what you’re actually doing in your classrooms,” to try to see if there was a match between what the community leaders were saying they needed in their new employees and what the future employees were saying they were actually doing in their classrooms.*

Participant 6 spoke of how being in a small school district generated a need to attract students to the district. In this context, the school board was also a part of the community context:

*The impetus to go to a reform and change was that the board directed me to develop a program whereby the district would become known for its academic excellence and to be the district of choice in our geographical area in regards to academics. Our draw to bring people to the community would be focused on high academic achievement. And we decided that we would go out and explore what programs were out there that would accomplish that task.*

Participant 6 explained that as he and his team went out to find programs that would promote academic excellence, they also discovered the community’s need for global awareness and what the surrounding geographical area could offer students through inquiry-based learning.

Changing community demographics was another element that emerged within the community theme as a factor or influence of change. Participant 1 identified this need in her district when she stated:
And so the demographics were changing and the culture of the district was not maintaining what it needed to do in order to meet the needs of all children, and so there’s your impetus for change.

**District complacency.** Complacency emerged as one of the strongest themes, referenced seven times by five different participants. Complacency refers to the impetus for change that occurs when a superintendent notices that the district is content to stay as it is. Usually due to high achievement or a high socioeconomic base, teachers and parents in these districts do not notice external drivers for change, due to internal stability. Participants who noticed complacency in their high achieving school district saw that as a mandate to educate their districts on the urgent necessity of change for the 21st century. Often this was coupled with other themes such as seeing the need for global awareness or the need for students to be equipped with skills for success in the 21st century. Participant 7 summarized this theme effectively:

*We weren’t having some of the outside pressures of other districts in regards to academic performance. Our academic performance is going to rival anyone – our kids do well in a traditional setting, so in a lot of ways, it’s more difficult to understand the need for change, so creating that urgency was a little bit of a challenge.*

Participant 8 was similarly definitive in his belief in the danger of not being willing to innovate and change. In his response, he stated:

*The worst thing any organization can do is become complacent. If we are not willing to innovate and change, others will pass us by.*

Participant 1 described her perspective that there is no time and no opportunity to be complacent:
If it’s always worked, you’ve always had great scores, and if you’re not confronting the question about whether every child is succeeding and if not, why not, then you’re missing the boat. So I think those were the biggest drivers for me when I came into that district was helping the community - both the professional community and the community at large - in recognizing a changing world around them and then meeting the needs of all the students within that changing world.

Global awareness needs. Global awareness refers to superintendents who became aware of the need for the students in their district to have a wider perspective and appreciation of global cultures and languages in order to be able to compete in a global society. This was particularly true for superintendents of districts in homogenous populations who recognized a critical lack of diversity. Three of these superintendents used this factor as a springboard for implementing a biliteracy or multi-literacy initiative in their districts.

Participant 2 talked about how having her own two younger brothers enrolled at Harvard and New York City Universities opened her eyes to how highly successful students, knew multiple languages, which is what started her thinking about 21st century skills. Participant 6 spoke more about his concept in the context of his own district demographics:

I think that in a small rural setting such as ours, our students may not have an opportunity to interact with other cultures that people who live in larger urban areas might have, so by having this global perspective and asking students to look at things from the perspective of someone in another country – how would they view this same situation, for example, a teenager your age in the middle east – how would they look at
this? So the 21st century education has to include the ability to understand global perspective and respect other cultures.

Participant 7 states an almost identical observation about his own district in rural Iowa:

*I told you we’re a small district. We’re a relatively affluent district, 98% white, kids coming from two parent households with most parents going to college. Diversity is not our strength. So we really try to help our kids thinking globally.*

The theme of global awareness carries across many of the interview responses. It also appeared in the responses to Question 3 when defining 21st century skills and again in Question 4 when describing major initiatives. Because the theme of global and diversity awareness linked across so many participants and questions, it was a major finding in the research.

21st century skills needs. The theme of 21st century skills as a change driver refers to the participants’ responses in which they demonstrate a keen awareness of the changing labor market in this century. It refers to an acknowledgement that students need to learn a particular skill set in order to be successful in the workplace and in society. Participants 6 and 7 both talked about this concept as a change driver.

Participant 6 spoke of seeing a need in his students to use creativity and critical thinking for problem solving. He also talked about having a strong arts program as an integral part of a strong academic program. Participant 7 stated the skills need succinctly:

*We wanted to create a better experience for our kids that has more meaning and*
is more personalized, that not only has the academic and content types of skills we want them to develop but also those soft skills, or 21st century skills, that really are ultimately the things that matter as much or more than the academic or content standards that we typically think of in school.

Although the theme of 21st century skills did not emerge as strongly in the responses to this question as it did in later questions, it is included here because, as with global awareness, it emerged as both a driver for change and an initiative for change.

**Student-centered change.** The theme of students refers to references in the participants’ responses that have to do with student-driven or student-led change. Three participants talked about this phenomenon as a change driver in their district. These superintendents recognized and articulated the student-centered purpose of all educational change. As Participant 3 articulated this theme as follows:

*So for me, it was important that we started making the change happen almost at the student level and the teacher level up, because those are the people who are influencing really whether this was going to sustain as a change.*

Participant 5 engaged a narrative in which he walked classrooms during his first month in the role of superintendent and worried about the students’ ability to transfer their learning:

*I worry greatly about transference and understanding that often kids “learn” things for the test but they don’t retain it or transfer it into new and unique situations. So we are really trying to determine what we would do to help our students and really engage our students in those next steps. That’s where we just immerse ourselves into the*
research and try to understand those problems for that 21st century learning environment that we’re trying to create here.

Participant 7 was also focused on the students in his response to question 1, summing up his response with a statement that what was ultimately important to his district was that the current system wasn’t meeting the needs of their students.

But ultimately we just really started having a conversation about what we want school to look like for our kids. We involved students in that conversation and you know, what it really came down to was that they wanted to have a lot more choice. They wanted the learning to be authentic. Kids are used to having a lot of choices, and though there are similarities in what they’re looking for, there are always these individual differences. It’s just not possible in a traditional setting. It just wasn’t meeting their needs.

The theme of student-centered change carried across a great deal of the responses and could be thought of as a broad umbrella theme encompassing all responses in which a participant demonstrated he or she was thinking foremost about the students’ needs when deciding to implement change. However, it was also stated as its own theme because of the explicit statements made by participants in these passages.

Research and literature. Six of the eight participants cited research, literature, or specific books as one of the factors of influence on their decision to implement 21st century change.

I wouldn’t say there is one [piece of research] because sad as it is, I like reading the research, so it was just a compilation of all the research. I love John Hattie’s work, I love seeing the meta-analysis of the work and trying to engage in that. The Buck Institute
does a great job with the project based learning and the research that they bring forward there, but I wouldn’t say there was one seminal piece of work that said, “This is my rock; this is my foundation.”

Several participants did mention seminal works. Tony Wagner’s The Global Achievement Gap was referenced by three participants as a major source of influence, while Robert J. Marzano’s works were cited by two participants. Other specific authors that received at least one reference were Jim Collins, Lucy Calkins, Michael Fullan, and Richard DuFour. Participant 2 identified Tony Wagner’s work as the beginning of her district’s journey toward 21st century education. She used it as a leadership team study, as she and her board of education read The Global Achievement Gap together in her first summer as a superintendent and then established five district goals around this work. She described these goals as follows:

*They were goals that centered around rich meaningful learning experiences. We really set out to say ask, “If we know that these are the skills kids need to be successful today, what do the learning experiences need to look like to get them there?” And so that was the beginning of the journey.*

Participant 1 identified the influence of research and literature on her mindset and explained how the research validated what her district was already implementing:

*I don’t think we began to call it “21st Century” until we started to really look at what the research around us was saying for what children need to know and be able to do, as they move out of our schools and into being productive citizens.*

Research and literature as a factor of influence on the participants emerged as a very strong theme throughout the interview process.
Research Question 2

Research Question 2 was: What are the visions for their districts held by superintendents of exemplar 21st century school districts? The question was stated to participants in the interview as follows:

*Please describe your overall vision for the district.*

Follow-up probes to this question were: communication of the vision, accountability for implementation, and measurement of successful implementation.

This section presents the participants’ responses to Question 2 by theme. Although all eight participants robustly engaged in the discussion of vision, the uniqueness of each participant’s response made it more difficult to identify common themes. Therefore, the researcher searched for ways to connect the responses into very broad themes. Six themes then emerged: 21st century skills, global readiness, college and career readiness, personalized learning, risk-taking and trust, and shared vision. The frequency of references and source data coded to these themes are found in Table 8.

Table 8

<table>
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<th>Codes and Frequencies for Research Question 2</th>
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<tbody>
<tr>
<td>Code</td>
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<tr>
<td>College &amp; Career Readiness</td>
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<td>Personalized Learning</td>
</tr>
<tr>
<td>Risk-taking and Trust</td>
</tr>
<tr>
<td>Shared Vision</td>
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</table>
21st century skills. This theme captures references by participants to having a 21st century skills emphasis in the vision for their district. Although references to college and career readiness, global readiness and personalized learning could fit under the 21st century skills umbrella, this theme refers to specific references to this exact term. Two participants used this term in their responses about vision.

Participant 4, a superintendent of a high-poverty large urban district, talked about 21st century skills as the meat and potatoes of what his district needs to do to help close the technology gap in his community. He stated:

*It’s more important for us to be on the cutting edge of 21st century learning than everywhere else. If we’re not teaching it explicitly in our schools, then our kids won’t get it. They’re just not in an environment at home where technology is a real part of their lives. So it’s more important for us than for most of the rest of the districts in the state to really emphasize the 21st century skills.*

Participant 5, a superintendent of a low-poverty, high-achieving suburban district found different reasons for wanting to see a 21st century skills emphasis in his district:

*We have an obligation to our families, to our communities, to our kids, to teach well and to nourish that human spirit, that love of learning. And why I believe so much in that problem based learning is because our kids need to love learning, as opposed to being just taught at. They’ve got to love learning. I’ve got to have teachers who are willing to do the really hard work of thinking, planning, revising, reflecting, changing... for me, that’s 21st century learning.*

The participants’ definitions and understandings of 21st century teaching and learning are explored more in depth in the next question. The following three themes –
global readiness, college and career readiness, and personalized learning – could be seen as falling under the broader theme of 21st century learning, but they are explored separately.

**Global readiness.** The theme of global readiness refers to specific references in the participants’ responses to readying students to participate in a global society. Skills and concepts that fall into this theme include linguistic diversity, cultural literacy, and problem-solving in real-world global contexts such as world hunger or global warming. This theme also emerged in question 1 as a change driver. Participants 3, 4, and 7 identified this theme as central to their vision.

Participant 3 stated it concisely:

*Well we do a lot with communicating our vision, but one thing we have held to is that we have had three main goals in our district that we set up to really push our vision that every student would be prepared for the global work market.*

Participant 7 also included the need to think globally in his stated vision, but grouped it together with other learner characteristics:

*We’re trying to create learners who communicate, collaborate, create, innovate, adapt, solve problems, think globally, live ethically, and persevere (have grit).*

As an example of need, Participate 7 spoke about how diversity was not his district’s strength, therefore:

*We really try to help our kids think globally. That’s a really important part of what we’re trying to do. So for us, it’s hard for our kids to experience diversity as much as we’d like them to, so we’re implementing a K-12 Spanish program… So even if we*
can’t put them in a diverse environment, at least they’ll be culturally aware of our Spanish-speaking Americans.

These three participants clearly held the concept of global readiness as a central tenet of their vision for their districts.

**College and career readiness.** As with global readiness, this theme can be grouped under 21st century learning. However, the researcher found that specific references to college and career readiness by the participants in response to this question were more focused on creating systems and structures for students that prepared them for specific careers. Career Academy models fall under this theme, as well in some cases, International Baccalaureate and Advanced Placement programs. Three participants articulated a vision specific to this theme.

Participant 2 said that she had decided that the state was providing too many targets for schools to accomplish. Therefore, she declared to the district that they were going to focus on college and career readiness. According to this participant, after two years of keeping to this vision, the district’s measures of college and career readiness more than doubled. Participant 3, notably in the same state as Participant 2, reflected the same vision:

*We want to make sure all of our students have successfully transitioned into something where they can sustain a good living, and then we go seek out our own information about whether they really make it once they’re in college."

Participant 8 described his vision with college and career readiness as the central focus. In doing so, he succinctly articulated this theme:

*Our overall vision for our district is ensuring that all students, when they
graduate, have the skills to do one of the following: attend a two-year community college and earn a certificate or associates degree and be successful there, persist at a four-year college or university and be successful there without having to take remedial courses, be able to enter the work force with a certain certification above any other high school graduate in the area, or number four, have the skills to be in the military without being sent into remedial or developmental courses.

Participant 8 went in greater depth into this topic, speaking of students who would be the first generation in their family to attend college:

*Kids can’t dream what they can’t see, so we spend a lot of time talking about how we are going to change dreams through providing a lot of opportunities for our kids.*

Participant 6 took a slightly different approach to the same theme. To him, the work that students are doing in school needs to be rigorous but also linked to something that applies in their everyday life, what he called authentic as opposed to theoretical:

*And I think that’s part of our vision, that we’re going to challenge our students but we’re also going to show them the relevance and importance of why they’re learning something.*

**Personalized learning.** The theme of personalized learning refers to statements in the participants’ responses about differentiation, individualized instruction, self-paced instruction, and competency-based instruction. These concepts, although not new to education, represent a 21st century learning theme for how instruction might be delivered differently for each student and personalized to each student’s needs. Participants 1 and 7 articulated this theme in their responses.
Participant 1 stated that her vision stems from the belief that every child should get what every child needs. She stated her hope that in the next few decades learning would become completely individualized around the skills, talents, passions and interests of each student. Her vision was that learning would be built around the child rather than making the child fit into a pre-built system as it is currently.

Participant 7 articulated a similar viewpoint:

I’m going to start with our mission – to personalize learning for each student’s success today and tomorrow. Personalize learning – that’s how I simplify it. So from there, if we’re truly trying to personalize learning, and we’re using that as our focus area, then every decision we make we need to ask, is this going to make learning more personal for each student.

Participant 7 is the superintendent of a district which is only one of ten in his state to participate in the competency-based education collaborative. This is a system that allows students to move at their own pace and to design their own learning around problems that they want to solve as long as they can demonstrate that they are meeting certain competencies.

Risk-taking and trust. This theme grouped together participant responses that focused on systems for success within the organization as being central to the vision. There were many unique responses within this theme. However, what these responses had in common was the superintendent’s cultivation of a district culture that encouraged and supported risk-taking, while simultaneously developing a culture of mutual trust. Participant responses in this category articulated concepts of recognizing and celebrating success, multiplying the talents of the team, and holding an unwavering belief in people.
Participant 5 was particularly strong on this point as he related it to his vision. He admitted that his vision was not lofty and pretty but was very practical:

*It’s a belief about people, and it’s a belief about our role as superintendents and leaders which is to create great systems and great structures which allow our teachers and administrators to become even more effective than they have been in the past. Because I truly believe that most people want to do what’s best, but at times it’s the system, it’s the structures that we put them into that do not allow them to achieve the greatness that’s there for them.*

Participant 6 also talked about teamwork and structure. He stated his belief that part of administration’s job is to provide the structure and support for teachers to be able to implement all that is asked of them in the different changes. Participant 2 articulated the need to create an environment in which it was safe to try new things and safe to fail, Participant 1 talked about building a foundation of trust and communication in the team before embarking on any new vision, by allowing people to safely disagree, as expressed in this response:

*I was surrounded by tremendously talented individuals who brought to our conversation their perspectives, their experiences, and their approach to moving others to lead. I would say that for me it really is about team. It really is about the ability to capture the talents around you including my board, and as I said being bold in sharing your vision, but then allowing people to say, “You’re nuts – you’re really thinking that way?” Well, I’m really thinking that way, what are you thinking?*

Recognizing and celebrating success was expressed by Participant 3 as an important strategy to employ as part of the communication of the vision. She talked
about the district’s theme that *Excellence is Everywhere* and celebrating excellence everywhere they found it. The concepts grouped in this theme emerged again when the participants discussed strategies of implementation. However, they were also expressed here, in the responses to developing a district vision.

