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A DESCRIPTIVE CASE STUDY OF 21st CENTURY SKILLS IN SCHOOLS: EXPLORING THE CHALLENGES AND OPPORTUNITIES OF ADAPTIVE CHANGE AND INNOVATION FOR EDUCATIONAL LEADERS AND THE SCHOOLS THEY LEAD

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Education

by

Sharon A. Perry

May 2012

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Sharon A. Perry

2012

DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
INTERDISCIPLINARY DOCTORAL PROGRAM FOR EDUCATIONAL LEADERS

Dissertation

Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Education (Ed.D.)

Presented by:

Sharon A. Perry
B.A. English, Duquesne University, 1995
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December 21, 2011

A DESCRIPTIVE CASE STUDY OF 21ST CENTURY SKILLS IN SCHOOLS: EXPLORING THE CHALLENGES AND OPPORTUNITIES OF ADAPTIVE CHANGE AND INNOVATION FOR EDUCATIONAL LEADERS AND THE SCHOOLS THEY LEAD

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ABSTRACT

A DESCRIPTIVE CASE STUDY OF 21st CENTURY SKILLS IN SCHOOLS:

EXPLORING THE CHALLENGES AND OPPORTUNITIES

OF ADAPTIVE CHANGE AND INNOVATION

FOR EDUCATIONAL LEADERS AND THE SCHOOLS THEY LEAD

By

Sharon A. Perry

December 21, 2011

Dissertation supervised by Dr. James E. Henderson

The consensus is clear: our schools and instructional methods are in desperate need of an update (Carnoy, 1998; Daggett, n.d.; Fullan, 2007; Keigel & Patler, 1991; Schwahn & McGarvey, 2011; and Wagner, 2008). In order for students to be globally competitive, school leaders need to identify what students need to know, what they need to be able to do, and what they need to be like to be successful post-graduation, and then change and adapt school practices to meet global needs with an awareness of the 21st century learner. 21st century skills development is necessary in order for students to compete globally (AMA, 2010; ASCD, 2008; Cookson, 2009; Friedman, 2007; Keigel & Patler, 2009; Levine, 2009; Partnership, 2010; Pink, 2006; and Schwahn & McGarvey, 2011).

The purpose of this descriptive case study was to investigate a change process that incorporated the Partnership for 21st Century Skills Framework for 21st Century Learning into curricula. I focused on the leaders' perceptions of the change process that allowed for 21st Century Skills to become embedded into the curricula. I was interested in learning what needed to be changed and how the change occurred.

The theoretical lens through which this case was studied and described is Adaptive Leadership Theory (Heifetz, 1994; Heifetz, R.A., Linsky, M., & Grashow, A., 2009; Glover, J., Jones, G., and Friedman, H., 2002a; Jones, Shannon, & Weigel, 2009), which can be defined as leadership that inspires and creates breakthroughs, accomplishes deep change, and develops the capability of the organization to survive, adapt, and thrive in complex, competitive, and challenging environments. Adaptive leadership recognizes that anyone, anywhere within the organization, can be a leader (Heifetz, 1994). Three overarching themes emerged: 1) Motivation for Change, and subsequent Student Needs, 2) Mission, and 3) Collaboration.

DEDICATION

To my children:

Maddie and Spencer Perry

ACKNOWLEDGMENTS

I am grateful and thankful that I have so many supportive people in my life. You have each enriched my life in ways that have made a lasting impact upon me personally and professionally.

My doctoral committee members Dr. James Henderson, Dr. Peter Miller, and Dr. Charles Schwahn truly deserve the accolades that have so frequently been bestowed upon them. Their level of care, professionalism, and support is unmatched. If it is at all realistic to say that they made this process easy and fun, they did. They challenged me and maintained high expectations for me, for which I am eternally grateful. I would also like to recognize my honorary committee member, Mrs. Darlene Miller. I appreciate her cheerful attitude, her expertise, her attention to detail, as well as her exemplary communication skills. She is an outstanding professional, and deserves to be recognized as such.

I am proud to be an administrator in the State College Area School District, and would like to thank the Board of School Directors for approving and supporting my doctoral leave of absence. I would also like to thank Dr. Robert O'Donnell (Superintendent of Schools), Michael Hardy (Assistant Superintendent), and Jeff Ammerman (Business Administrator) for their unwavering support and interest in my progress. I am profoundly grateful to my Building Administrative Team (BAT): Dr. Craig Butler, Curtis Johnson, Kathy Pechtold, and Larry Walker. You all have graciously shifted responsibilities to accommodate my leave of absence. Thank you, also, for your support and encouragement. I have missed you, and look forward to my return. I would also like to thank the faculty of State College Area High School. The

miracles you create on a daily basis inspire me. From the bottom of my heart, I appreciate the cheerleading of my friend and colleague, Julie Miller (sister of the famed Dr. Brian Miller of IDPEL 2009). Your interest and enthusiasm for my progress has truly motivated me. I am blessed to have you in my life. My friend and colleague, Jason Perrin, deserves my utmost appreciation for his friendship, support, wit, and wisdom, as well as for his unconventional advice for a successful dissertation. Thankfully, I did not listen to it…with the exception of the Starbucks mocha recommendation.