**Shared vision.** This smaller theme emerged as a common theme expressed by three of the participants in their responses to the question on vision. Participant 2 began the conversation by saying *I wanted*, and then quickly backed up to say, *No, that’s not right. It was WE. WE wanted.* She then described a process of generating a shared vision in a team that consisted of principals, teachers, board members, members of a partner university, parents, students, and community members. She described how together this team worked to create a list of competencies and experiences they wanted every graduate of the district to have, and that became their shared vision.

Participant 3 described the process by which she and the board jointly defined a vision in her first year as superintendent, by reading together the book *The Global Achievement Gap* by Tony Wagner and defining district goals around the themes in that book. Participant 6 also described a process of working with key teacher leaders and the board of education to develop a shared vision of learning. He stated that only by generating the buy-in at the start of the process can implementation be achieved.

Participant 1 summarized her idea of a shared vision as follows:

*The Superintendent’s role is to set the vision, embrace the change, and ensure that others have felt that they were a part of creating that vision, that it isn’t an autocratic, that this is where we are going to go. As a leader you feel bold enough to say,*
what if, and how about it, and then allowing people to dream with you and from that
dream build a plan that is actionable and measurable to implement it.

**Research Question 3**

Research Question 3 was: What frameworks and definitions of 21st century
teaching and learning were used in the implementation of change by superintendents of
exemplar 21st century school districts? The question was stated to participants in the
interview as follows:

*How do you define 21st century learning? Please any framework or frameworks you have used to conceptualize 21st century teaching and learning in your district.*

This section presents the participants’ responses to Question 3 by theme. Three
themes emerged from the participants’ responses to this question: Partnership for 21st
Century Skills (P21) framework, other published framework, and customized framework.
Within the customized framework, four sub-themes were identified: global diversity
awareness, college and career pathways, learner characteristics, and personalized
learning. The frequency of references and source data coded to these themes are found in
Table 9.

Table 9

*Codes and Frequencies for Research Question 3*

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(continued)
Table 9

Codes and Frequencies for Question 3

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<td>Personalized Learning</td>
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**Partnership for 21st century skills (P21) framework.** Four participants referred to using the P21 framework, at least in part, or because it matched what they were already doing. None of the participants expressed that the P21 framework was their primary source of information for defining 21st century learning, nor did they follow the framework exactly as written. However, each of the four said that it had some influence on their district’s work and perceptions of 21st century learning. Participant 1 summarized her district’s experience with P21 in this response, which also expressed a customized approach to creating a framework:

*Finding Partnership for 21st Century Learning was something that we found matched what we were doing. We didn’t look for the framework. We built the framework and then looked for areas that would complement that framework. So the research base was the learner centered principles. We built the framework of what learner characteristics would look like in our district for our students and then P21 was really a good match in terms of helping us build some of the classroom skills around problem based learning and innovations that matched what we were looking to create.*

In Participant 5’s response, he talked of using the P21 rubrics to help his district assess and measure how they were doing on the “4 Cs” as defined by P21. In this sense,
he considered it a “value added” element of belonging to the organization. Participant 5 stated:

"Where it’s [P21] playing a part for us in greater depth and complexity are bringing out P21’s rubrics in being able to look at and help us clarify what critical thinking look likes. Each one of those rubrics is so valuable to us. Our principals use those all the time and we bring them back to the table to say, “Where are we at?” It really helps us measure our model, because it’s all about those skills. Those 4 Cs come alive and that’s where we’re able to do our monitoring and adjustment of the system."

Although named an exemplar district by P21, Participant 6 stated that they learned of P21 only after the organization approached the district about the exemplar program. "We found out that it links in extremely well," he stated. Finally, Participant 7 stated that his district leadership had looked at many frameworks, including P21 and the 4 Cs in determining the best model for their district, producing, much like Participant 1 said, a customized framework with significant P21 influence.

P21’s influence on the participant district was found in other responses even when not specifically referenced. For example, two participants referenced the concept of skill-based rather than content-based instruction, and two participants referenced the concept of using technology as a tool for learning rather than as a separate competency or skill set. These concepts are embedded in the P21 framework.

**Other published frameworks.** This theme was formed from the participant responses that mentioned other specific frameworks of 21st century learning. Four participants referenced other published frameworks. Participant 1 referenced a theoretical framework written by McCombs and Miller (2007) on learner-centered
principals. Although during her interview, Participant 1 was unable to recall the title of the framework, the researcher was later able to ascertain that she was referring to a work titled *Learner-Centered Classroom Practices and Assessments: Maximizing Student Motivation, Learning, and Achievement* (2007).

Participant 3 stated that she was most significantly influenced by conceptual frameworks around personalized learning. Participant 3 did not specifically reference an author or title for any of these frameworks.

Participant 7, whose district is in the state of Iowa, stated that the state legislature has defined 21st century skills for its districts as civic literacy, employability skills, financial literacy, health literacy, and technology literacy. However, Participant 7 notes:

*When you dig deeper into those, you see the 4 Cs and adaptability and flexibility and all those types of things. We tried to morph it into what we felt fit us best, and not to have too many but to have enough. So a combination I guess – that’s a long answer to a simple question, but a combination.*

The combination he referred to in this response was a combination of P21 and other writers with the state’s framework.

Participant 8, whose district is in Illinois, used the University of Chicago’s College and Career Readiness skills as a framework. Describing this framework, Participant 8 stated:

*The University of Chicago did a really nice project where they took the college readiness skills...basically took every one of those skills, looked at the ACT and created stems of questions and evidence to look for, and asked, “How can we help kids get to that level in which they’re able to help develop those skills?”*
Another theoretical framework mentioned frequently (n=3) by the participants was that of Project-based Learning (PBL), sometimes also called Problem-based Learning. Participant 2 stated that when her district was looking for models of what worked in successful districts, they saw a great deal of PBL, and this became the springboard for instructional transformation in their district. Participants 3 and 5 also stated that they relied heavily on PBL as an instructional model. Participant 5 describes his district’s journey as follows:

We didn’t come up with inquiry-based learning, we didn’t come up with problem-based learning here in [our district], but we laid out that map. We laid out where we were going, and those key pillars within our framework, our learner characteristics.

**Customized framework.** This theme emerged strongly in several areas throughout the interviews. Even when participants discussed P21 or other specific frameworks, they generally added commentary to suggest that they took parts of many frameworks and combined them with elements specific to their own district’s needs, reflecting a much more organic process than using a prescribed framework exclusively or in totality. Conversely, the five participants referred to creating a customized framework of 21st century skills for their districts, also referred to elements of other frameworks in their responses. Sub-themes within this theme were identified as elements used in the customization process.

Participant 2 described the process of creating a customized framework from the ground up. She stated that she went to visit schools that were consistently in the top twenty schools in the state, making notes of what she saw and identifying common characteristics. Then she took groups of teachers to visit truly innovative programs, such
as High Tech High in California and the Innovation Zone in New York City. Participant 2 reported her findings in the following response:

*What we saw in those schools were some common factors, even though the schools were very different geographically in very different geographic location, we saw things like students were engaged in work that mattered to them today. That's what we saw in those schools – very much a problem based or project based philosophy. We saw that kids were also involved in internships. They were getting out and having real on-the-job kinds of experiences, and the schools were very intentional about helping kids to plan pathways. We saw also in those schools that the schools were maximizing technology. What we saw was a very personalized approach to learning, so it wasn't one size fits all. We sort of created our own framework based on what we learned.*

Participant 3 summarized the processes very succinctly, stating that it was *grabbing onto the things that made sense to us* and then designing those pieces to fit with the training they were receiving. Participant 5, on the other hand, explicitly stated, *We customized it for our district*, using a broad-based stakeholder group to reach consensus on the learner characteristics and skills they wanted to see in their own students, much like the process used by Participant 2.

The sub-themes for developing a customized framework include many of the concepts identified by the participants in their responses to question 2: the development of career pathway academies, increasing global awareness, developing personalized learning paths, and developing unique sets of learner characteristics.
Research Question 4

Research Question 4 was: What major initiatives have superintendents of exemplar 21st century school districts taken to implement a culture of 21st century learning? The question was stated to participants in the interview as follows:

*Please describe the major initiatives you determined to implement in order to achieve the district vision.*

This section presents the participants’ responses to Question 4 by theme. Six themes emerged from the participants’ responses to this question: college and career readiness, standards-based teaching and learning, student achievement, personalized learning, professional learning communities (PLCs). The frequency of references and source data coded to these themes are found in table 10.

Table 10

*Codes and Frequencies for Research Question 4*

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<td>4</td>
</tr>
<tr>
<td>Professional Learning Communities (PLCs)</td>
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<td>6</td>
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</tbody>
</table>

**Technology.** Technology initiatives emerged as the strongest theme in the participants’ responses to this question, with five of the participants stating that they had implemented at least one major technology initiative. Nearly all of the participants who referenced technology as an initiative qualified their response by saying that technology
was never purchased for the sake of having technology; rather it was viewed as a tool for students to be able to access information and the global society. Superintendents in higher poverty areas viewed technology as an opportunity equalizer. Most of the participants were moving towards a one-to-one ratio of devices to students, or they had already achieved such a ratio. There was no consensus on which type of device was best; rather that there needed to be devices in place. Participants also referenced budgetary issues involved in launching a major technology initiative. Those who referenced technology clearly viewed it as a non-negotiable initiative in the transformation to 21st century education.

Participant 3 was one of the few participants who did not implement a one-to-one initiative. However, she stated that her district had opened the door for students to bring their own devices to school. She was firm on the idea that technology is a tool and not an end game, stating that they try not to: *look at the use of iPads or the use of Twitter as something special. We try to look at those as tools...because we just try to integrate technology into everything we do.*

Participant 4 was one of the superintendents who decided to implement a one-to-one technology initiative, purchasing large quantities of laptops, tablets and smart projectors to outfit the classrooms in his district. Clearly thinking through his list of past and pending purchases, he stated:

*We put a smart projector in all of our elementary classrooms, so we did a purchase of 700 or 800 projectors, and we’re moving that initiative forward to the middle and elementary schools so we purchased little laptops that also work as a notebook computer, a tablet computer, and we put 7 of those in every single elementary classroom,*
I don’t know how many we purchased – maybe 5 or 6 thousand I think. We haven’t articulated exactly what the investment will be with the laptop devices at the middle school level, we’re committing to the projectors and we still have to do some work around the middle level. At the elementary level all of our teachers teach all content areas, so that was an easier question to answer, and we’re still looking at how that’s going to look at the middle level and we’re anticipating going one to one at one of our larger high schools.

Participant 5 discussed how the one-to-one technology initiative had led to changes in staff development:

So we did a one-to-one roll out at the junior high level for 1300 students, so that each student has their own laptop, and that’s gone fairly well. A few bumps in the road around how do I use it, how do my kids use it. Some teachers just aren’t tech savvy, so we’ve spend a lot of time and energy and appropriately so, working with our teachers on that aspect of it, and that was kind of coming down the pipeline prior to me.

Participant 7 put his technology initiative into the context of closing the access gap and its impact on improving instruction:

Once kids had access to technology, that became a major game changer for our students and our teachers because now they had access to resources that they never had before. So now when you talk about differentiating instruction to meet each individual students’ needs that quickly became very possible. What happened then is that because the students could more quickly access content, the teachers could then make the classrooms more differentiated and the instruction more student-centered.
Participant 8 had the most unique and perhaps high-level technology initiative of all, implementing a pilot process in which teachers were required to submit and defend proposals in exchange for receiving classroom sets of technology. Additionally, Participant 8 was the only superintendent to talk about a transformation to digital curriculum. The result of this process, he stated, was that they were building capacity over time, making it clear that technology was a tool to transform teaching and learning, not just another tool.

**College and career readiness.** Included in this theme as an initiative is the implementation of career-based academy models. In the analysis of responses from prior questions, it has already been seen that this theme is highly present in the minds of the participants, as a change driver, a part of the vision, and a framework for change. For some participants it also was a major initiative. Participants 2 and 3 were particularly strong on this point. For Participant 3, this was simply the focus and end goal of the entire change process.

Participant 3 completely restructured her district to the academy pathway model. She implemented eight pathways total, two at each existing high school and two more at an old vocational education school, which had closed and re-opened as an academy. Each academy was based on data gathered by a local university showing high need job markets. Each student would spend half of their day at their home school and the other half of their day at their career technical academy, getting in-depth technical skills for that career and getting authentic and relevant learning experiences. Establishing business partnerships was also a large part of this initiative. Participant 3 talked about the effect this initiative was having on her district:
So, if you take that, and you back map it down to what our students need in elementary school and middle school we are starting to find that with these major initiatives we need to talk to students at much younger levels and we have to focus much more on some of our minority students, our female students who aren’t typically choosing those careers that are needed, those STEM careers, that are needed both in our area and globally, really. So we’re finding that we have to add college and career counselors, we’re having to educate our teachers more about what jobs are out there.

While Participants 2 and 3 were focusing on career technical academies, Participant 4 focused on the gap he saw in college readiness. Looking at the correlation between grade point averages in his district and college entrance exam scores, he knew that there was work to be done in raising the bar on college readiness.

**Standards-based instruction.** The responses included in this theme contain references to the implementation of common core standards and moving towards a standards-based grading system. Participants 4, 5, and 7 talked about this implementation as one of their major initiatives.

Participants 4 and 7 talked about the standards-based grading system that was being implemented, with Participant 4’s district implementing at the middle school level and Participant 7’s district becoming one of the first high schools in the country to implement it fully K-12 as part of competency-based education, stating:

*Our end goal what we envision is this wall full of standards and competencies that we expect every student to be able to do and know when they leave here – what we envision is almost eliminating classrooms per se, and allowing our kids to say, okay, here’s what I want to do, this is how I am going to learn what I want to learn and meet*
all these competencies, and then they just kind of check them off. So the end goal is that they can check off all these standards and competencies with their teachers help. So that’s really a big initiative.

Participant 5 was the only superintendent to specifically reference the common core standards in his response, along with the Next Generations Science Standards, and how using those standards had transformed the lesson planning time in his district:

*The standards for us are foundational. We talk about it in our model, when we did our training. You don’t bring anything else to the table except your standards and your thinking. And that was really hard for people. We think the common core standards are more rigorous but you need time with them. And we have coaches with them and we have math or literacy experts alongside so they can support them. So it’s a pretty huge initiative, just the planning itself, but you have to have meat to it.*

**Student achievement.** Participants who included initiatives on raising student achievement were grouped into this theme. Participants 4 and 8 both implemented or increased Advanced Placement programs. Participant 6 implemented an International Baccalaureate program in his district. Participant 8 explained his initiative as follows:

*And then our third goal is a goal around advanced placement and increasing the number of tests taken, student success on those tests, and students taking those tests. And our theory going into this was that we believed we could expand access to AP much broader than we had been doing. And we looked at our overall AP growth as one thing, but we also wanted to look at our subgroups and how our subgroups were performing.*
Participant 8 stated that initially there was a lot of pushback from teachers on this goal, but that eventually when they could see the results, they agreed and became committed to it.

Participant 6 is the superintendent of a very small rural school district, which made implementing an International Baccalaureate (IB) program a bold initiative for his district. He described his district’s journey as follows:

*I sent teachers out to visit schools that were doing IB and asked them if they thought it would work in our setting. They came back very positive. And then we started down the process in getting teachers trained in going through the authorization to become an International Baccalaureate school. It took us 6 years. And now we’re the only all IB 4–12 grade school district in the state of Wisconsin.*

Participant 6 included in his response his belief that the IB program’s focus on critical thinking was a good match for 21st century education. He stated that IB combined with their strong arts program delivered the 4Cs of 21st century skills in an exceptional manner.

**Personalized learning.** As with the pattern of the college and career readiness theme, personalized learning is a theme that appears in the responses to many different questions. In response to research question 4, Participants 1, 3 and 5 talked about elements of personalized learning as major initiatives, although the concept held different meaning for each one. For Participant 1, this meant moving towards multi-age and multi-grade classrooms where each child gets what each child needs. For Participant 3, this meant the personalized learning paths in the academy model. And for Participant 5, this
meant the workshop model of instruction and problem-based learning. Participant 5 stated his view of personalized learning as follows:

*You should be giving your kids what they need all the time, when they need it, and not just during this 30 minute break period. What we want to see is workshop. We want to see quick mini-lessons, give them the overall content but then let’s break into small groups. Some of the teachers are using the math menu, where the kids are making some big time choices on their own, you know, guided through some assessment, but we’re really pleased with how far we’ve come with differentiation in a short time. And WIN [What I Need] really helped us, even though it’s kind of being wrapped into the workshop model itself. It was a good launching point. But we needed more, and we needed it not to be thought of as this one and only time we could differentiate instruction.*

**Professional learning communities (PLCs).** Participants 5, 7, and 8 talked about implementing or improving PLCs as a major initiative in the transformational work of the district. Based on the work of Richard DuFour, a PLC is a structure that allows teachers to collaborate, learn from each other, and learn jointly from the data at hand. Participant 8 described what having effective PLCs means to his district:

*It really just created this really cool collaborative culture. And I know a lot of people talk about PLC, but I have not seen it anywhere as collaborative as this. Teachers have been working together on questions and answers for common assessments, analyzing data after an assessment is taken, redesigning and refining units. It’s really, really cool to see the power of PLCs implemented with fidelity, and we’ve done that, and that’s really, really awesome to check out.*
Participant 7 described the shift in mindset that had occurred in his district as a result of PLCs: *We used to say ‘we have PLCs,’ now we say, ‘We are a professional learning community’*. He further described the process of working with the teachers’ union to agree on scheduled collaborative times and in doing so went from having three hours a month to three hours a week of PLC time for teachers.

Participant 5 described how he used PLCs to give teachers time to plan units of instruction and problem-based lessons around the standards. He stated that although teachers didn’t like to be out the classrooms, he believed this was the best use of their time because, in the long run, he was sending them into the classroom better prepared.

Teacher collaboration also emerged as a theme under Research Question 5 as a strategy for professional development. Whether the participants viewed teacher collaboration as a major initiative or a strategy depended on the importance they placed on it in the transformational change process.

**Research Question 5**

Research Question 5 was: What specific operational strategies do superintendents of exemplar 21st century school districts perceive as being most significant to the transformation of their school district? The question was stated to participants in the interview as follows:

*What are the specific operational strategies you have used to implement 21st century learning in your district? Tell me a little about each one.*

Follow-up probes to this question were: human and financial resources, professional development, internal and external communication.
This section presents the participants’ responses to Question 5 by theme. Six themes emerged from the participants’ responses to this question: human resources, financial resources, strategic planning, communication, professional development, and team building/relationships. The frequency of references and source data coded to these themes are found in table 11.

Table 11

*Codes and Frequencies for Research Question 5*

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<tr>
<td>Team Building/Relationships</td>
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**Human resources.** Participant responses referring to principal selection strategies and restructuring decisions related to the change process are included in this theme. References to principal-superintendent relationships and building cohesive teams are included in a separate theme for that purpose.

Participants saw principal hiring decisions as a critical function of their role as superintendents. Participant 1 and Participant 8 both talked about looking for strong instructional leaders in their principal hires. Participant 1 stated succinctly what she looked for, working in her central vision of personalized learning:

*First and foremost the leader is child centered without exception and their vision*
for learning is built around that belief system that we put kids first and that all children get what all children need.

She also stated that she looked for people who were not afraid to take risks and who would bring diverse thinking to the group. She didn’t want people who were like herself, other than to share her core beliefs about children; rather she preferred to enhance her team by filling it with diverse thinkers. Participant 8 added to this way of thinking that if you are going to make bold statements about change in your district, you had better recruit principals who are strong instructional leaders and abandon the “your turn next” philosophy.

Four participants referenced restructuring staff in their responses to Question 5. Participant 3, the superintendent who completely restructured her district to a career technical pathway model, told a story in which she had so much staff turnover, eventually only the secretary was left standing in one of the schools:

That was a very difficult time, because we were getting rid of auto body, mechanics, things that had traditionally been in a Vocational school, so there was money there, but we had to reallocate it towards some training that would be based on regional needs and data. So we did a lot of data, we did a lot of conversations about why we’re making the change.

At that point, she said, she was in a position to do so much hiring, that she admitted she made some wrong choices about people. Consequently, in the next year, she had a fifty percent turnover again. Finally, in the third year, she had assembled a staff with a solid understanding about the program and the time commitment. Participant 3’s story reflected some of the difficulty experienced in the human resources strand.
Participants 6 and 7 both talked about making restructuring decisions at the district office level in order to funnel more resources toward instructional coaches. Participant 6 described how this worked in his district:

*So I took part of those funds to pay three separate teachers – elementary, middle and high school – a stipend that was the equivalent of a period of release time, so that as part of an FTE, it was like 15% of an FTE. We calculated how much that would be and then gave them that additional stipend and then gave them the autonomy to develop staff development plans.*

Participant 7 agreed with this, stating: *We felt like we could get more bang for our buck by hiring people who were going to be working more closely with students. So that’s where we decided to spend some of our resources. By doing this, he was able to hire more foreign language teachers and implement his biliteracy initiative.*

**Financial resources.** Although financial strategies are present at almost every level, four participants specifically referenced budgetary decisions as a strategy. Participant 2 titled this: *putting our money where our mouth is,* which she crisply described as follows:

*I had to make sure that the budget would support the initiatives and would support the teachers when they wanted to move forward…I never wanted a teacher to feel like they couldn’t try because of a lack of resources, so I really always made that a priority.*

As one example, she cited how she set aside $10,000 for staff visits to innovative schools and districts in other states.
Participant 3 explained that her career technical pathway initiative came just as the governor was also signing a bill to allocate more funds for college and career readiness. The timing, she said, was fortunate, and allowed her to allocate funds to expensive programs and trainings such as Project Lead the Way. Participant 8 also referenced allocating resources to expensive initiatives such as his technology initiative, for which he asked his board to set aside eight million dollars out of the general fund.

Participant 6 talked about cutting resources in some areas in order to allocate funds to his change initiatives. For example, he found money for staff development by cutting contract services for special education and bringing them in-house.

**Strategic planning.** Several Participants referenced strategic planning and working with their board of educations as a specific strategy. Participant 3 and Participant 5 specifically referenced the strategic planning process. Participant 3 and Participant 4 also referenced the board of education.

Participants 3 and 5 both stated that they took up to a year to engage in strategic planning before implementing the change process. Participant 3 involved her board of education in the planning process, creating the shared vision and setting goals as a team. Participant 4 also stated that he did quite a bit of work with his school board. Participant 5 referenced Lencioni, a leader in the field of team management, in his response:

*So I didn’t come in and blow everything up. Even though some people think I did. It was a really strategic process. It really was about trust, when you break it all down – like Lencioni says.*
Communication. Coded under communication were direct responses to communication strategies as well as references to listening as a communication strategy and gathering stakeholder input. Participants 2, 3, 7 and 8 agreed that when you communicate at the start of the change process, you have fewer communication problems in the midst of things. Regarding external communication, Participant 2 articulated how districts need to tell their own stories, or risk that the press will tell it for them. Regarding the importance of being a good communicator, Participant 2 stated:

There’s so much to be said for being really open and being a really good Communicator. I think there’s some really important lessons that can be learned from what we did. But I think there’s so much to be said for making it safe to try, and for celebrating and for being very open and being a really good communicator.

Participant 3 stated that before she implemented the career technical pathway model, she personally went around to each high school and talked to every freshman and sophomore in the district. She believed that students needed to understand the changes that were about to happen to them. Participant 7 shared a similar belief but in relation to teachers. When launching the one-to-one technology initiative, he made sure his teachers first had a good grasp of the changes that were coming. He stated that teachers are the front line. If they are happy, then most likely the parents and students will be happy as well.

In his response to this question, Participant 8 talked about celebrating successes as part of the communication process. This is similar to Participant 2, who saw the importance of writing her district’s story. By celebrating successes, superintendents are able to highlight the positive achievements of the change process. Participant 8 also saw
the importance of communicating the right message. He stated that even though he knew his district was in the midst of second order strategic change, he never messaged it that way. He just wanted his stakeholders to believe that he was building on a great foundation, thus honoring the district’s tradition of excellence.

Listening intentionally as an important informal communication strategy emerged in the responses of several participants. Participant 8 told the story of his listening tours and how he paid attention to his dress code:

>You know, I hold office hours in every building where I just go sit in the faculty lounge twice a year during their lunch hours, and just sit and talk and let people come and say whatever they have to say to me – positive, negative. A lot of people come and just talk about their lives and their personalities, and all that’s sort of wonderful. And I never wear a tie when I go to those, because it’s an opportunity for me to be viewed as approachable as I think I am (laughs) but when you’re over sitting in your superintendent’s office, you’re never approachable. So that’s been awesome for me as an informal communication part.

Participant 5 stated that being able to listen, reflect, and respond is critical. He implemented an almost identical strategy of “listening tours,” described as follows:

>Currently I’m doing listening tours, where my assistant superintendent and I go to each of the schools. We host three at the elementaries and five at the junior high, and we listen. And sometimes it’s not very pleasant, and sometimes I get a little grumpy, because change is hard. But people have to say that [name redacted] and I are listening and we do make changes, because we’re not perfect.
Participant 2 also stated that she always took the time to listen, even to her critics. She stated that she never turned down meetings, believing that she could learn from her critics. This strategy, she said, resulted in people being unafraid to approach her with ideas, because people knew that if there was a better idea, she would listen.

Participant 2 also held think tank groups and invited everyone. She stated that one time she even had a second grader come and sit with the adults, and she didn’t care, nor did she limit. She allowed the kids to be part of the planning, stating: *Our kids really knew that we were really trying to do things differently and they were very much a part of it.*

**Professional development.** Professional development as a theme is woven throughout the participant responses to questions. In this section, it is discussed as strategy for implementing change by four participants. Participant 4 referred to professional development as: *the best pieces of the strategy.* Participant 5, who also referenced professional development as a major initiative, described the overall change in philosophy about professional development for the 21st century in the following response:

*They used to bring in a lot of guest speakers, and that was when I said, that’s not what we’re going to do. I believe in internal. We learn from each other. And there are times we reach out, but for the most part right now I think we have a lot of internal knowledge and we really need to spend time on the planning. I really believe in professional development through the planning process in a more authentic manner that allows it to come alive, because those are the times when teachers really ask the tough questions.*
Participant 6 also talked about teacher-led professional development as it related to his International Baccalaureate initiative. He stated: *Our teachers have been meeting on their own, to come up with ideas to improve instruction and to implement the changes for the IB program. And that has been led by teachers. Teacher leaders are meeting and facilitating.*

**Team building and relationships.** Relationships and team building strategies emerged as the strongest and most-referenced theme in the participant responses for this research question. The strongest ideas to emerge within this theme were trust and the importance and intentionality of the superintendent-principal relationship.

Participant 8, for example, intentionally flattened his organizational chart as an effort to break down individual silos and build a cohesive team. One of the first things he did as superintendent was to have an all-administrator meeting. In this meeting, he told his principals,

*Going forward, you are no longer the principal of [name redacted] High School. Rather, you are a member of the senior leadership team of high school district [name redacted], whose current responsibilities happen to be that of the principal of [name redacted] High School. So we really needed people to shift from a building focus to a district focus and we knew that the only way we were truly going to be able to make this significant transformation.*

He and his principals then sat down and created a list of norms as a team. He stated that this was done very purposefully to: *clearly identify the importance of the role of the principal.* One of their norms was to support the will of the team, both explicitly and implicitly. He believed this was so important because he needed his principals to
carry his message forward, and he couldn’t have them “rolling their eyes” while they did that.

Participant 5 also talked a great deal about building trust in his team as part of his response, which closely aligned to Participant 8’s response:

You know, you figure I’ve been here a year and six months, and we started some pretty big changes early on in my time. So trust had to be one of those strategic pieces that I knew I needed to build within my team that was closest to me, because I knew the district really trusted these people so it wasn’t like I could come in and clean house, nor did I want to. But I did need them to believe in the things I believe in.

To do this, he said, there was a great deal of time spent having hard conversations about who they were and where they wanted to go as a district. He stated that he recognized the importance of allowing others to give him honest feedback on his ideas, and to be able to express their own. He stated that when they started doing this, then he knew that trust had been established on his team.

Participant 4’s response aligns with the Participant 5 and Participant 8. He stated that the relationship between him and his principals was very important and very intentional. Like Participant 8, he stated the importance of having his principals be able to carry his message forward to the community:

So the principals are doing at micro level the same thing I’m doing at the district level, at the building level, so they’re communicating the message in a more personal way to their neighborhood communities and especially to their individual staffs.

Participant 4 also referenced Marzano’s work on defined autonomy and loose-tight relationships. Describing this concept, he stated:
We try to be very clear about every initiative what’s tight and what’s loose, and we try to be very explicit about how we articulate that so we do recognize that each of our buildings serves as a different community, as a different staff, has different student needs. And we encourage them to use all of the flexibility that they allow. The tight-loose thing is very big in our district.

Participant 5 also said that he is a loose-tight leader, holding tight on the vision, but allowing flexibility in the implementation.

**Research Question 6**

Research Question 6 was: What change models do superintendents of exemplar 21st century school districts use to implement 21st century change? The question was stated to participants in the interview as follows:

*What model or models of change did you use to guide your process?*

Follow-up probes to this question were: transactional versus transformational change or first-order versus second order change, overcoming barriers and resistance to change, systems thinking, and mindset.

This was the most difficult question for the participants to answer. Most revealed that although they were well-read on change processes and skilled in change management, they couldn’t point to a single change model that they used. However, they were able to speak in-depth about the change process as it occurred in their districts.

This section presents the participants’ responses to Question 6 by theme. Five themes emerged from the participants’ responses to this question: systems thinking, transformational change, references to specific authors, persistence, and barriers to change. A subtheme emerged under barriers to change, which includes references to
state legislation as a barrier to innovative change. The frequency of references and source data coded to these themes are found in table 12.

**Table 12**

*Codes and Frequencies for Research Question 6*

<table>
<thead>
<tr>
<th>Code</th>
<th>Number of Participants</th>
<th>Number of References</th>
</tr>
</thead>
<tbody>
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<td>Systems Thinking</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Transformational Change</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Specific Authors</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Persistence</td>
<td>3</td>
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<td>8</td>
<td>14</td>
</tr>
<tr>
<td>• State Legislation</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Systems thinking.** Participant 1 and Participant 8 referenced systems thinking in their responses about models of change. Participant 1 stated that for her it was very much about systems and systems change. She stated that she felt it was important to break down silos in an effort for people to see their part of influence on the system. She noted that often this can be a complex process, because once you cross over lines into someone else’s realm, they can feel like you are micromanaging their work. She continued:

*Whereas we simply need to keep focused on what does the system need, and why are we doing what we’re doing, and how does my work influence yours, and how does your work cross over into my mine.*

Participant 8 labeled himself in his response as a huge systems guy, stating his belief that it’s the only way there can truly be institutional change. He articulated it when
he stated: *I talk a lot about looking for access points for leverage, you know, taking advantage of leverage when we can find it and when we can access it.*

**Transformational change.** Three participants talked about their change work as a transformational model. Participant 1 tied this into her response on systems change:

*Transformational change is for me the only way you can create system change so if we aren’t going to transform our ultimate identity than we’re simply building new boxes – we’re changing at a very superficial level as opposed to a fundamental and organic level.*

Participant 5 qualified his response by stating that he didn’t *want to sound arrogant*, but that he understood the change work he was doing at the district was transformational. Participant 8 also articulated that he understood the nature of his work and that he only ever thinks about transformational change:

*And so while I only think about transformational change; I never think about transactional change – I’m always very cognizant of the lens through which I am communicating to ensure that I am always walking a delicate balance between first order and second order change.*

Participant 3 described herself as being *big on transformational change*, but described a process in which she had to get directly involved to guide the change when some of her leaders proved ineffective.