I would also like to thank Dr. Stan Scheer, Superintendent of the Murrieta Valley Unified School District (MVUSD), for forwarding my site request to Mr. Guy Romero, Assistant Superintendent – Education Services, who graciously agreed to participate in this study. I am privileged to have been able to interact with such a passionate educator committed to the "relentless focus on the results that matter for the 21st century student." I would also like to thank Renate Jefferson, Principal of Murrieta Valley High School, and Mary Walters, Principal of Murrieta Mesa High School. I am inspired by the meaningful endeavors you are relentlessly pursuing in order "to Inspire All Students to Think, to Learn, to Achieve, and to Care."

I will fondly remember IDPEL 2009. Your character, integrity, commitment, and passion inspire me. We shared many fun times together, which I will not soon forget.

Finally, I would like to acknowledge and thank my children, Maddie and Spencer Perry, to whom this dissertation is dedicated. You *are* 21st century learners, and I greatly appreciate your input and support along the way. You both are my inspiration and light…and you both are my "favorite child." Just for the record, I love you both…more.

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CHAPTER I

INTRODUCTION

"Never change things by fighting the existing reality…to change something, build a new model that makes the existing model obsolete" – R. Buckminster Fuller

Introduction

It was April 2010 when I was asked by our superintendent at the time to lead an initiative to better meet the needs of our incoming freshmen. In response to that, I asked many questions, the most important being: "What are we NOT doing for kids to provide them with what they need in order to be capable and productive no matter what they choose to do after graduation?" The answer to that question would provide the direction for further conversations with stakeholders. I was hopeful that the response to that question would be that there was nothing more that we could do, that we have been tracking trends, modeling innovation, not afraid to change, and, therefore, adapting and thoroughly meeting the needs of each and every one of our students, and preparing them for their future. Despite the fact that our high school offers more courses and programmatic offerings than many small colleges, I simply knew we were not meeting the needs of each and every student. Therefore, another program may not be the answer. Perhaps, we could infuse or embed something into what already exists.

Prior to my administrative experience at my present district, I was an English teacher at a comprehensive Career and Technical Center (CTC). English was the least favored of subjects for students who learned best using their hands. Knowing this, I brought English to them in their CTC programs. Working collaboratively with the CTC teachers, I infused and embedded English skills, such as reading, speaking, listening,

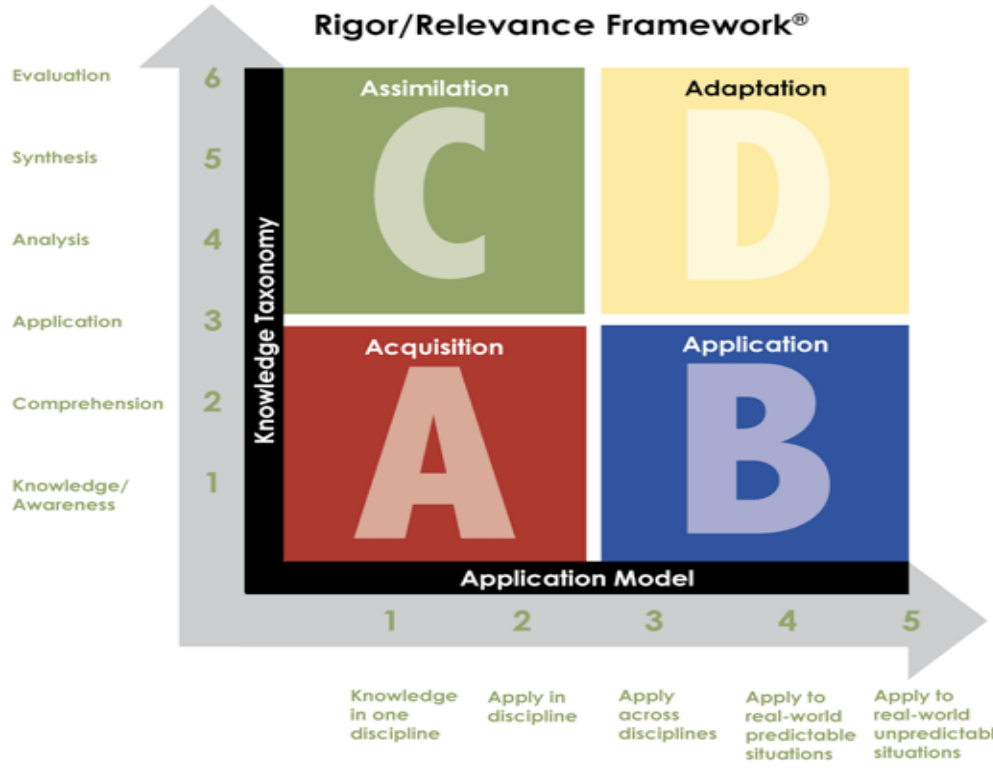
research, and thinking into their CTC learning experiences. As the teacher, it literally forced me to question what students really needed to know, and why. The relevance of what I was teaching was easily recognizable to the students, as they could directly apply and practice this new learning. What really impacted me the most was how the students could extend and strengthen their thinking and learning within a relevant learning experience; that is, one that they would encounter in a real-world setting.

Through this experience, the greatest lesson that my students taught me is that they can and will learn in an environment wherein their teachers care for them as individual students and fellow humans, hold a belief in their students' ability to succeed, while holding them accountable to high expectations, and provide relevant learning experiences to benefit them now and in the future.