**References to specific authors.** Four participants referenced specific authors of change literature when responding to this question. Among these superintendents, Senge, Fullan, and Ambrose are the most often referenced works.
Participant 1 referenced Peter Senge, Michael Fullan, Margaret Wheatley, and Bolman and Deal as authors who were influential in her thinking on change process. Speaking of Margaret Wheatley’s writing on chaos and ambiguity, she stated:

*I still read and love Margaret Wheatley even though she’s changed some of her ideas, but early in my career I found her work on systems change to be – it really resonated with me. You really have to be willing to step into a level of chaos and ambiguity in order to rebuild and reimagine and re-envision. So her work has been important to me.*

Participant 1 also referenced a chart on complex change that hung on the wall in her office. This chart was also referenced by Participant 5 as hanging on his office wall, and he was able to identify the author as Ambrose, 1987. Ambrose’s chart on managing complex change lists the five factors of change that must be present to create lasting change: vision, skills, resources, incentives, and an action plan. The chart shows the organizational symptoms that result when each of the five factors are missing. Thus, change managers can identify the missing factor by first identifying the symptom such as anxiety, confusion, or frustration. Besides the Ambrose chart, Participant 5 also referenced Lencioni’s *Five Dysfunctions of a Team.*

Participant 2 also reference Michael Fullan in her response, stating that she was re-reading *Leading in a Culture of Change,* now that she was living it every day. She confessed that she was seeking validation of her own work in Fullan’s writing. *I am anxious to see if what I did naturally fit Fullan’s model of change.*
Like Participant 1, Participant 8 referenced Senge’s work on systems change, stating that he had pretty much been indoctrinated with it in his doctoral work, and bought the Kool-Aid.

**Persistence.** In their responses to this question, several participants referenced the difficult nature of transformational change, and the persistence required to persevere through the process. Participant 5 stated it as follows:

*This change thing is hard. It really is. We try to be very intentional about everything we do. And again, we’re not perfect. We stumble, trip and fall a lot. And we talk to our staff a lot about taking risks. But risks, it doesn’t always feel very good. But we’re there – we try to be there when people fall, try to be there to pick people up. That’s why educational change I think doesn’t always happen. You have to believe in it; that’s the easy part. The hard part is being consistent and being there over time to see through the change.*

Participant 6 talked about his challenge in similar terms:

*I think the challenge for me as a superintendent, you have to be able to stay the course and be willing to accept compromise in the process. I have to be patient and be willing to slow down the pace, because you really want to get there. Otherwise, it can be a flash in the pan and you won’t get there.*

He also stated the danger that superintendents face of giving up and moving on to something else when the results don’t come as quickly as they want to see them.

Finally, Participant 8 also talked about staying the course. He cautions superintendents to realize that it is not going to be easy, but that as long as they stay committed to and
grounded in what they are doing and keep a good group of people behind them, they can experience the change success they want.

**Barriers to change.** Each participant gave an opinion about what things are barriers to the change process and get in the way of transformational change. Responses were varied and included: poor communication, declining enrollment, fear of change, lack of resources, teacher certification and evaluation processes, and veteran staff content with the status quo.

Participant 6 defined the challenge as follows:

*I think that barrier is kind of human nature to say, when are we done? And the challenge for us is to communicate to people: We’re never done. It can be good, it can be great, it can be fabulous, but that doesn’t mean it’s done. It’s like a professional athlete – every year you have to have to prove yourself. And I think that is a barrier we have to overcome.*

Participant 1 explained her belief that fear of breaking away from the status quo was the biggest barrier:

*Fear I think is the biggest barrier that if we change this paradigm that we’re so comfortable with and we’ve known since the beginning of public education, then there’s fear that once we take the box away, that children will in fact be harmed.*

**State legislation.** A strong sub-theme that emerged within the barrier theme was the concept of state legislation as the biggest barrier to district innovation. The superintendents who referenced this point were very passionate about it. The converse was also true. Participant 2 talked in her interview about how the supportive nature of the state allowed her to be innovative. However, the opposite is true for most of the
superintendents who participated in this study. Participant 5 was most passionate and articulate on this matter:

Legislators – it absolutely frustrates me that they’re making laws and rules, that they have no clue what they’re doing. I’ve become very frustrated. Here in Illinois it’s about holding teachers accountable to assessment data. There’s no research that shows that this is beneficial. There’s no research that shows that this is going to work over time, that you keep hitting people over the head with a stick – does not work. Elsie Comb’s work speaks to this largely. It just – these are the things that drive me crazy. Yet, let me hold my principals accountable.

Participant 7’s response aligned closely with Participant 5, articulating the difference made when those barriers are lifted. In his response, he stated:

I think the biggest barriers are the laws, rules, and regulations as far as the state level, that we have to deal with. There are some things they do that drive me nuts, like they do in any state, but when they gave us the authority to allow students to gain credit around their competencies and if they’ve met the standards, once that happened, for us personally in our district, the barriers were no longer there.

Participant 8 summarized the problem and his frustration with it fairly succinctly:

We just have so many stupid regulations in this state (laughter) and it really prevents us from being truly innovative in a lot of ways. We would love to offer some blended courses where kids could do some work online and do some seat work a couple of days and a week, and give them more opportunities to access some elective classes and to be creative in that way. But there are just so many restrictions – for what? It’s just really, really frustrating sometimes not to be able to get that done.
Throughout the interviews, the researcher heard the ongoing frustration of innovative superintendents who were thwarted by state legislation and state accountability. It was only in a rare case that a participant would express that the state was supportive in innovative endeavors rather than imposing a system of constraints.

Closing Statements

At the conclusion of each interview, the participants were asked if they had anything else they wanted to add. Their closing comments are as follows:

Participant 3. We’ve been in education a while and just want to see things really change in our life time. I’ve always been wanting to change the way things were when I was in High School. And now I have a forum to do that.

Participant 4. Well yeah, this may sound kind of corny but I really think it’s true. What drives 21st century teaching and learning really needs to be the same thing that drives our hiring practices, our selection of instructional materials and just really how we do business. It really needs to be brought back to what our students need and how we can best serve our students. And using those same drivers for all of our initiatives, even if there are things that don’t tie directly to the classroom because then I think the community and the school board for sure, hopefully the teachers and other employees see that we’re not just randomly doing these initiatives because they’re sexy or because it will make a splash or whatever. The same things are driving all of what we do and then when we do that we can integrate those initiatives much more meaningfully too. People start seeing the interconnectedness of each of these initiatives that may seem disconnected at the outset.
Participant 6. I think some superintendents get frustrated because results don’t come in as quickly as you want, and then you move on to something else. The other thing I’ve learned is to get good buy-in. Find out who your real quality teachers are and get their opinion before you move forward. Because they can give you a lot of valuable insights. And then once you go down that road, they’ll be great supporters and help bring other people on board.

Participant 7. Leadership matters. Multiple people involved in leadership positions. I do think superintendents are important but we want to develop a system that is ingrained when I’m gone or when [name redacted] is gone, that this is just how we do business. We talk about it all the time, but a lot of decisions we make are about adults, and we really want to make sure we make it about the students.

Participant 8. You know, just staying the course and knowing it’s not going to be easy but as long as you’re committed to what you’re doing and you’re grounded in it, and have a good group people behind you. It was really important for me to keep my board informed whenever we were going to do something significant. And as long as we kept open lines of communication and messaged it as the logical next step, things have really been good.

The participants’ closing statements stamped the data with a measure of clarity, allowing each participant the chance to summarize in just a few sentences their perceptions about their roles as superintendents as leaders of the transformational change process in their districts.
Summary

This section presented the data and findings from interviews with eight superintendents of exemplar 21st century school districts. Based the analysis of themes and pattern in the data, there does appear to be some key similarities between the eight cases, although each case is unique in its implementation of 21st century change. Overall, the findings reveal that successful superintendents embrace an organic rather than a prescribed process for implanting 21st century change. There was a wide variety of definitions of 21st century skills, but common themes emerged, namely college and career readiness, global awareness, standards-based instruction and assessment, personalized learning, and technology. A significant finding emerged regarding the primacy and nature of the superintendent –principal relationship.

Chapter V offers conclusions, implications, and recommendations based on the findings presented in this chapter.
CHAPTER V: CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Overview

This chapter presents the summary and conclusions of this qualitative multi-case study, as well as recommendations for further study. The major findings are presented by research question and theme, as well as the unexpected findings. Conclusions are then presented, tied to the findings and the review of research and literature. Finally, recommendations for future research and practices are provided. The chapter concludes with closing remarks and reflection.

Summary of the Study

Research Problem Studied

The world as we know it has been changing rapidly and profoundly since the turn of the 21st century (Friedman, 2006; Trilling & Fadel, 2009; Wagner, 2012). Citizens across the globe are more connected than ever by technology and have instant access to massive amounts of information with the click of a mouse. Economic swings in one country have massive ripple effects worldwide. There are strains on basic resources—food, water, and energy—such that global cooperation on environmental challenges is essential. The convergence of powerful external change drivers require a fundamental and transformational shift in the role of education, in order to produce students who will have the skills necessary for college, career, and life in the 21st century (Friedman & Mandelbaum, 2011; Kay & Greenhill, 2013; Trilling & Fadel, 2009; Wagner, 2012).

School districts across the nation need transformational leaders capable of leading in times of rapid and profound change. Transformational change is deep and pervasive, affects the entire organization, requires a shift of culture and mindset, is consciously led
and intentional, and occurs over time (Anderson & Ackerman Anderson, 2010; Eckel, Hill, & Green, 1998). Transformational leadership is more than just effective leadership for school improvement. Current research shows that district leadership is positively correlated to increased student achievement (Marzano & Waters, 2009; DuFour & Marzano, 2011; Supovitz, 2006; Epstein et. al, 2011). However, this research has focused only on student achievement as measured by standardized assessment. Analyses of district leadership initiatives and strategies have been conducted in districts selected according to their high academic achievement (Leon, 2008; Supovitz, 2006; Marzano & Waters, 2009; DuFour & Marzano, 2011; Cantu, 2013; Clark, 2009; Anderson et. al, 2012). Yet few studies have analyzed superintendent leadership strategies and initiatives in districts that have successfully implemented the transformational paradigm shift towards a model of 21st century learning.

**Purpose Statement**

The purpose of this qualitative study was to describe how superintendents of exemplar 21st century school districts implemented a 21st century model of education in their districts by identifying the change drivers, visions, frameworks of 21st century skills, major initiatives, strategies, and change models used in the implementation of change.

**Research Questions**

The following six research questions guided this study. The first three questions were developed to understand the background and context of the change process by identifying change drivers, vision, and frameworks of 21st century learning that influenced each participant. Questions four and five were developed to identify the broad initiatives and also the more specific management strategies used by the superintendents
during the implementation of 21st century change. The sixth and final question was developed to understand the superintendents’ perception of the change process itself, including the process by which they overcame barriers and resistance to change.

1. What factors influenced the decision of superintendents of exemplar 21st century school districts to begin a change process in their district?

2. What are the visions for their districts held by superintendents of exemplar 21st century school districts?

3. What frameworks and definitions of 21st century teaching and learning were used in the implementation of change by superintendents of exemplar 21st century school districts?

4. What major initiatives have superintendents of exemplar 21st century school districts taken to implement a culture of 21st century learning?

5. What specific operational strategies do superintendents of exemplar 21st century school districts perceive as being most significant to the transformation of their school district?

6. What change models do superintendents of exemplar 21st century school districts use to implement 21st century change?

Methodology and Data Collection

This study used a qualitative multisite case study to examine the realities of district-wide change as they were understood and reported by eight superintendents of school districts identified as exemplar school districts by the Partnership for 21st Century Skills. Change processes, initiatives and strategies were explored through semi-
structured, recorded interviews with each participant. This approach enabled the researcher to investigate a small number of cases involving successful superintendents.

A semi-structured interview protocol was developed by the researcher, using two demographics questions and eight open-ended question stems based on the research questions, to give the researcher context, background, and insight into the participants’ understanding of 21st century education. Probes were written under three of the open-ended questions in order to guide the researcher in soliciting deeper and more detailed responses from the participants. The interview protocol was field tested with a superintendent who was not connected to this study in order to elicit feedback on the questions and the process.

Participants were assigned a participant number based on the chronological order of the date and time of their interview. All eight interviews were conducted using a virtual meeting platform. The researcher asked each participant an identical set of ten question stems.

The participants often explored topics beyond the scope of the research questions as the researcher probed for depth and clarification. Such themes were also analyzed, as they added breadth and depth in understanding the role of the superintendent as change leader and the processes of change as they occurred in each participant’s school district.

Transcripts of the recorded interviews were analyzed and coded for themes by question response using NVivo 10 software. When all of the text had been coded, the researcher searched for connections between all of the themes, even as they crossed over between questions, thus identifying broader patterns and contexts.
Population and Sample

The population for this study was the pool of superintendents in the US who lead exemplar 21st century school districts, as found on the list of Exemplar 21st Century Schools and Districts found on the Partnership of 21st Century Skills’ website. Exemplar 21st century school districts are defined as districts that have clearly evident practices in six indicators, using the Partnership for 21st Century Skills rubric, and verified during a visit of experts in the field. At the time of this study, twenty four districts or schools within districts appeared on the list.

Eight superintendents responded affirmatively to the email participation letter and returned informed consent forms. Of these eight, three were female and five were male. The years of serving as superintendent in their current district ranged from two years to ten years. The districts comprised rural, suburban and urban areas and ranged in size from 300 to 32,000. All of the participants were superintendents of school districts located in middle America, in the states of Iowa, Illinois, Wisconsin, and Kentucky. The participants are numbered in order of the date and time of their interview. Because this study was conducted as an anonymous study, neither the name of the participant nor the school district is identified in the presentation of findings and conclusions.

Major Findings

Several major findings emerged from this study that are supported by findings in the research literature on 21st century education and educational change processes, specifically as they relate to the superintendent’s role in leading transformational change. Themes emerged both within and across the research questions. To provide an organized
and clear summary of the findings, this section is organized by research question. The findings are then connected to the research findings in the review of literature.

**Major Findings from Research Question 1: Factors of Influence**

Research Question 1 was: What factors influenced the decision of superintendents of exemplar 21st century school districts to begin a change process in their district?

An analysis of the findings revealed the following factors that influenced the participants’ decisions to begin 21st century change processes in their district: 1) factors in the local community, 2) a sense of complacency in the district, 3) the students’ need for global literacy, 4) the students’ need for skills that will allow them to compete in a 21st century market, 5) students’ desire for change, and 6) the participant’s knowledge of current research and literature on education. These factors, taken together, impressed upon the participants a sense of urgency to challenge the status quo, and to communicate this same sense of urgency to their local communities. Some of these factors of influence came from within the community and from the students themselves, whereas some developed from the participant’s own reading of current literature and research that contributed to a rising awareness of the changes in the global marketplace that require students to be educated differently.

**Community.** Several participants reached out to their community as one of the first things they did to discover the need for change and the direction of that change. Community in this context includes businesses and employers. Participants discussed how they would then seek to find gaps between what was needed and what was presently occurring.
Engaging and supporting community involvement is identified in the literature as a key leadership behavior necessary in leading transformational change and as part of the complex demands placed on superintendents in planning and implementing major change programs (Wolf, 2011; Ireh & Bailey, 1999; Schrum & Levin, 2012; Kay & Greenhill, 2013).

**District complacency.** Complacency refers to the impetus for change that occurs when a superintendent notices that the district is content to stay as it is. Usually due to high achievement or a high socioeconomic base, teachers and parents in these districts do not notice external drivers for change, due to internal stability. Participants who noticed complacency in their high achieving school district saw that as a mandate to educate their districts on the urgent necessity of change for the 21st century.

Understanding complacency, or satisfaction, with the status quo is seen in the research literature as critical when planning for transformational or second-order change. Second order change is perceived as a break from the past, lies outside existing paradigms, and may be resisted because only those who have a broad perspective of the situation see innovation as necessary (Marzano, Waters, & McNulty, 2005).

**Global awareness.** Global awareness refers to superintendents who became aware of the need for the students in their district to have a wider perspective and appreciation of global cultures and languages in order to be able to compete in a global society. This was particularly true for superintendents of districts in homogenous populations who recognized a critical lack of diversity. Three of these superintendents used this factor as a springboard for implementing a biliteracy or multi-literacy initiative in their districts. Externally, the interconnectedness of the world is referred to as
“globalization” and has profound implications for education, which now must prepare students for life in a global society.

This finding is supported in the research. Education must offer new opportunities and skills that allow students to collaboratively and creatively solve challenging global problems, find jobs in a global job market, and interact with people from different cultures and countries as global citizens (Harrison, 2013; Zhao, 2009; Friedman & Mandelbaum, 2011; Trilling & Fadel, 2009; Wagner, 2008).

**Skills for a 21st century marketplace.** The theme of 21st century skills as a change driver refers to the participants’ responses in which they demonstrate a keen awareness of the changing labor market in this century. It refers to an acknowledgement that students need to learn a particular skill set in order to be successful in the workplace and in society.

The notion of a constantly moving and unknown future shifts the burden of education from a content-based to a skill-based emphasis for a labor market centered on knowledge, as the Knowledge Age economy has replaced the Industrial Age economy (Schlechty, 1990; Trilling & Fadel, 2009; Zhao, 2009). The Knowledge Age is represented by a flat world concept (Friedman, 2006), connected global markets, digital communication and blended cultural traditions. It values data, information, knowledge, expertise, and service-based work over manufacturing and products (Trilling & Fadel, 2009; Bereiter, 2002; Wagner, 2008). Skills needed for this type of work include creativity, critical thinking, collaboration, and communication skills (Partnership for 21st Century Skills, 2011).
**Student-centered change.** The participants recognized and articulated the student-centered purpose of all educational change and talked about this phenomenon as a change driver in their district. The theme of student-centered change carried across a great deal of the responses and could be thought of an broad-umbrella finding, encompassing all responses in which participants demonstrated they were thinking foremost about the students’ needs when deciding to implement change.

This finding is supported in the literature. Trilling and Fadel (2009) used the term “digital natives” to refer to the first generation of children to grow up surrounded by and immersed in digital media. Digital natives have a new set of expectations that put new demands on the educational system to make learning interactive, personalized, collaborative, creative, and innovative (Trilling & Fadel, 2009; Tapscott, 2009).

**Current research and reading.** Six of the eight participants cited research, literature, or specific books as one of the factors of influence on their decision to implement 21st century change. Tony Wagner’s *The Global Achievement Gap* was referenced by three participants as a major source of influence, while Robert J. Marzano’s works were cited by two participants. Other specific authors that received at least one reference were Jim Collins, Lucy Calkins, Michael Fullan, and Richard DuFour. Clearly, the participants in this study were well-read individuals who were informed, influenced, and inspired by the current research in their field.

**Major Findings from Research Question 2: Vision**

Research Question 2 was: What are the visions for their districts held by superintendents of exemplary 21st century school districts?
The clear articulation and communication of a shared district vision was found throughout the literature on change leadership, as both a key strategy (Kay & Greenhill, 2013; Marzano & Waters, 2009; Portis & Garcia, 2007) and as a key element in defining the role of the superintendent with respect to district reform.

An analysis of the findings revealed the following elements most commonly present in the participants’ district visions: 1) 21st century skills, 2) global readiness, 3) college and career readiness, 4) personalized learning, 5) risk-taking and trust, and 6) a shared vision. The first two findings were discussed in-depth in the findings for Research Question 1 on factors of influence; the second two findings are discussed in-depth under the findings for Research Questions 4 on initiatives; the remaining two are discussed in this section.

**Risk-taking and trust.** This finding reflects the participants’ cultivation of a district culture that encouraged and supported risk-taking, while simultaneously developing a culture of mutual trust. Participant responses in this category articulated concepts of recognizing and celebrating success, multiplying the talents of the team, and holding an unwavering belief in people.

The ability to cultivate a district culture in which it is deemed safe to be innovative and to learn from one’s failure is supported in the literature as an important leadership behavior for transformational change (Fullan, 2001; Fullan, 2010; Anderson & Ackerman Anderson, 2010). Conversely, the absence of trust in a team or organization is given as one of the major dysfunctions of a team (Lencioni, 2002).

**Shared vision.** The participants described a process of generating a shared vision in teams that consisted of several key stakeholder groups: principals, teachers, board
members, members of a partner university, parents, students, and/or community members. Participants demonstrated an understanding that generating buy-in at the start of the change process is critical to the implementation of second-order change.

This finding is supported in the literature. Supovitz (2006) found that the central job of leaders of an effective organization was to develop, communicate, and support a coherent vision. Additionally, collaborative goal-setting emerged as one of the key leadership behaviors found to have a statistically significant (p < .05) correlation with positive student achievement (Marzano & Waters, 2009).

**Major Findings from Research Question 3: Frameworks of Learning**

Research Question 3 was: What frameworks and definitions of 21st century teaching and learning were used in the implementation of change by superintendents of exemplar 21st century school districts?

An analysis of the findings revealed the following frameworks were used by the participants: 1) Partnership for 21st Century Skills (P21), 2) other published framework, and 3) customized framework. Sub-themes that emerged within the customized framework finding were: 1) global diversity, 2) college and career pathways, 3) defined learner characteristics, and 4) personalized learning. These sub-themes corresponded to major initiatives and are discussed in the section on findings under Research Question 4.

**Partnership for 21st century skills (P21).** The P21 framework is the prominent framework for 21st century skills used in the US and is heavily referenced in the literature about 21st century educational change (Trilling & Fadel, 2009; Kay & Greenhill, 2013; Voogt & Roblin, 2012). A search on Google Scholar for “Partnership for 21st Century Skills” returned 4,840 references in other works and scholarly articles. Four participants
referred to using the P21 framework, at least in part, or because it matched what they were already doing. None of the participants expressed that the P21 framework was their primary source of information for defining 21st century learning, nor did they follow the framework exactly as written. However, each of the four said that it had some influence on their district’s work and perceptions of 21st century learning.

**Other published frameworks.** Participants referenced other theoretical frameworks, including problem-based or PBL, University of Chicago’s College and Career Readiness framework, and Learner-Centered Classroom Practices and Assessments (McCombs & Miller, 2007). As with the P21 framework, participants who referenced other published frameworks did not rely on any one framework in its entirety; rather, they combined elements of these with locally-determined best practices.

**Customized frameworks.** When participants discussed P21 or other specific frameworks, they generally added commentary to suggest that they took parts of many frameworks and combined them with elements specific to their own district’s needs, reflecting a much more organic process than using a prescribed framework exclusively or in totality. Participant 3 summarized the processes as “grabbing onto the things that made sense to us” and then designing those pieces to fit with the training they were receiving. Participant 5, on the other hand, explicitly stated, “We customized it for our district,” using a broad-based stakeholder group to reach consensus on the learner characteristics and skills they wanted to see in their own students.

Schaffer and McCreight (2004) supported the idea of organizational uniqueness and the rejection of a one-size-fits-all change model by citing the results of a landmark
Harvard Business School study (Beer, Eisenstat, & Spector, 1990) that organizational change efforts based on structured programs failed to bring about the planned change.

**Major Findings from Research Question 4: Initiatives**

Research Question 4 was: What major initiatives have superintendents of exemplar 21st century school districts taken to implement a culture of 21st century learning?

An analysis of the findings revealed the following major initiatives implemented by the participants: technology, 2) college and career readiness, 3) standards-based instruction and assessment, 4) student achievement, 5) personalized learning, and 6) PLCs. Each of these initiatives is also supported in the literature and will be discussed in this section.

**Technology.** As schools move towards the 21st century models of learning, technology will be the driving force as well as the key component of 21st century change (Friedman & Mandelbaum, 2011; Zhao, 2009; Tilling & Fadel, 2009; Tapscott, 2009). It is not surprising then that most of the participants implemented technology initiatives, and those who referenced technology clearly viewed it as a non-negotiable initiative in the transformation to 21st century education.

Nearly all of the participants viewed technology as a tool for students to be able to access information and the global society. Superintendents in higher poverty areas viewed technology as an opportunity equalizer. Most of the participants were moving towards a one-to-one ratio of devices to students, or they had already achieved such a ratio. Resources were allocated to support this initiative.
College and career readiness. In the review of literature on 21st century education models, all three of the models presented a life and careers skills component (Voogt & Roblin, 2012; Ananiadou & Claro, 2009). Life and career skills are defined by P21 as “the skills needed to navigate a complicated and changing world” (Olsen, 2010, p. 22).

For some participants, the implementation of career-based academy models was a major initiative. For one participant, this was simply the focus and end goal of the entire change process. Academies are grounded in student choice and academic integration and are not reduced to vocational pathways as they were once understood. Each academy was based on data done by a local university showing high-need job markets. The goal of the academies is that students obtain in-depth technical skills as well as authentic and relevant learning experiences through school-business partnerships.

Standards-based instruction and assessment. The responses included in this theme contain references to the implementation of CCSS and moving towards a standards-based grading system. Currently, the change in schools in most states is being driven by the implementation of the CCSS. Under these new standards, everything from classroom instruction to curriculum and assessment needs to be looked at through a different lens. The challenge of state-wide and district-wide mandated implementation of CCSS across all grades is a concrete part of the larger challenge posed by the pedagogical paradigm shift to 21st century learning. There is a widespread assumption that the implementation of CCSS as the single greatest wake-up call and opportunity for change for many local area school districts (Calkins, Ehrenworth, & Lehman, 2012; Kopp, 2013).
Student Achievement. This finding was generated from participants who implemented or increased program access to Advanced Placement and International Baccalaureate programs in high school settings. Participants used these programs to advance the 21st century skills of critical thinking, collaboration, communication, and creativity, which are deeply embedded into the core of the programs. These skills are referred to as the 4 Cs of 21st century skills and emanate from the P21 framework (Trilling & Fadel, 2009; Wagner, 2008; Kay & Greenhill, 2013). Participants made clear that this initiative was not a reach for improved standardized test scores, but rather than authentic initiative directed at improving college preparedness and student learning through increased rigor. The instructional focus is for students to think critically, problem solve, develop innovative solutions and communicate their ideas to others.

Personalized learning. Many participants implemented a personalized learning initiative, however there were a variety of ways that this occurred, from personalized career learning pathways, to multi-age grouping models and workshop instructional models. The concept of personalized learning, that “each child gets what each child needs” is supported in the literature on 21st century learning.

Key findings from new research on the science of learning identify authentic learning, mental model building, internal motivation, multiple intelligences and social learning as the pathways for genuine learning (Bransford et al., 1999). Internal Motivation comes from well-designed learning projects geared to student interests and patterns, which in turn promote active engagement, deeper understanding and a desire to learn more (Darling-Hammond et al., 2008). Research on multiple intelligence reveals
that personalized learning can have a positive effect on learning performance and attitudes toward learning (Gardner, 1999).

**Professional learning communities.** Participants talked about implementing or improving PLCs as a major initiative in the transformational work of the district. Based on the work of Richard DuFour, a PLC is a structure that allows teachers to collaborate, learn from each other, and learn jointly from the data at hand. Building professional capacity through structures of collaboration and a culture of continuous improvement is documented in the research as a strategy for creating sustainable change (Marzano, Waters & McNulty, 2005; Marzano & Waters, 2009; DuFour, DuFour & Eaker, 2008).

Teacher collaboration also emerged as a theme under Research Question 5 as a strategy for professional development. Whether the participants viewed teacher collaboration as a major initiative or a strategy depended on the importance they placed on it in the transformational change process.

**Major Findings from Research Question 5: Strategies**

Research Question 5 was: What specific operational strategies do superintendents of exemplar 21st century school districts perceive as being most significant to the transformation of their school district?

An analysis of the findings revealed the strategies most commonly used by the participants fall into the following themes: 1) human resources, 2) financial resources, 3) strategic planning, 4) communication, 5) professional development, and 6) trust-building and relationships.

**Human resources.** Participants saw principal hiring decisions as a critical function of their role as superintendents. Participants looked for strong instructional
leaders in their principal hires, as well as people who would support their central visions. However, participants also looked for original thinkers who would enhance the teams with divergent ideas. This concept is also a finding in the research literature. Wolf (2011) identified “selecting for fit” as a critical characteristic of transformational change. Leon (2008) also identified human resource alignment as one of six best practices linked to positive student outcomes in district-wide reform.

Financial resources. Marzano and Waters (2009) identified the allocation of resources to support the goals for achievement and instruction as one of the five specific leadership behaviors or strategies associated with student achievement. Participants specifically referenced budgetary decisions as a strategy. Participants referenced making sure the budget would support the initiatives and would support the teachers when they wanted to move forward. Several participants stated that they looked for creative ways to cut resources in other areas so that resources could be allocated to their 21st century initiatives.

Strategic planning. Several Participants referenced strategic planning and working with their board of educations as a specific strategy. Some stated that they took up to a year to engage in strategic planning before implementing the change process. Schlechty (2002) also clarified the work of the superintendent in leading change by issuing five statements of advice, one of which is to think and act strategically. Strategic planning is also supported by research literature on the educational change process, particularly in systems-thinking models (Fullan, 2001).

Communication. The communication or articulation of the vision to the learning community was seen throughout the literature as an essential strategy for leading change
(Duffy, 2008; Portis & Garcia, 2007; Marzano & Waters, 2009). The participants in this study were very intentional about their communication styles and strategies. Of particular note, the participants engaged in intentional listening, often embarking on “listening tours” and making the rounds of schools to get critical input or assembling diverse stakeholder groups for this same purpose. They were clear that choosing to hear dissenting and critical views as part of this process was a sometimes difficult but necessary strategy.

**Professional development.** Implementing effective models of professional development is a key strategy that is highly supported in the literature on educational change (Schrum & Levin, 2012). It is also one of the four implementation pathways of the P21 framework (Partnership for 21st Century Skills, 2011). The participants in this study described the overall importance of building capacity through professional development as a strategy for implementing a major change program. Participants viewed professional development as an ongoing and collaborative process in which teachers learn, coach and grow together rather than as learning from experts in the field.

**Trust-building and relationships.** Participants spoke at length about intentionally building relationships with the site principals and of building a culture of trust within the leadership team. Participants unanimously understood that principals carry the message of the vision forward to the community, and that there needs to be a coherent message. They talked about breaking down silos of principals’ work and developing in them a district-focus rather than a site focus. The participants were passionate and emphatic about the importance of this work as superintendents.
The relationship between principals and superintendents was also discussed in the literature surrounding effective district leadership as a key factor in work of district reform (Schlechty, 2002; Marzano et al., 2009; Suppovitz, 2006; Dufour & Marzano, 2011; Lambert, 2003). Schlechty (2002) maintains that more than any other factor, this critical relationship explains the ability of school districts to ensure that change efforts are sustained and that the positive effects are distributed throughout the system.

**Major Findings from Research Question 6: Change Models**

Research Question 6 was: What change models do superintendents of exemplar 21st century school districts use to implement 21st century change?

An analysis of the findings revealed the following common themes in the participants’ perceptions about the change process: 1) systems thinking, 2) transformational change, 3) references to specific authors, 4) persistence and resilience, and 5) barriers.

**Systems thinking.** In general, the participants were systems thinkers in their perceptions of district-wide change. Tied to their belief in the superintendent-principal relationship as stated earlier, the belief in their districts as interconnected systems of people and processes strongly influenced their approach to implementing change. Systems thinking has its origins in Katz and Kahn (1966) and is found in the change models of Lewin, Nadler-Tushman, Burke-Litwin, and Weisborg (Anderson, 2012). Systems thinking also figures prominently in the literature on educational change (Fullan, 2001; Fullan, 2007; Reigeluth & Squire, 2000).

**Transformational change.** Participants understood their change work in terms of transformational or second-order change. Transformational change theory is a major
finding in the research literature on educational change for the 21st century. Transformational change is deep and pervasive, affects the entire organization, is consciously led and intentional, and occurs over time (Eckel, Hill, & Green, 1998). For the context of school systems, Duffy (2008) adds that for change to be transformational, the school district must continuously seek an idealized future for itself, and that it must create a new system that is substantially different from the current one. Moreover, for transformational change to occur, a critical mass of stakeholders must demonstrate buy-in and commitment to make the efforts that will co-create a better future for the organization (Anderson & Ackerman Anderson, 2010).