As a practitioner-scholar (McClintock, 2003), driven by the desire "to learn about the problems..., to examine these problems carefully, and to look at the productive ways to solving them" (Benham, 1996), I realized that I was utilizing activities to foster learning objectives as suggested by Benjamin Bloom (1956), commonly known as Bloom's Taxonomy; however, I did not realize that I was utilizing a framework designed by William Daggett in the early 1990's called the Rigor/Relevance Framework to which he later added a third 'R'- relationships. The vertical continuum is the Knowledge Taxonomy, a continuum based upon the six levels of Bloom's Taxonomy, which describes the increasingly complex ways in which we think. The bottom of the vertical continuum involves the process of acquiring knowledge and being able to recall or locate that knowledge. The top of the vertical continuum labels the more complex ways in which individuals use knowledge, such as taking several pieces of knowledge and

combining them and applying them in both logical and creative ways. The second continuum, known as the Application Model, is one of action. Its five levels describe putting knowledge to use. While the low end is knowledge acquired for its own sake, the high end signifies use of that knowledge to solve complex real-world problems and to create unique projects, designs, and other works for use in real-world situations.

Figure 1:



A	B	C	D
Students gather and store bits of knowledge and information. Students are primarily expected to remember or understand this knowledge.	Students use acquired knowledge to solve problems, design solutions, and complete work. The highest level of application is to apply knowledge to new and unpredictable situations.	Students extend and refine their acquired knowledge to be able to use that knowledge automatically and routinely to analyze and solve problems and create solutions.	Students have the competence to think in complex ways and to apply their knowledge and skills. Even when confronted with perplexing unknowns, students are able to use extensive knowledge and skill to create solutions and take action that further develops their skills and knowledge.

Retrieved from: http://www.leadered.com/rrr.html

My CTC experience has provided me with the opportunity to understand how a relevant education can positively impact students, now and for their future. My students

were thoughtfully engaged and utilized higher order thinking skills, such as analysis, synthesis, and evaluation. This real world learning allowed for adaptation to occur, wherein the students created solutions for complex problems, utilizing the most current technology available. These students were utilizing 21st century skills, which undoubtedly will serve them well in the future.

I have determined through scholarly pursuits and practice that we, and many other school districts across the country, are not intentionally and consistently providing the learning experiences that can be justified or are relevant now, nor in the future. If we were, we would not be thinking and reading about reform efforts. If we were, we would not be hearing from the workforce and the world that American education, and its product, the students' education and skill set, requires remediation. If we were, it would be very easy for us to answer the students' question: "Why do we need to know this?" It would be very easy for us to say to students that they should not spend time memorizing page after page of information, as we know and understand that students can quickly access that information from their smart phone or computer. If we were providing learning experiences that can be justified and are relevant now and in the future, we would be focusing on the student: what their needs are now and in the future, what their goals are now and in the future, and inspire and teach them to reach them by providing relevant learning experiences.

In setting the direction for the freshmen transition initiative, it was paramount as the leader of this endeavor to ultimately best serve students. What I realized rather quickly was that our structure could not accommodate this easily. Our school structure is designed for a time period other than one we are currently living in. Nevertheless, I

invited teachers to participate in a community conversation about the present state of affairs in education, about what the world was requiring of our students, and what we could do to innovatively solve these problems. As part of this, I shared a few comments from our students with whom I have had previous discipline meetings. During those meetings, I always asked students about their future, how they feel about their classes, how they feel about their teachers, and their overall impression of their experience at school. The following are some of their thoughts regarding their teachers and their school experience:

"The teachers inspire me."

"Teachers force me to think in ways I had not even considered."

"The best teacher is the one who generally cares about you, and your future."

"Two teachers stand out: both of them related what they were teaching to the real world."

"I love the teachers who let me know why this is important. I pay attention."

"There are a lot of people here, but I feel alone."

"Only some people know my name and what I am interested in, but most people do not even ask."

"Teachers seem to only care about their content, not about me."

"More than 90% of what I study here, I will never use again."

"Anything I need to know, I can find online."

"I have no idea what I am doing here…and no idea where I am going."

We spent some time talking about some of the key words that emerged from the student comments, such as inspire, thought-provoking, care for a person and their future,

real world, why something is important, lack of connectedness, boredom, perceived lack of care, relevance, impact of technology, and uncertainty of the future. What these backyard data suggested was that some students are having an overall positive school experience, and some were not. It was determined that what we could do to improve the student experience is to capitalize on what we were already doing well, and become more intentional about consistent care, relevance of learning experiences, and encouraging and supporting the development of the students' vision of their future. Likewise, the conceptual Rigor/Relevance (and relationships) framework provided me, as the leader, an opportunity to engage in meaningful discourse with teachers about the goal, or vision, of increasing students' understanding and knowledge through higher order processes, while simultaneously applying that higher level understanding and knowledge to relevant, real-world complex problems.

In order to visualize how we might accomplish that goal, we then talked about the world, and what the world was requiring of our students in order to be competitive in the world. We talked about the fact that our world and our society have changed, seemingly on a daily basis. Our society is now "global," and our world "flat" (Friedman, 2005; Darling-Hammond, 2010). Connecting to that world requires technology as the predominant tool, which is no longer considered a luxury. We must be mindful, however, that we are not becoming more efficient at being obsolete. In this global community, many American public schools continue to operate as they did during The Industrial Age, circa 1892. Albert Einstein described insanity as doing the same thing over and over, expecting different results each time. Although we educate our students

within an Industrial Age framework, we expect results that prepare students for a vastly different and evolving world.

Max DePree, author of *Leadership is an Art* (1995) referenced Peter Drucker's definition of efficiency and effectiveness. Drucker defined efficiency as "doing the thing right," and effectiveness as "doing the right thing." Similarly, Schwahn and Spady (2010) assert: "The consensus among today's leadership gurus is that leadership is about doing the right thing, and management is about doing things right" (p. 26). As educational leaders, it is incumbent upon us to "do the right thing" for our students as we commit to educating them effectively to participate and compete in our global society.

We talked about the Information Age/Conceptual Age/Digital Age and what might such a learning paradigm look like for 21st century schools? Simply put, as Schwahn and Spady (2011) suggest:

> *Anyone* can learn *anything* from *anywhere* at *anytime* in *anyway* from world-wide experts, customized to *any* individual interests, strengths, needs, learning level and learning style. Here, learning is the constant, and time is the variable. Contrast that to an Industrial Age paradigm wherein *specific students* learn *specific subjects* in *specific classrooms* on a *specific schedule* in a *specific way* from a *specific teacher*, tailored to a *specific timeline*. Here, time is the constant, and learning is the variable.

From our conversation regarding an outdated education system, the global workforce, the 21st century learner, the emergent theme was a need for 21st Century Skills development to be embedded into their learning experiences, which could be introduced as part of a freshmen transition initiative that would focus on and model the development

of skills needed in the global workforce. This could lay the foundation for more growth throughout the students' remaining years of high school. We hypothesized that this then could create the conditions wherein students could and would learn in an environment where their teachers care for them as individual students and fellow humans, hold a belief in their students' ability to succeed, while holding them accountable to high expectations, and providing relevant learning experiences to benefit them now and in the future.

I asked what would be needed from me as a leader to innovate and change for their and their students' benefit. Silence ensued. What ultimately became apparent is that the structure would need to change in order for the vision of relevant and meaningful education to manifest. I, as many other leaders before me, pretended that the elephant was not in the room. We convince ourselves the time it would take to change the structure of our schools would far exceed the time we have to improve what is occurring presently within the classroom walls. It is easier to tweak the structure instead of transforming it. The reality is, however, the time will come when our tweaking days must come to an end.

In the meantime, the teachers suggested that there was a need to innovate systemically, rather than in pockets, and the teachers reminded me that innovation can and does occur at every level of the organization from central office, directors, building leaders, curriculum coordinators, teachers, and students.

I spent about an hour with eleventh grade students in an English class. The purpose of my visit was to discuss the proposed freshman transition initiative, and to determine whether it would have been helpful to them as incoming freshman. Many of these students I knew from discipline consultations two years prior, and felt that I had a

strong enough relationship with them that they would tell me the truth. These were the students who did not connect with an activity or sport, did not see the relevance of school, did not do particularly well in school, and many of them did not have a goal or plan for their future. I asked the students to respond to whether they thought that a freshmen transition initiative that incorporated 21st Century Skills would have been useful to them as ninth graders. There were twenty-one (21) students in the class, five (5) females and sixteen (16) males. The students were broken up into seven (7) groups of three (3). The students are predominantly Caucasian, with the exception of one (1) African-American female, and one (1) African-American male. The following are excerpts from their responses:

> Dear Ms. Perry,
>
> Group #1 (1 female, 2 males):
>
> We feel that we may have an idea for a change that we 11th grade students would like to recommend…9th grade students should have an "End in Mind" or have a goal for the future. We feel this because with a goal or an "end in mind," new high school students then would have something to strive for. Having a goal or career plan would help keep the students on track. It would give them an idea of where they want to go in life and a purpose to be in school, as well.
>
> Group #2 (1 female, 2 males):
>
> Without a goal to follow and to keep on track with, many students would have little interest and reason to be in school and may end up dropping out, leading to a big problem with the future of our country. If more students drop out, then we will have less educated and skilled workers and problems within our country…As

a group, we believe that one major change that needs to be made is that our ninth grade students should be required to create a personal goal and be pushed to stick to it throughout their high school career.

Group #3 (1 female, 2 males):

We feel that freshman should start thinking about what they want to do after high school early in high school. If a freshman was to pick a goal on what they want to do early in high school, they can focus on that. If they were to wait until 10th or 11th grade to start thinking about that, it could be too late. Knowing what you want to do in 9th grade is good because you can take classes to help you reach your goal. If you do not take any classes for what you want to do it might be very hard to reach your goal. We also feel that the teachers should help students achieve their goal. They can do this by asking the freshman: "What do you want to do when you leave high school? Have a job? Go to college?" This will help students develop an idea of what they want to do. The teachers can also help the students search for a specific job and the students can decide if they want to do that job for the future.

Group #4 (3 males):

We believe that it would be a good idea if we had a ninth grade seminar for the ninth graders to be able to better prepare for the future. We think that a lot of times students don't think about the future until their junior or senior years. We also think if the school had this course when we were in ninth grade, it would have made a difference in decision-making and helped to develop goals. For most students, it's hard to make that choice. Only some people know what they want to

do after high school, but that number is pretty low. If we were to have this class, we think it would be a big help. It would also help if we could not have classes the same way that we have them now. Could we spend a half a day on one subject, and the other half a day on another subject? Could we take online classes? Could we graduate earlier?