References to specific authors. Four participants referenced specific authors of change literature when responding to this question. Among these superintendents, Senge, Fullan, and Ambrose are the most often referenced works. Margaret Wheatley, Bolman and Deal, and Lencioni also received mentions. Ambrose’s (1987) model of managing complex change was mentioned specifically by several participants as a chart that they kept hanging on their office wall and used often.

Persistence and resilience. In their responses to this question, several participants referenced the difficult nature of transformational change, and the persistence required to persevere through the process. This finding attests to the 2007 Stupski Foundation Study, which found that all of the fifteen superintendents in the study characterized district reform as “difficult work in largely uncharted territory with insufficient resources” (as cited in Portis & Garcia, 2007, p. 18). Yet most superintendents also said they were driven by a moral imperative for change, usually connected to a deep commitment to equity and social justice. In a finding supported by
the literature as well as this study, this moral imperative was found to be both a critical motivating factor and also a source of resiliency for overcoming organizational resistance to change.

**Barriers.** Each participant gave an opinion about what issues are barriers to the change process and get in the way of transformational change. Responses were varied and included: poor communication, declining enrollment, fear of change, lack of resources, teacher certification and evaluation processes, and veteran staff content with the status quo.

A strong sub-theme that emerged within the barrier theme was the concept of state legislation as the biggest barrier to district innovation. The superintendents who referenced this point were very passionate about it. The converse was also true. One participant talked in her interview about how the supportive nature of the state allowed her to be innovative. However, the opposite is true for most of the superintendents who participated in this study. Throughout the interviews, the researcher heard the ongoing frustration of innovative superintendents who were thwarted by state legislation and state accountability.

**Unexpected Findings**

The first unexpected finding is that successful superintendents favored a more organic and customized approach to implementing change for 21st century education. Rather than use prescribed frameworks of 21st century skills, the superintendents in this study used a process by which they gathered input from the community, worked with key stakeholders to define what 21st century education should look like in their individual districts, and then seamed together parts of many different frameworks to create their
own unique model. The same was true of the change models they used. Each superintendent took what they believed to be true about the change process and tailored it to the unique needs, demographics, and cultures of their districts.

Superintendents who did specifically reference the Partnership for 21st Century Skills framework reported that they used only parts of it, or used it to validate the work they had already begun. This was a surprising finding because the sample had been taken from a pool of districts identified by the Partnership for 21st Learning. The researcher expected that these district leaders would have a bias toward the P21 framework and Kay and Greenhill’s seven-step process for 21st century education, but no such bias or allegiance was found.

A second unexpected finding was the emergence of Ambrose’s 1987 chart on complex change as a change model “hanging on the office wall” of successful superintendents. This was surprising because it has been overlooked as a significant change model in the review of literature. The assumption is that it is popular with superintendents because of its practical simplicity and theoretical elegance, allowing for a quick diagnosis of what has gone amiss in the change process. That such a simple change model was so well-regarded was quite unexpected.

The third unexpected finding was the emergence of the state legislature and state mandates as major barriers to transformational change. State legislatures impose a great deal of laws and regulations on student accountability, teacher credentialing and evaluation, and other aspects of education. Many of the superintendents in this study found their state legislatures and the constantly changing political landscape as a major constraint on implementing innovative initiatives when what they truly need is flexibility.
Superintendents felt particularly thwarted with respect to implementing truly innovative ideas in their districts. This was unexpected because the study sample encompassed four different states. Only one of these states emerged as having a flexible and supportive state department, yet this fact reinforces the finding itself. The state appears to have a major impact on the ability of superintendents to enact transformational change, either for the positive or the negative.

**Conclusions**

The rapid global and technological changes of the 21st century have implicated the need for profound changes in the American public education system. This reality further highlights the need for transformational leaders capable of envisioning and implementing innovative models of 21st century education. It is clear from the research that district leadership matters when tied to student outcomes for standardized achievement (Leon, 2008; Supovitz, 2006; Marzano & Waters, 2009; DuFour & Marzano, 2011; Cantu, 2013; Clark, 2009; Anderson et. al, 2012). It follows then that district leadership should also matter in cases of district-wide change for 21st century education. Kay and Greenhill (2013) clearly stated the significance of district leadership in their work on leading 21st century education:

> If there is one factor that distinguishes successful 21st century schools and districts it is strong leadership. While individual teachers can adopt the practices of 21st century classroom, the real impact on students is if an entire school and district embraces and works toward the same vision. (p. 26)

This study sought to verify Kay and Greenhill’s (2013) conclusion about leadership by analyzing eight successful cases of 21st century education from the
perspective of the district superintendent by identifying factors of influence, vision, frameworks, major initiatives, specific strategies, and perceptions of change.

**Superintendents as Leaders**

Superintendents are the primary agents in the planning and implementation of second-order organizational changes, which bring about new goals and structures and transform familiar ways of doing things (Ireh & Bailey, 1999; Portis & Garcia, 2007; Marzano & Waters, 2009; Schlechty, 2002). This study did not primarily seek to understand the leadership qualities associated with its participants; however, the personal and leadership qualities of the superintendents in this study quickly became evident in their responses to the interview questions.

The findings revealed that the superintendents in this study are indeed conscious and intentional change leaders of 21st century change. These men and women are leaders with deep personal convictions and beliefs about students and education. They espouse clearly articulated visions, are well-read and immersed in current research. They are intuitive about leading change, hold an unwavering belief in people as learners and leaders, and are wonderful storytellers. Most significantly, however, these leaders are relentlessly student-centered. The essential principle of student-centeredness is best stated by Participant 4 in his closing statement:

*What drives 21st century teaching and learning really needs to be the same thing that drives our hiring practices, our selection of instructional materials and just really how we do business. It really needs to be brought back to what our students need and how we can best serve our students. Those same drivers need to be used for all of our initiatives... the teachers and other employees should see that we’re not just randomly*
doing these initiatives because they’re sexy, or because it will make a splash, or whatever. The same things are driving all of what we do, and then we can integrate those initiatives much more meaningfully too. People should start seeing the interconnectedness of each of these initiatives, even if they seem disconnected at the outset.

Ireh and Bailey (1999) recognized the complex demands placed on school districts in the 21st century by government mandates, interest groups, the community, parents, and students. Knowing that superintendents have to assume a major leadership role in planning and implementing change programs, they concluded that these leaders must not only be prime movers of ideas and facilitators of change, but also those who can create climates which encourage the anticipation of and response to external pressure.

The superintendents in this study definitely embody and support Ireh and Bailey’s (1999) conclusion about change leaders. In case after case, these superintendents demonstrated not only a commitment to their vision and initiatives but also an equal commitment to the culture of their organizations. They talked about building trust, openness and agility. They were wholly unafraid of listening to input; in fact, they went out of their way to find it. Two of the superintendents told stories of going on listening tours to the school sites and hearing it all, both the positive and the negative. They viewed listening as a hard but necessary part of building a culture of trust in the organization.

**Organic Change Process**

This study also sought to understand the superintendents’ perceptions of the change process. This research focus was based on the assumption that choosing a model
is not an arbitrary choice, but rather an ideological one. Kezar (2001) stated, “The assumptions we make about change are also assumptions about the nature of reality and people” (p. 25). In the case of systemic, district-wide educational change, these assumptions and choices are made most often by the superintendent.

Already discussed as an unexpected finding, but also a major finding of this study, is that successful superintendents favored a more organic and customized approach to implementing change for 21st century education. Rather than use prescribed frameworks of 21st century skills, the superintendents in this study used a process by which they gathered input from the community, worked with key stakeholders to define what 21st century education should look like in their individual districts, and then seamed together parts of many different frameworks to create their own unique model. The same was true of the change models they used. Each superintendent took what they believed to be true about the change process and tailored it to the unique needs, demographics, and cultures of their districts.

Participant 5 explained the organic nature of change as follows:

*It depends on the situation and it depends on the individual. I think we’re always thinking about our system, and to have supports in place. So that those having change resistance maybe need to be better educated and better supported to be better understand and implement what we are trying to do. But a lot of times it’s more organic. A big thing is having people involved up front and empowering teachers to have a lot of input into what we’re doing.*

In the literature on change models, there was a great deal of theory on the nature of the change process. After sorting the change literature into typographies of systemic,
constructivist, first and second order, transformational, etc., a divergent and somewhat obscure article appeared in the mix titled *Build your own Change Model* by Schaffer and McCreight (2004). The study found that organizational change efforts based on structured programs failed to bring about the planned change. Instead, the authors proposed a menu for creating a customized change model based on the needs of one’s organization. This article was included in the literature review, and its findings were validated in this study.

**Systems Thinking and Transformational Change**

In spite of the finding of the organic nature of change, there was also a finding that the superintendents in this study leaned heavily towards perceptions of systems thinking change. Furthermore, they all possessed an understanding of their work as transformational change and a perception of themselves as transformational leaders. Participant 5 qualified his response with the humble statement: *I don’t want to sound arrogant, but yes, I understood that what I was doing was transformational.* In their understanding of systems thinking, Senge and Fullan were the favored authors. One superintendent even confessed that she had started reading Fullan’s *Leading in a Culture of Change* again to see if it validated what she had known intuitively to do.

Participant 7, who initially said he didn’t have a change process, proceeded to explain the steps he took to implement the major initiative of standards-based report cards, and then realized that he had articulated his own version of a change model as follows:

*So, when I think about that process and that change process, I think it starts with having a vision, but then you’ve got a get a few risk-takers involved who are willing to*
take that chance, and then you’ve got to, for lack of a better term, brag about it, talk about it, whatever you want to call it, celebrate their successes and get more people on board until you get that critical mass, and then what we do or what I do is once we have that critical mass, if others aren’t jumping on board, we kind of force them to jump on board, by saying, “everybody is going to do it.”

**Community**

Engaging and supporting community involvement is identified in the literature as a key leadership behavior necessary in leading transformational change (Wolf, 2011; Ireh & Bailey, 1999; Schrum & Levin, 2012; Kay & Greenhill, 2013). The superintendents in this study gave more than lip service to the practice of community engagement. On the contrary, the community served as an authentic and key driver of the change. In most cases, the community served as the natural starting point and definer of the process. The superintendents assessed the needs, the culture and the values of the community before proceeding, before even designing or planning. For several superintendents, the board of education was also part of this critical process of community engagement. Community engagement was intentional and purposeful, and always it was to ask the question, “What do you need our students to know and be able to do?” By placing the community at the beginning of the change process, superintendents were able to establish the critical buy-in needed for success. Community engagement was also ongoing, providing the superintendents with a continuous feedback loop.

**Vision**

The clear articulation and communication of a shared district vision was found throughout the literature on change leadership, as both a key strategy (Kay & Greenhill,
2013; Marzano & Waters, 2009; Portis & Garcia, 2007) and as a key element in defining
the role of the superintendent with respect to district reform.

The superintendents in this study did not hesitate when asked to state their visions
for their districts. Indeed they were articulate and passionate when talking about their
visions. For many, this seemed to go to the very heart of who they were. Participant 5
explained his vision as one of his core values, expressing it as: *an unwavering belief in
people as learners, thinkers, leaders and problem solvers*. His unshakable faith in his
people was woven through all of his initiatives and actions, including and especially in
his communications and messaging.

While common threads woven through the visions of the eight superintendents, it
became clear that each vision was a unique expression of each superintendent’s
leadership. What also became clear was that the vision served as the focus of the work
and the non-negotiable component around which the more flexible components could
turn. Their visions drove the hiring selections, the allocation of resources, and the
professional development plans. Later, when they talked about the simultaneous loose-
tight relationships with their principals, they were always careful to articulate that the
tight part was the vision while the implementation could be more flexible, or loose.

Supovitz (2006) found that the central job of leaders of an effective organization
was to develop, communicate, and support a coherent vision of excellent instruction. He
further found that this instructional vision inevitably met with challenges from opposing
viewpoints and therefore required tremendous discipline on the part of the superintendent
to keep focus on the instructional vision. His third key finding was effective district
leaders took the responsibility to build the capacity of teachers and school leaders to enact the district’s instructional vision.

The findings of this study validate Supovitz (2006). The superintendents’ visions reflected their core values and beliefs, yet the visions also clearly incorporated the factors of influence on the superintendent, including the research and reading they had done and their understanding of the needs of their students to succeed in a global society. Nearly everything that was said in other parts of the interviews could be traced back to this nucleus of focus and belief.

**Primacy of Superintendent-Principal Relationship**

The relationship between principals and superintendents was also discussed in the literature surrounding effective district leadership as a key factor in the work of district reform (Schlechty, 2002; Marzano et al., 2009; Suppovitz, 2006; Dufour & Marzano, 2011; Lambert, 2003). Schlechty (2002) maintained that more than any other factor, this critical relationship explains the ability of school districts to ensure that change efforts are sustained and that the positive effects are distributed throughout the system.

The superintendents in this study also maintained that the relationship with their principals was a critical factor in the ability to effectively execute change. Participant 5 said in the interview: *I so believe in the work between the superintendent and his or her principals.* Other words and phrases used to describe this relationship included “super, super critical,” “absolutely critical,” “very intentional,” and “very important and very intentional.”

The superintendents in this study validated the work of Marzano and Waters (2009). Several of them used the verbiage of loose-tight leadership. A simultaneous
loose-tight leadership, or “defined autonomy,” defines the relationship between the
district office leadership and the individual school sight leadership (DuFour & Marzano,
2011). In this structure, the superintendent holds principals responsible for the success of
their schools, but simultaneously provides flexibility with the boundaries established by
the district’s goals. Multiple pathways are allowed and even encouraged, as long as
certain essential elements are in place (Marzano & Waters, 2009).

21st Century Initiatives

An analysis of the major initiatives implemented by the superintendents in this
study found several high-frequency themes. Not surprisingly, these themes are present
throughout the study. These high-frequency themes are: global and cultural literacy,
career and college readiness, standards-based instruction and assessment, personalized
learning, and technology. These themes related not just to the major initiatives but also
to the change drivers that influenced the superintendents and the visions held by them.

These five initiatives taken together seem to capture of essence of 21st century
education. They are not specific skills; rather they are broad concepts that recognize and
define the changing global landscape of the 21st century. All five of these themes are
found in the literature. They reflect Tony Wagner’s groundbreaking work in The Global
Achievement Gap (2008) which several said served as a major influence on them.

The five initiatives, when effectively implemented will ensure that students will
graduate from high school with:

- a global perspective
- an innate respect and appreciation for cultural diversity
- the soft skills for success in the workplace and in college (the 4 Cs)
• expertise on topics of high interest to them

• technological literacy

Superintendents who use these initiatives to develop new accountability structures, innovative ways of teaching and assessing, and new methods of engaging students and the community, will ultimately ensure that all students in their districts will have the skills they need for success in college, career, and citizenship for the 21st century.

Relationship to Other Studies

This study validates the findings of a year-long qualitative case study, in which Schrum and Levin (2012) studied eight award-winning, exemplary schools that showcase leadership for the 21st century and provide examples of strategies and systemic efforts that have led to their success. Information was gathered through observation, interviews, focus groups, and document analysis. The researchers found that the role of mission and vision played an important part on the path to 21st century education, a finding that is well supported in the literature. Findings also included the importance of planning for and supporting technology initiatives, implementing effective models of professional development to support the change, changing curriculum and instruction practices to be more reflective of 21st century classrooms, attending to school culture, funding technology initiatives, and creating partnerships with parents, families, and the community.

Implications for Action

This study serves as a model for educational leaders, policy-makers and communities nationwide. This study verified that strong district leadership matters;
indeed that it sits “at the intersection of state policy and the work of schools” (Supovitz, 2011, p. 11). This section presents the implications for practice and decision-making, based on this study.

**Current Superintendents**

There are, no doubt, many public school superintendents who are considering beginning a 21st century change program in their districts. These are leaders who, like the superintendents in this study, are taking note of the external change drivers, reading the current literature and research on 21st century skills, and seeing the incongruence between their current school designs and instructional practices and the pressing needs of the global marketplace. District leaders may be noticing that the digital natives sitting in their classrooms are not content with traditional ways of learning, and also that they have different expectations about the personalization of learning.

Additionally, current superintendents are functioning under the heavy weight of state and federal mandates to implement standards for college and career readiness, or the common core state standards. They feel the pressure of change resistance as teachers struggle to change practice, and they realized that different models of high quality staff development are called for to fill the gap.