Group #5 (1 female, 2 males)

As little children, we once had big imaginations about what we would want to be when we grew older. Whether it was an astronaut, teacher, actor/actress, or a clown. You name it, every one has imagined it. Our list was pretty big. The big problem is that when we get older, often we lose our imaginations and our goals and admiration for the future. This course, we think, would help some bring back that imagination for the future and help with bringing back the excitement. After all, we are the future. We have the world at our fingertips. Could we bring the world into our school, or could we go out into that world? What you may not realize is that we are already a part of that world.

Group #6 (3 males):

We have been seeing that eighth graders do not have a clear goal of what they want to do when they start high school. There needs to be classes and opportunities that are designed to prepare us for our future and challenge us to set our standards high and work towards what we want to become. Ninth graders should have two or three electives that will be based on what they would like to do or learn. Ninth graders need a better technique of learning so that when they get to eleventh and twelfth grade, they know where they're going and understand

what they are doing and working towards.

Group #7 (1 female, 2 males):

Some students want to try other classes, but are afraid of failing, or that their peers won't like or accept them. We need classes that will help us learn to effectively communicate with the people around us, and to teach us what we really need to know. Teachers should also be willing to work with us based upon how students learn best, and work on their strengths and talents. It should not be about getting good test scores by memorization because that only teaches us to find an answer. We already know how to find the answer. It should be about learning and understanding what we do so we can use that for our future.

Interestingly, but not surprisingly, these eleventh grade students focused their responses predominantly upon their future, what they need to do well in their career, as well as the relevance of their learning experiences today. The students mentioned that they should have a *personal* goal that is customized to how they learn, nurtured and supported by school personnel, and they want to be held to a high standard. They also recognized the impact that not having skills would have on them personally, as well as on our society. The students also mentioned the impact of technology and recognition of them having the world "at their fingertips." They alluded to alternative educational options utilizing technology and using the world as their classroom.

It seems the students agree they can and will learn in an environment, wherein their teachers care for them as individual students and fellow humans, hold a belief in their students' ability to succeed, while holding them accountable to high expectations, and provide relevant learning experiences to benefit them now and in the future.

Problem Statement

Historically, the United States restructured its education system to meet the demands of the times. In 1893, as the United States was moving from an Agrarian to an Industrial economy, the Committee of Ten conceptualized how American schools should be structured to meet the demands of the time. Consequently, the United States became "the best-educated and most innovative nation in the world. Our accomplishments throughout the 20th century were historic and world-changing, and the United States took tremendous pride in its innovative spirit" (Daggett & Pedinotti, 2005, p. 4).

Seventy years later, the launch of Sputnik allowed for meaningful debate on the inadequacy of American education. The result was a push for more math and science, and the hope that students would be taught how to think, and not simply how to regurgitate information.

Two decades later, the 1983 report of the National Commission on Excellence in Education, *A Nation at Risk*, condemned the present status of American education: "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves." This report offered "a devastating assessment of the educational *status quo* and a set of recommendations to right it" (Seeley, 2009, p. 48). The report asserts that we were condoning "a rising tide of mediocrity that threatens our very future as a nation and as a people."

How can we, as a nation committed to educating each child, continue to stand idly by and not recreate our schools, as well as the student experience to enable our students to equitably compete and participate in the global society as adults? The reasons for this

conundrum are many, and range from an outdated educational structure perceived as being too unwieldy to change, lack of understanding and knowledge of the global workforce and the skills required, lack of understanding and knowledge of the 21st century learner, and lack of adaptive and innovative leadership to effectively create a culture for change.

Purpose of Study

The purpose of this descriptive case study was to investigate a change process that incorporated the Partnership for 21st Century Skills Framework for 21st Century Learning (P21) into curricula. I focused on the leaders' perceptions of the change process that allowed for 21st Century Skills to become embedded into the curricula. I was interested in learning what needed to be changed and how the change occurred.

Theoretical Lens

Cresswell (2003) asserts: "when qualitative researchers use a theoretical lens, they can form interpretations that call for action agendas for reform and change" (p. 195). The theoretical lens through which this case will be studied and described is Adaptive Leadership Theory, as discussed in detail in Chapter 2.

Study Significance

This study is significant as there are no published studies regarding the change and implementation process of incorporating the P21 Framework into curricula, nor are there published studies of the outcomes of the incorporation of the framework. There are also a limited number of published studies of adaptive leadership in the work place, but none in schools. Therefore, this study can add to the body of knowledge regarding adaptive leadership behaviors, and its influence upon a change process. This study would

serve as an initial study of the incorporation of the P21 framework into curricula, as well as the adaptive leadership behaviors, or the lack thereof, in schools.

Research Questions

1) What needed to be changed in the school(s) that led to the incorporation of the P21 framework?
2) How did the change process occur in order to incorporate 21st Century Skills?

Definition of Terms

Adaptive Leadership - leadership that inspires and creates breakthroughs, accomplishes deep change, and develops the organizational capability to survive, adapt, and thrive in complex, competitive, and challenging environments. Anyone, anywhere within the organization, can be a leader (Heifetz, 1994).

Digital Immigrant - a person who was born before the general introduction of digital technology (late 1980s), and through non-interaction with digital technology from their early years have a lesser understanding of its concepts (Prensky, 2001).

Digital Native - a person who was born during or after the general introduction of digital technology (late 1980s), and through interacting with digital technology from their early years has a greater understanding of its concepts (Prensky, 2001).

Four Quadrants of Leadership Model – (See Figure 4)

Leadership in Quadrant A (Authoritative Leadership) applies to traditional leaders, such as the principal, assistant principals, and department chairpersons, acquiring the skills they need and making decisions independently with respect to school improvement and student achievement. Usually, the Quadrant A leader decides and others act. Roles often labeled as "manager" would apply here.