This study presents some guidance for the current and/or future public school superintendents who recognize that profound changes need to occur in their organizations. It offers a starting point, and while it is not an exact road map, it provides road signs to guide the direction of the change.

Superintendents who wish to lead transformational and sustainable change must first know their own core values and personal visions, but before implementing any
initiatives, they must start with the community. They must ask the question, “What do you need our graduates to know and be able to do?” Additional questions they can ask are, “Who are we as a district? What is our unique identity? Where do we want to go as a district?” Boards of education should be intimately involved in these discussions. Superintendents cannot be afraid to ask difficult questions or listen to honest responses. On the contrary, they must go out of their way to listen to divergent ways of thinking. They must recognize that 21st century skills can be defined within the context of the community.

Current and future superintendents should also recognize that both the model of 21st century education and the model of change will be organic and customized to the unique needs of their individual districts. While they may want to use the P21 framework (2009), Wagner (2008), or Kay and Greenhill (2013) as a guide, they should also ensure that the planned change be open and agile rather than structured.

Superintendents should evaluate their planned 21st century initiatives in terms of the four 21st century themes in this study: global and cultural literacy, college and career readiness, personalized learning, and technology. Most importantly, however, they must evaluate their initiatives to ensure that they are first and foremost student-centered.

As superintendents implement their initiatives, the following strategies should guide their implementation:

- Hiring for fit.
- Allocating resources to fit the initiatives.
- Building instructional capacity with structures for collaborative and ongoing professional development.
• Incorporating regular listening sessions as part of the communication plan.
• Recognizing and celebrating success.
• Attending to the culture of trust within the organization.

Superintendents must treat the relationships with their principals as critical. They must build a strong leadership team that can deliver a cohesive message to the learning community. They should utilize the loose-tight principle (Marzano & Waters, 2009), keeping the vision tight, while allowing for flexibility in implementation.

Superintendents must also expect the transformational change process to be hard. They must anticipate resistance and be prepared to persevere, as told by Participant 5 in this study:

That’s why educational change doesn’t always happen. You have to believe in it; that’s the easy part. The hard part is being consistent and being there over time to see through the change. It’s so hard. I get why education doesn’t change. You have to be strong but you also have to be willing to adapt, reflect, and change yourself.

Two-way trust and support is critical, but is also important to note that significant shifts in practice can and will cause stress, discomfort and disharmony in the organization. According to Saibel (2015), education's biggest innovations for the 21st century will result from the answer to this question: How might we move beyond familiar and comfortable practices so that we can explore new approaches to learning alongside our students?

**Boards of Education**

Boards of education have always played an important role in guiding the policies and directions of the school districts they serve. If superintendents sit at the intersection
of state policy and the work of schools, boards of education sit at the intersection of the community and the school district. It is critically important that today’s board members keep themselves from fostering a sense of district complacency. This is particularly true in cases of high-achieving districts where standardized test scores have traditionally been high.

Board members need to consider the findings of this study when interviewing and hiring a new district leader, and also when given the chance to support risk-taking and innovation in their district. As an integral part of the communities they serve, board members must be on the front lines of gathering the community input, assessing needs, and messaging the urgency of change to their constituents.

**Communities**

It is imperative that community members step up to have active voice in setting the direction of the school district. This study shows that in order for a change program to be successful, the community voice must be present at the beginning, and it must be present for feedback during the process. The community must come together to define the needs of its graduates. This implicates business leaders in the community as well. It is no longer permissible to keep the work of business community and the school community in separate silos.

**State Policy-Makers**

This study has vital implications for state policy-makers. Many of the superintendents in this study found their state legislatures and the constantly changing political landscape as a major constraint on implementing innovative initiatives when what they truly need is flexibility. State legislatures impose a great deal of laws and
regulations on student accountability, teacher credentialing and evaluation, and other aspects of education. State policy-makers must consider putting systems and structures in place that allow for flexibility in school districts attempting to implement innovative programs. Moreover, they must celebrate and reward, rather than thwart, attempts to bring education into the 21st century.

**Higher Education Leaders**

Educational administration graduate programs must nurture leaders who are conscious and intentional change leaders and who understand and apply the findings of this study and others like it. They must prepare the transformational leaders of the future to be student-centered, engage their communities, build trust and relationships, formulate and clarify their own visions, and foster organizational resilience and perseverance. Future leaders must understand and act as if district leadership matters, and to be passionate, forward-thinking and committed change leaders for the 21st century.

**Students**

Public school students must actively participate in stakeholder group sessions and give input into the decisions that affect them and their futures. Students must demand a 21st century education and fight systems that are satisfied with educational models for the industrial age. They must allow their expectations and abilities as digital natives to guide the initiatives for technology and personalized learning. Ultimately, it is the future citizens of the global society for whom this study matters most.

**Recommendations for Further Research**

This study was designed to identify and understand the actions and beliefs of successful superintendents who had implemented 21st century models of education. As
such, the scope of this study was limited to superintendents of school districts that had been included on the P21 list of exemplar 21st century schools and districts. Although this was a national sample, only superintendents from four states agreed to participate. Broader investigations must occur to ascertain whether the findings are consistent across all demographics. The following recommendations for future research were identified to extend the understanding of how educational change for the 21st century occurs in public school districts:

1. This study examined the perceptions of superintendents of school districts in the middle America states of Kentucky, Iowa, Illinois, and Wisconsin. The demographics and characteristics of these states may have affected the findings. Therefore it is recommended that study be replicated in different states, particularly in highly populated states such as California, New York, Texas, and Florida.

2. The study investigated 21st century education from the superintendent perspective. It is recommended that future research be conducted on this same topic from the perspectives of site principals and/or teachers.

3. Research indicates that professional development is a critical component of implementing change. During this study, several participants described professional learning communities as an effective structure for professional development leading to 21st century change. It is recommended that future research be conducted to explore and define this and other effective strategies of professional development for teachers in 21st century schools and districts.

4. Research and findings suggest that 21st century education is student-centered
and is meant to prepare students for success in college, career, and the global society. Thus, it is recommended that further research examine short-term and long-term student outcomes in districts that have espoused a 21st century model of education.

5. Literature research and findings from this study speak to qualities of leadership that successful 21st century leaders embody. It is recommended that further research be conducted to study the relationship between transformational leadership qualities and 21st century change, using a mixed-method design.

6. The relationship between the school districts and the states should also be explored. Thus, it is recommended that further research be conducted that examines policies in states perceived to be supportive of innovative practices, to determine if such policies can or should be replicated in other states.

7. This study did not investigate the effect of variables of superintendent tenure or school board stability in relation to the effectiveness of the change leadership over time. It is recommended that further research be conducted to study this critical relationship between the superintendent and the Board of Education.

8. This study also did not investigate the variable of employee bargaining units with respect to the effectiveness of the change leadership of the superintendent. Therefore it is recommended that further case studies analyze how successful superintendents work with their employee unions during the process of transformational change.

Concluding Remarks and Reflections

I first became interested in the topic of 21st century education when I was the site principal of a continuation high school, working every single day with youth who had completely disengaged from the educational process. My students saw the high school
curriculum as completely irrelevant to them. They struggled to learn about British Literature or World History when they didn’t perceive college to be a viable option, and even if they could earn their high school diploma, their greatest hope was to get a job in the unskilled labor market.

At the same time, I saw moments of brilliance and creativity in these students, passionate beliefs, and a desire to make a difference in the world. I knew we had to do better as educational leaders, for them and for all the students in America who are about to enter the 21st century as global citizens. I then engaged my staff in a shared reading of Trilling and Fadel’s *21st Century Skills: Learning for Life in our Times* (2009). We were hooked, and increased student engagement followed.

When I stepped into a district leadership position as a director of curriculum and instruction, the burden of responsibility for ensuring that all students in my district were equipped with 21st century skills weighed heavily on my mind. In 2013, my school district became a member of a consortium for 21st century leaders called *Ed Leader 21*, and I traveled to Chicago for their national conference. I found myself surrounded by educational leaders from across the United States of America, all of them passionate about the change work they were doing for 21st century education. In one of the break-out sessions, I sat at a table with four superintendents who were discussing district-wide change. Like the superintendents who participated in this study, the leaders at my table has deeply-held personal convictions and beliefs about students and education. They were well-read in the current research. They understood system-wide change, but most of all, they were relentlessly student-centered. On the last day of the conference, I went on a tour of a model 21st century school in a nearby suburb of Chicago. The
superintendent of that district joined us on the tour, and I managed to walk and talk briefly with him. By pure coincidence, this brilliant young leader became Participant 5 for this study.

I cannot thank the eight participating superintendents enough for agreeing to interview with me. Each of them willingly sacrificed up to an hour of their invaluable time in a virtual interview room with a graduate researcher they didn’t know before that moment. They held nothing back. They were humble, honest, engaging, transparent, and they seasoned their stories with humor. They provided me with rich, valuable narratives. They were enthusiastic about contributing their stories to the body of educational research. Their stories inspired me and challenged me to do more.

The reality of innovation is that we don't know whether it will work until we commit ourselves to the process of putting theory and ideas into practice. Leaders of innovative organizations don't sit by the side of the road to wait and see if an idea succeeds or fails. They step forward and contribute to the process; they blaze the trail. Such were the superintendents in this study. They took a bold step forward by recognizing that change is hard and often marked by struggle and resistance. Yet, like the superintendents in Portis and Garcia’s study (2007), the superintendents in this study were driven by a moral imperative for change that was both a critical motivating factor and also a source of resiliency for overcoming organizational resistance to change (Portis & Garcia, 2007).

I valued every moment of this qualitative research process. The research literature itself, as presented in the review of literature, was rich and flavored with the anticipation of future possibilities. Key tenets of seminal works by authors such as Tony
Wagner, Michael Fullan, and Ken Kay became known not just by me, but were also referenced repeatedly by the participating superintendents. However, the true pinnacle of the process for me was laying the narratives and findings alongside the research and discovering so many supported themes. I found that Chapter II and Chapter IV wove perfectly together with common threads.

The urgency of continued research on educational change for the 21st century cannot be overstated. Because of the rapidly changing times in which we work and live, research which now seems forward-thinking will be obsolete within five years. Education is already behind the curve of change, as we are a decade and a half into this century and have only begun the implementation of innovative practices within the last few years. By the time the students who are entering school this year as kindergartners graduate from college, they will be well into the 21st century and living in a world that we cannot presently imagine, and they must be prepared for such a future. However, with educational leaders such as these participants doing the work, I believe that there is hope for the future of the students and the education in our country.
REFERENCES


178


(1369845173).


APPENDIX A

PARTNERSHIP FOR 21st CENTURY SKILLS
LOCAL/REGIONAL K-12 EXEMPLAR EVALUATION TOOL

<table>
<thead>
<tr>
<th>School:</th>
<th>Date of Visit:</th>
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</table>

Please evaluate the school’s progress toward achieving each indicator:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>No Evidence</th>
<th>Planning</th>
<th>Initial Implementation</th>
<th>Clearly Evident</th>
<th>Embedded Practice</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Evidence of Commitment to College, Career &amp; Life Readiness</td>
<td></td>
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<tr>
<td>Commitment to support core subject and 21st century skills mastery is evident in strategic planning and/or other visioning documents</td>
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<td></td>
</tr>
<tr>
<td>Partnerships with institutions of higher education have contributed to strategic planning/ visioning</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Partnerships with local/regional agencies and businesses have contributed to strategic planning/ visioning</td>
<td></td>
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<tr>
<td>Implementation of 21st learning for college, career, and citizenship is clearly articulated in strategic planning</td>
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</table>

Sources of Evidence for Commitment to College, Career & Life Readiness:

Key to Rating Categories:

<table>
<thead>
<tr>
<th>SCORES</th>
<th>No Evidence</th>
<th>Planning</th>
<th>Initial Implementation</th>
<th>Clearly Evident</th>
<th>Embedded Practice</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence of indicator is not apparent</td>
<td>School is planning to implement activities related to this indicator</td>
<td>School has begun addressing this indicator but outcomes are not yet evident</td>
<td>School has addressed this indicator and outcomes are becoming evident</td>
<td>Indicator is fully implemented and continuous improvement is evident</td>
<td>Indicator is not applicable to this school or context</td>
<td></td>
</tr>
</tbody>
</table>
2. Education Support Systems & Intentional Design

Data collection and its use plays a role in assessing your ability to implement your learning vision

<table>
<thead>
<tr>
<th>NE</th>
<th>P</th>
<th>II</th>
<th>CE</th>
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<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>College and career standards form the foundation of student learning</td>
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<tr>
<td>NE</td>
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</tr>
<tr>
<td>A college and career aligned curriculum is used to support student learning</td>
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<tr>
<td>NE</td>
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<td>N/A</td>
</tr>
<tr>
<td>Instructional systems support acquisition of content knowledge and P21 skills</td>
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<tr>
<td>NE</td>
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<tr>
<td>Assessment systems support acquisition of knowledge and P21 skills</td>
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<td>NE</td>
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<td>N/A</td>
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<tr>
<td>Learning environments support knowledge and P21 skills acquisition</td>
<td></td>
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</tr>
<tr>
<td>NE</td>
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</table>

Sources of Evidence for Education Support Systems & Intentional Design:
### 3. Engaging Learning Approaches

<table>
<thead>
<tr>
<th>Description</th>
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<th>II</th>
<th>CE</th>
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</thead>
<tbody>
<tr>
<td>Project-based learning approaches are utilized regularly</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>Inquiry-based instruction is utilized regularly</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>Students have access to work-based learning</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>Learning incorporates use of information, media and technology to support individualized learning</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>Professional development is used to build capacity to achieve 21&lt;sup&gt;st&lt;/sup&gt; Century outcomes</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>Professionals and students have access to information, media and technology to support individualized learning</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>Administrators, teachers and staff have expertise to support learning vision</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>The curriculum is multi-disciplinary and integrated</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
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</tbody>
</table>

**Sources of Evidence for Engaging Learning Approaches:**
4. Equitable Student Access to 21st Century Learning

All students have support to matriculate to college and develop career and life readiness.

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<tr>
<th>NE</th>
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</table>

Specialized training in cross-cultural and global awareness is offered for students and staff to promote success of all students.

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</table>

Sources of Evidence for Equitable Student Access to 21st Century Learning:
### 5. Evidence of Student Acquisition of 21st Century Knowledge and Skills

<table>
<thead>
<tr>
<th>Source of Evidence</th>
<th>NE</th>
<th>P</th>
<th>II</th>
<th>CE</th>
<th>EP</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Multiple measures suggest student learning and growth over time</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of student mastery of citizenship skills</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of student expertise in core subjects</td>
<td>NE</td>
<td>P</td>
<td>II</td>
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<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of student expertise in P21 skills</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of student expertise in P21 21st Century Themes</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of student expertise in P21 Learning and Innovation Skills</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of P21 Information, Media and Technology skills</td>
<td>NE</td>
<td>P</td>
<td>II</td>
<td>CE</td>
<td>EP</td>
<td>N/A</td>
</tr>
<tr>
<td>There is evidence of student expertise in P21 Life &amp; Career Skills</td>
<td>NE</td>
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Sources of Evidence for Student Acquisition of 21st Century Knowledge and Skills:
6. Partnerships for Sustainable Success

Parents and Families substantively contribute to sustainable success of partnership

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<thead>
<tr>
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Community partners, including ‘beyond school’ partners contribute to sustainable success of partnership

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Business Community contributes to your sustainable success

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Higher Education partners contribute to your sustainable success

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<tr>
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Civic leaders contribute to your sustainable success

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Student and family service providers contribute to your sustainable success

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Policymakers contribute to your sustainable success

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<th>CE</th>
<th>EP</th>
<th>N/A</th>
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</table>

Sources of Evidence for Partnerships for Sustainable Success:
Site Visit Summary

Strengths Relative to the P21 Framework:

Areas for Improvement Relative to the P21 Framework:

Overall Summary:
APPENDIX B

RESEARCH STUDY INVITATION LETTER

October 1, 2014

Dear Prospective Study Participant:

You are invited to participate in a national research study of K-12 Superintendents. The main investigator of this study is Rebecca Summers, Doctoral Candidate in Brandman University’s Doctor of Education in Organizational Leadership program. You were chosen to participate in this study because you are the superintendent of a public school district that appears on the list of exemplar 21st century schools on the P21 website (www.p21.org). Approximately 34 superintendents will be invited to enroll in this study. Participation should require one hour or less of your time and is entirely voluntary. You may withdraw from the study at any time without consequences.

PURPOSE: The purpose of this study is to identify and describe what superintendents of exemplar 21st century school districts perceive to be the critical strategies and initiatives necessary to successfully implement a district-wide 21st century learning model. The study will further identify the change models used by superintendents in the implementation of district-wide change.

PROCEDURES: If you decide to participate in the study, you will be invited to participate in an online semi-structured interview, conducted by the primary investigator, using the Adobe Connect webinar platform. The interview will be recorded and transcribed. A copy of the interview protocol is included with this letter.

RISKS, INCONVENIENCES, AND DISCOMFORTS: There are no known major risks to your participation in this research study. It may be inconvenient for you to be online for up to one hour. Some interview questions will ask you to describe personal leadership experiences and may cause mild emotional discomfort.

POTENTIAL BENEFITS: There are no major benefits to you for participation, but a potential may be that you will have an opportunity to share your expertise with other present or future K-12 superintendents who may benefit from your knowledge and expertise. The information from this study is intended to inform researchers, policymakers, and educators of best practices for transforming school district culture to achieve a 21st century model of education. The results of this study will be used to develop a common language for leading and implementing district-wide change for the 21st century.

ANONYMITY: Records of information that you provide for the research study and any personal information you provide will not be linked in any way. It will not be possible to
identify you as the person who provided any specific information for the study. You will be assigned a participant number. The recorded interview session will not reference your name in document title or URL. During the recording, the researcher will not refer to you by name. This will also hold true for any school name, school district name, county, or state. Any names used by the participant during the recorded session will be redacted from the transcript. The interviews will be transcribed, reviewed, and maintained only by the primary investigator on a password-protected external server.

You are encouraged to ask any questions, at any time, that will help you understand how this study will be performed and/or how it will affect you. You may contact the principal, Ms. Summers, by phone at (626) 629-0780 or email summ9101@mail.brandman.edu. If you have any further questions or concerns about this study or your rights as a study participant, you may write or call the Office of the Executive Vice Chancellor of Academic Affairs, Brandman University, and 16355 Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641.

Very Respectfully,

[Signature]

Rebecca Summers
Principal Investigator
APPENDIX C

INFORMED CONSENT FORM

RESEARCH STUDY TITLE: The Superintendent as Change Leader: Strategies to Support a District-Wide Implementation of 21st Century Learning Models

BRANDMAN UNIVERSITY
16355 LAGUNA CANYON ROAD
IRVINE, CA 92618

RESPONSIBLE INVESTIGATOR: Rebecca Summers, Doctoral Candidate

TITLE OF CONSENT FORM: Research Participant’s Informed Consent Form

PURPOSE OF THE STUDY: The purpose of this descriptive multisite case study will be to identify and describe what superintendents of exemplar 21st century school districts perceive to be the critical strategies and initiatives necessary to successfully implement a district-wide 21st century learning model. The study will further identify the change models used by superintendents in the implementation of district-wide change.

In participating in this research study, you agree to partake in a recorded semi-structured interview, which will be conducted using the Adobe Connect Webinar platform. The interview will take up to one hour, and will be audio-recorded. During this interview, you will be asked a series of questions designed to allow you to share your experiences as a successful change leader who has implemented a 21st century learning model in your school district.

I understand that:

a) There are no known major risks or discomforts associated with this research. It may be inconvenient to spend up to one hour online. However, the session will be held at the location of your choosing to minimize this inconvenience, as long as there is an internet connected device available. Some interview questions may cause mild emotional discomfort.

b) There are no major benefits to you for participation, but a potential may be that you will have an opportunity to share your expertise with other present or future K-12 superintendents who may benefit from your knowledge and expertise. The information from this study is intended to inform researchers, policymakers, and educators of best practices for transforming school district culture to achieve a 21st century model of education. The results of this study will be used to develop a common language for leading and implementing district-wide change for the 21st century.
c) Money will not be provided for my time and involvement.

d) Any questions I have concerning my participation in this study will be answered by Rebecca Summers, Brandman University Doctoral Candidate. I understand that Ms. Summers may be contacted by phone at (626) 629-0780 or email at summ9101@mail.brandman.edu.

e) I understand that I may refuse to participate or withdraw from this study at any time without any negative consequences. Also, the investigator may stop the study at any time.

f) I understand that the study will be audio-recorded, and the recordings will not be used beyond the scope of this project.

g) I understand that the audio recordings will be used to transcribe the interviews. Once the interviews are transcribed, the audio and electronic interview transcripts will be kept for a minimum of five years by the investigator only on a cloud-based server.

h) I also understand that no information that identifies me will be released without my separate consent and that all identifiable information will be protected to the limits allowed by law. If the study design or the use of the data is to be changed, I will be so informed and my consent re-obtained. I understand that if I have any questions, comments, or concerns about the study or the informed consent process, I may write or call of the Office of the Executive Vice Chancellor of Academic Affairs, Brandman University, and 16355 Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641. I acknowledge that I have received a copy of this form and the Research Participant’s Bill of Rights.

I have read the above and understand it and hereby voluntarily consent to the procedures(s) set forth.

Signature of Participant or Responsible Party  

Date

Signature of Witness (if appropriate)  

Date

Signature of Principal Investigator  

Brandman University IRB September 2014  

Date
APPENDIX D

QUALITATIVE INTERVIEW PROTOCOL

1. How many years have you been the Superintendent in this district?

2. What is the size (in pupil ADA) of your district?

3. Is your district rural, suburban, or urban in nature?

4. Regarding Educational Change for the 21st Century, please describe the factors influencing your decision to begin a change process in your school district.

   Probes: External, Internal, Readings and research

5. Please describe your overall vision for the district.

6. How do you define 21st century learning? Please describe any framework or frameworks you have used to conceptualize 21st century teaching and learning.

   Probes: Communication, Accountability, Measurement

7. Please describe the major initiatives you determined to implement in order to achieve the district vision.

8. What are the major strategies you have used to implement 21st century learning in your district?

   Probes: Human and financial resources, Professional development, Communication

9. What model or models of change did you use to guide your process?

   Probes: Transactional v. Transformational Change/ First order v. second order Change resistance, Systems thinking, Barriers

10. Is there anything else that you would like to add to this interview?
### APPENDIX E

**SYNTHESIS MATRIX**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sources by Subtheme</th>
<th>Effects of combined forces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Profound forces for change in the 21st century are requiring a fundamental shift in education for the 21st century.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Globalization</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>The world is increasingly becoming both interconnecte d and interdepende nt (Friedman, 2006).</td>
<td>Chermack (2011) calls technology “the greatest single category of change drivers that we will cope with over the next millennium” (p. 104).</td>
<td>Converging forces make the “perfect learning storm” (Trilling &amp; Fadel, 2009, p. 21).</td>
</tr>
<tr>
<td>New opportunities to collaboratively and creatively solve challenging problems are created (Harrison, 2013).</td>
<td>“The merger of globalizatio n and IT revolution that coincided with the transition from the twentieth to the twenty-first century is changing everything”</td>
<td>“The 21st century is challenging and reshuffling the very foundations of our society in new, powerful, and often alarming ways” (Friedman, 2006, p. 5).</td>
</tr>
<tr>
<td>The flat world concept (Friedman, 2006): we are connected by global markets, digital</td>
<td>Funding models and economic systems have immense implication s for school districts (Klein, 2013).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ensuring that students are prepared for college and work in the 21st century and that they are competitive in today’s job market is a high priority for school district leaders (Partnership for 21st)</td>
<td>Testing and</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Citation</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Friedman &amp; Mandelbaum</td>
<td>Friedman &amp; Mandelbaum, 2011, p. 56.</td>
<td>Digital natives have different expectations of education which put new demands on our school system (Trilling &amp; Fadel, 2009; Tapscott, 2009). The students of today need to be prepared for the dynamic demands of the economy and the marketplace that await them after graduation. (Friedman &amp; Mandelbaum, 2011).</td>
</tr>
<tr>
<td>2011</td>
<td>Century Skills</td>
<td>Century Skills, 2011.</td>
<td>American society is shifting from an industrially based society to an information-based society, requiring “knowledge work” as the primary mode of work (Drucker, 1974; Schlecty, 1990; Trilling &amp; Fadel, 2009).</td>
</tr>
<tr>
<td>2009</td>
<td>Accountability mandates</td>
<td>Accountability mandates is connected to the political climate (Pappas, 2009; Jaeger, 2012).</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td>change our whole mindset in this country. We're living in a 21st century knowledge economy, but our schools, our homes, and our culture are still based around 20th century expectations” (para 25). Schools must change how they operate in order to keep pace with revolutionary changes in technology, the global marketplace, and significant social, political, and environmental issues. These issues radically affect what students today must be able to know and do (Barnett, 2011; Friedman &amp; Mandelbaum, 2011).</td>
</tr>
</tbody>
</table>

American society is shifting from an industrially based society to an information-based society, requiring “knowledge work” as the primary mode of work (Drucker, 1974; Schlecty, 1990; Trilling & Fadel, 2009).

The convergences of globalization and technology will eventually touch everyone” (Friedman & Mandelbaum, 2011, p. 56).
II. Models for 21st century education have been developed to meet the changing demands of the 21st century workforce.

<table>
<thead>
<tr>
<th>History of educational reform</th>
<th>Partnership for 21st Century Skills</th>
<th>New models of learning</th>
<th>Common Core State Standards</th>
<th>Implementatio challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>The history of testing and accountability mandates is connected to the political climate (Pappas, 2009; Jaeger, 2012). NCLB act of 2001: focus on passing standardized tests based on a core-curriculum that is connected to state standards (Jorgenson &amp; Hoffman, 2003). Emphasis on discrete</td>
<td>Framework for 21st Century Learning (Partnership for 21st Century Skills, 2011) presents a vision for what 21st century learning should be, identifying the gap between the knowledge and skills most students learn in school and the knowledge and skills they need</td>
<td>Project based learning or inquiry based learning: Skills are developed most effectively through meaningful learning projects driven by engaging questions and problems. (Holmes, 2012). Research identifies authentic learning, mental model</td>
<td>Widespread assumption that the implementation of CCSS as the single greatest wake-up call and opportunity for change for many local area school districts (Calkins, Ehrenworth, &amp; Lehman, 2012; Kopp, 2013). Not only do these new standards define the curriculum and skills in detail, but</td>
<td>Growing body of scholarly research identifies global, technological, environment and economic factors as the true catalyst for transformational change in K-12 education for the 21st century (Schlechty, 1990; Trilling &amp; Fadel, 2009; Partnership for 21st Century Skills, 2011);</td>
</tr>
</tbody>
</table>
content is in direct opposition to the world outside the school walls, where the technological capability to provide instant access to information already exists (Pappas, 2009).

in the 21st century workforce. The framework served as a foundational piece for school reform efforts in this area (Trilling & Fadel, 2009).

building, internal motivation, multiple intelligences and social learning as the pathways for genuine learning (Bransford, Brown, & Cocking, 1999).

Research on multiple intelligence revealed that personalized learning can have a positive effect on learning performance and attitudes towards learning (Gardner, 1999).

Internal Motivation comes from well-designed learning projects geared to student interests and they also specify ways to teach the content creatively and innovatively, to produce graduates who are globally competitive (Jaeger, 2012).


The challenge of state-wide and district-wide mandated implementation of CCSS across all grades K-12 is a concrete part of the larger challenge posed by the pedagogical paradigm shift to 21st century learning. These embedded challenges require strong district leadership in a cohesive translational change effort to lead, build, and sustain schools of the 21st century (Schlechty, 1990; Kay & Greenhill, 2013).
patterns, which in turn promote active engagement, deeper understanding and a desire to learn more (Darling-Hammond et al., 2008).

Social learning refers to the understanding that the great problems of our times, such as global warming, curing diseases, and ending poverty, cannot be solved without an education that prepares citizens to help solve global problems (Trilling & Fadel, 2009; Wagner, 2012; “Simply put, instructional change on a large scale is a tough nut for systems leaders to crack” (Supovitz, 2006, p. 10).
<table>
<thead>
<tr>
<th>III. Transformati onal Leadership at the district level is needed to lead the required changes in education for the 21st century.</th>
<th>Types of change</th>
<th>District leadership</th>
<th>Impact of effective district leadership</th>
<th>Leadership behaviors</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reigeluth and Squire (2000) identify four kinds of systemic change used by school districts: Statewide, district wide, school wide and ecological. All are systemic types of change.</td>
<td>Historically, district administration as a category of leaders has had a bad reputation for effective change reform efforts (Supovitz, 2006; Bennett, 1987; Marzano &amp; Waters, 2009; DuFour &amp; Marzano, 2011; Lezotte, 2008; Leon, 2008; Bennett, Finn, &amp; Crib, 1999). “The public school establishment is one of the most stubbornly intransigent forces on Marzano &amp; Waters (2009): Seminal study/meta-analysis investigating the relationship between district-level administrators and positive student outcomes concluding: “when district leaders are carrying out their leadership responsibilities effectively, student achievement is positively affected” (p. 5). Byrd (2001) concluded that Leon (2008) - key findings of district-wide improvement efforts showing six best practices linked to positive student outcomes in district-wide reform efforts: leadership, coherence &amp; alignment, human resources, instructional practices, and balanced autonomy. Marzano &amp; Waters (2009) – five specific leadership behaviors associated with student achievement: collaborative Gap in literature/statement of the problem: Analyses of district leadership initiatives and strategies have been conducted in districts selected according to their high academic achievement (Leon, 2008; Supovitz, 2006; Marzano &amp; Waters, 2009; DuFour &amp; Marzano, 2011; Cantu, 2013; Clark, 2009; Anderson et. al, 2012). Yet few studies have analyzed superintendent leadership strategies and</td>
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</table>
is deep and pervasive, affects the entire organization, is consciously led and intentional, and occurs over time (Eckel, Hill, & Green, 1998).

“Transformation is a radical shift of strategy, structure, systems, processes, or technology, so significant that it requires a shift of culture, behavior, and mindset to implement successfully and sustain over time” (Anderson & Ackerman Anderson, 2010, p. 60).

Kezar & Eckel (2002) identify five core strategies for systemic transformation: the planet. It is full of people and organizations dedicated to protecting established programs and keeping things just the way they are. Administrators talk of reform even as they are circling the wagons to fend off change, or preparing to outflank your innovation” (Bennett, Finn, & Crib, 1999, p. 628).

Many researchers have concluded that they need to look beyond improving education one school at a time (Lambert, leadership strategies had no measurable effect on student achievement but that management techniques did. Potentially flawed study.

Supovitz (2006): “It seems clear that the district must play a central role in developing an instructional vision for schools across the system” (p. 28).

Epstein, Galindo, Sheldon (2011) found district leaders’ direct facilitation contributes to the quality of school programs e goal setting, establishing nonnegotiable goals for achievement and instruction, creating board alignment with and support of district goals, monitoring achievement and instruction goals, and allocated resources to support the goals.

Simultaneous loose-tight leadership (DuFour & Marzano, 2011).

Multiple pathways are allowed and encouraged (Marzano & Waters, 2009).

Anderson, Mascall, Stiegelebauer, Park (2012) initiatives in districts that have successfully implemented the transformational paradigm shift towards a model of 21st century learning.
“A central component of transformation that emerged across these cases is providing vehicles for people to alter their mental models, leading to a different set of meanings and activities consistent with the new realities of the changing institution” (p. 303).

Wolf (2011) identified seven characteristics of transformational change in a large-scale mixed-methods study. He found that organizations must be both agile and consistent. Wolf (2011; Lezotte, 2008, DuFour & Marzano, 2011).

“The district sits at the intersection of state policy and the work of schools” (Supovitz, 2006, p. 11).

A study found that district leaders who differentiate assistance to schools improve school performance overall. DuFour & Marzano (2011) call this “defined autonomy.”

Instructional vision, held at the district level is key (Supovitz, 2006; Cantu, 2013; Clark, 2009).