Leadership in Quadrant B (Collaborative Leadership) involves the application of leadership, not just by traditional leaders, but also by staff. Actions are not based on submitting a problem to a higher level of authority and waiting for a decision. All staff, and ultimately students, work in a highly collaborative environment and take action consistent with the school goals.

Leadership in Quadrant C (Creative Leadership) characterizes higher-level thinking in which leaders are more reflective and innovative. They are not guided solely by past experience, but anticipate the future and look for new solutions. School goals are tied to current research on proven strategies and practices. Research and reflective thought guide actions.

Leadership in Quadrant D (Adaptive Leadership) is the combination of the both high levels of application and knowledge. At the highest levels of Quadrant D, students are taking a significant leadership role in the school as well as responsibility for their own learning. Leadership in Quadrant D allows a school to change and adapt more easily through staff collaboration in which everyone shares the same vision and commitment to preparing students for their future. (Jones, Shannon, & Weigel, 2009) retrieved from: http://www.leadered.com/pdf/Quadrant%20D%20Leadership%20White%20Paper.pdf

Practitioner-Scholar – "an ideal of professional excellence grounded in theory and research, informed by experimental knowledge, and motivated by personal values, political commitments, and ethical conduct" (McClintock, 2003).

Rigor/Relevance (and Relationships) Framework – (See Figure 1) – vertical continuum is the Knowledge Taxonomy, a continuum based upon the six levels of Bloom's Taxonomy, which describes the increasingly complex ways in which we think. The bottom of the vertical continuum involves the process of acquiring knowledge and being able to recall or locate that knowledge. The top of the vertical continuum labels the more complex ways in which individuals use knowledge, such as taking several pieces of knowledge and combining them and applying them in both logical and creative ways. The second continuum, known as the Application Model, is one of action. Its five levels describe putting knowledge to use. While the low end is knowledge acquired for its own sake, the high end signifies use of that knowledge to solve complex real-world problems and to create unique projects, designs, and other works for use in real-world situations (see Figure 1).

21st Century Skills – the skills and habits of mind that allow people to actively participate in contemporary society using all forms of media available. It stems from the need to teach how to think and reflect critically on what is happening around them/within them, and to develop interdisciplinary, creative solutions that serve personal and social goals.

CHAPTER II

LITERATURE REVIEW

Introduction

Daniel Pink (2006), author of *A Whole New Mind: Why Right-Brainers Will Rule the Future* notes:

> Today, the defining skills of the previous era – the 'left brain' capabilities that powered the Information Age – are necessary but no longer sufficient. And the capabilities we once disdained or thought frivolous – the 'right brain' qualities of inventiveness, empathy, joyfulness, and meaning – increasingly will determine who flourishes and who flounders. (p. 3)

Gardner (2008) agrees with Pink (2006), regarding the importance of the development of meaning as a person, as well as a worker. Gardner (2008) asserts that "existential intelligence" is needed, in order to "raise and address the largest questions," as it relates to challenges, such as the economy, health care resources, climate, technology, as well as sources of joy, such as the arts, philosophy, and literature (p. xix). With the ever-changing world, and its ever-changing challenges, students must face the future challenges with empathy (Pink, 2006) and an ethical mind (Gardner, 2008).

Knowing this, it is our responsibility to prepare our young people to participate fully and competitively in a rapidly changing global society (ASCD, 2008). "Our nation has embarked on a commitment to educate every child. No nation has ever sought to do that. The societal stakes in improving our schools are high" (Christensen, Horn & Johnson, 2008, p. vi). American public schools, perhaps, do not feel the pressure to remain competitive, as a corporation might feel due to their financial bottom line, or

because of other competing companies, and their products and services. However, it comes down to the ethical responsibility of an educational leader. What is our bottom line? What is getting in the way of leaders who seem unable to adapt their leadership and their organizations to meet the ever-changing requirements of the world through relevant learning experiences for students?

Outdated Educational Structure

Cookson, Jr. (2009) suggests: "Human society has experienced three profound social, economic, and cultural transformations—the agrarian revolution, the Industrial Revolution, and now the electronic revolution. We need to be on the right side of history if we are to survive and thrive" (p. 10). Throughout the two former societal changes, schools reflected society in its structure. Students attend school nine months out of the year to mirror the agrarian revolution in society, students were, and still are, attending classes under a bell schedule in content batches to mirror the requisite skills of the Industrial Revolution. The National Center on Education and the Economy's (NCEE) Executive Summary *Tough Choices or Tough Times* asserts:

> The core problem is that our education and training systems were built for another era, an era in which most workers needed only a rudimentary education. It is not possible to get where we have to go by patching the system. There is not enough money available at any level of our intergovernmental system to fix this problem by spending more on the system we have. We can get where we must go only by changing the system itself. (p. 8)

It seems as if any change is made within the current structure, it will inevitably not be enough to fully prepare students to participate as adults competitively in our global

society. "We are at the threshold of a worldwide revolution in learning. Just as the Berlin Wall fell in 1989, the wall of conventional schooling is collapsing before our eyes" (Cookson, 2009, p. 12).

Since 1983, many school reform conversations and experiments have taken place. Spady (1998) suggests that education's response to change was "educentric," as was the language in the *Nation at Risk* report. As a consequence of not being as innovative as we could have or should have been, we continue to utilize an outdated educational model. Even with the best of intentions, and new efforts of reform, transformation, and attempting to meet the needs of students, schools find themselves only temporarily alleviating problems through a band-aid approach.

Carnoy (1998); Fullan (2007); Schwahn and McGarvey (2011); and Keigel and Patler (1991) suggest our educational system, as it looks now, was originally designed for the Industrial Age, when people had predictable jobs, at predictable times, requiring predictable skills since they were going to be employed in predictable places. Now we know that the high point of this industrial society was the mid-1950s.

> For the past forty years, our economy has been changing into something else-but our educational system has not… The tougher things get, the more people play it safe and rely on the old tried and true. The result is an educational system that is literally bound and gagged by tradition. (Keigel & Patler, 1991, p. 274)

Schwahn and McGarvey (2011) agree: "School systems and educators continue to apply seriously outdated and bureaucratic Industrial Age policies, practices, and structures" (p. 24).

Levine (2009) concurs and adds: Students educated in an Industrial Age era are educated in "batches," bound by the clock. All students go "through a common process tied to the clock; children progress based upon the amount of time they spend being taught in a classroom, with all students required to master the same body of knowledge in the same period of time" (p. 48).

In addition, our present structure supports teachers teaching in silos; that is, teachers are engrossed in their individual content areas, ironically modeling specialization in a time where fluidness of thought and learning new things outside an area of expertise are needed. Due to the structure of the time schedule of the day, very little meaningful time is allotted for collaborative thought, innovation, entrepreneurism, and risk-taking for either the teacher or the student. Daggett (n.d.) concurs: "our schools remain deeply entrenched in teaching discrete subjects, while the real world requires the ability to apply interdisciplinary knowledge. Students need to be taught how to access, evaluate, and synthesize information. Yet, schools typically have no structure that allows teachers to do interdisciplinary planning" (p. 3).

Global Workforce

Because we have not radically changed the structure within which we educate and provide learning experiences for American youth, we are faced with the very real possibility that America's students will continue to lag behind other countries in this global economy (NCEE, 2007; Daggett & Pedinotti, 2005; Schwahn & Spady, 1998; and Zinser, 2003). The National Center on Education and the Economy's (NCEE) Executive Summary *Tough Choices or Tough Times* (2007) warns that the stakes are so high that our future workers' standard of living "will steadily fall relative to those nations, rich and

poor, that are doing a better job…the clear and present danger is that it will fall for most Americans" (p. 8).

The NCEE Executive Summary suggests that due to digital automation and outsourcing, a machine now accomplishes what a human being once accomplished: "If someone can figure out an algorithm for a routine job, chances are that it is economical to automate it" (p. 5). For work that cannot be done by a machine, highly educated people willing to perform the work for less money than an American worker are now doing it. (Daggett & Pedinotti, 2005). "Today, Indian engineers make $7,500 a year against $45,000 for an American engineer with the same qualifications…why would the world's employers pay us more than they have to pay the Indians to do their work?" (p. 5). The challenge for educational leaders is to create the conditions for learning so that America's students can become indispensible in the global economy. That is a challenging feat, indeed, as they are being educated within a dispensable educational model.

The National Center on Education and the Economy's (NCEE) Executive Summary *Tough Choices or Tough Times* (2007) states: "The best employers the world over will be looking for the most competent, most creative, and the most innovative people on the face of the earth and will be willing to pay them top dollar for their services" (p. 7).

Currently, in this regard, there is a discrepancy in these skills noted in the workforce by managers and executives. The American Management Association (AMA) and the Partnership for 21st Century Skills (P21) conducted a Critical Skills survey in 2010 of businesses inquiring about the 21st Century skill level of their workers. "AMA's survey shows that an overwhelming number of respondents believe that these 21st

century skills are important to their organizations today and will become even more important in the future," said Edward T. Reilly, AMA president and CEO. Three out of four (75.7%) executives who responded to the AMA survey said that they believe these skills and competencies will become more important to their organizations in the next three to five years, particularly as the economy improves and organizations look to grow and innovate. "Many executives feel that their current workforce is not as well developed in these areas as they need to be." According to the AMA survey results, eighty percent (80%) of executives believe that fusing the three Rs (reading, writing, and arithmetic) and four Cs (communication, collaboration, critical thinking, and creativity) would ensure that students are better prepared to enter the workforce.

The 21st Century Learner

We must recognize that today's students already connect and participate in the world through social networking and other technological opportunities. In a study of 2,000 students, ranging in age from 8-18, it was found that students are connected six hours per day, often simultaneously, to multiple digital communication devices (Tapscott, 2009). In my experience with working with the 21st century learner, I have observed this phenomenon, as well as the fact that collaborating and creating seem to come naturally for them. They have a desire to be connected with each other to solve whatever problem they are focused on. Technology is the tool through which this is enabled.

Today's students are known as "digital natives" (Prensky, 2001; Oblinger, 2003). Medina (2008) calls the current students the "net generation," as a reference to the fact that the internet was in existence when they were born. Howe and Strauss (2000) are generational theorists who have identified this generation as "millenials," as a tribute to

the first cohort of this generation who graduated from high school in the year 2000. 21st century learners are already consumers of information; therefore, many of them find our schools irrelevant, and perhaps, boring with our 20th century practice of disseminating information, and then following that up with lower level recall examinations, which, ultimately, only test the ability to memorize. An education based on the ability to remember and regurgitate information is an education that is outdated long before their career in our global society.

One of the foundational reasons for a student's perception of school as being boring is that they need to "power down" when they enter school as they are unable to tap into the technologies that are available to them outside of school (Taranto & Abbondanza, 2009). Another foundational reason is a lack of student's intrinsic motivation (Schwahn & McGarvey, 2011), occurring "when the work itself stimulates and compels an individual to stay with the task because the task by itself is inherently fun and enjoyable" (Christensen, Horn & Johnson, p. 7). To create a school culture that is more intrinsically motivating occurs when customized education is geared toward specific learning styles (Christensen, Horn & Johnson, 2008; Gardner, 2011; and Schwahn & McGarvey, 2011).

One of the ironies of today's schools is that its students are choking on the amount of information that has to be digested. In order to sift through the vast amounts of information with which they interact, they have adapted a superficial skimming process. Small and Vorgan (2008) have determined that the average person spends two seconds on each website when searching for information. What is now required is critical analysis of that information. Daggett (n.d.) suggests:

> Students must be taught how to *apply* their knowledge to solve real-world problems. The best way to do this is by appealing to a student's interests, learning style, and aptitudes. Unfortunately, most American schools are not organized for application or contextualized instruction, even though we know that when we teach students how to apply knowledge, they retain it and perform well on tests. (p. 3)

When we do this, students find relevance in their work.

Contrary to the standardized 20th century model of teaching and learning, we have come to recognize and know that students learn in different ways and on different days, yet through our current, outdated structure, we continue to allow "time (to be) the constant, and learning the variable" (Schwahn & Spady, 2011).

> It would make more sense, therefore, to have an education system that focuses on what students *learn*, rather than what they are taught, and sets common standards for what they must learn, rather than common amounts of time for them to learn those things. (Levine, 2009, p. 48)

In this case, "learning would be the constant, and time the variable" (Schwahn & Spady, 2011).

One example of a shift that has gained momentum over the past decade is online learning. The number of students registering for online classes has grown exponentially (Adkins, 2009; Picciano & Seaman, 2009; and Watson, Gemin, Ryan, & Wicks, 2009), and is predicted to increase steadily (Christensen, Horn, & Johnson, 2008; and Adkins, 2009). Zucker (2008) suggests: "the nature of technology used in schools has changed

dramatically in the past decade…schools are beginning to transform themselves into the more modern, effective, responsive institutions that our society needs" (p. ix).

In a culture where the information that is relevant today is obsolete tomorrow, students need to learn *how* to learn, not what to learn. They need to be taught *how* to think, not what to think. Learning how to learn and learning how to embrace change are the critical skills that will enable an individual to thrive in any situation. Friedman (2007), author of *The World is Flat: A Brief History of the Twenty-First Century (Release 3.0)*, acknowledged that there is no magic formula to prevent students, our future workers, from encountering both the challenges and opportunities of their future, yet he asked a poignant and relevant question: "What is the right kind of education to prepare our young people for jobs?" As Princeton economist Alan Blinder (2007) notes,

> It is clear that the U.S. and other rich nations will have to transform their educational systems so as to produce workers for the jobs that will actually exist in their societies…Simply providing *more* education is probably a good thing on balance, especially if a more educated labor force is a more flexible labor force that can cope more readily with non-routine tasks and occupational change. But it is far from a panacea…In the future, *how* we educate our children may prove to be more important than *how much* we educate them. (p. 309)

Another manifested problem is the disparity between the skills, attributes, and behaviors the global society requires, also known as 21st Century Skills, and that which is assessed through our accountability measures, as required by the No Child Left Behind (NCLB) Act of 2001 and the standards-based reform movement (Daggett & Pedinotti, 2005). NCLB supports standards-based education reform, which rests upon the belief

that setting high standards and establishing measurable goals can improve individual outcomes in education. NCLB requires states to develop assessments in basic skills to be given to all students in certain grades, in order for the states to receive federal funding for schools. Although basic skills are necessary to be competitive in our flat world, one cannot be competitive and remain competitive with only basic skills in hand. Our students need to possess many other skills, attributes, and behaviors, which are often abstract, difficult to define, and consequently, are perceived to be difficult to measure. Regardless, the flat world is calling us to change and focus on developing all sorts of skills, attributes, and behaviors for our students. The change must first come from us, the leaders.

In response to this knowledge, the Association of Supervision and Curriculum Development (ASCD) published a Position Statement in 2008:

> As educators in the 21st century, we are charged with educating students to be successful in a complex, interconnected world. This responsibility requires schools to prepare students for technological, cultural, economic, informational, and demographic changes.
>
> ASCD supports changes in teaching, learning, and leadership that adequately prepare students for the 21st century who:
>
> 1) Acquire and apply core knowledge and critical-thinking skill sets that are essential in an information age, 2) Demonstrate creativity, innovation, and flexibility when partnering with business and community members to advance common goals, 3) Make decisions and solve problems ethically and

> collaboratively, 4) Use technology to gather, analyze, and synthesize information for application in a global economy, 5) Exhibit positive interpersonal relationships that value multiple languages, cultures, and all persons, and 6) Display leadership skills that inspire others to achieve, serve, and work together. (ASCD, 2008)

Similarly, Gardner (2008) proposes that students today must develop and possess five "minds." "If we are to thrive now and in the future, these are the minds that need to be developed" (Gardner, 2008, p. 1). The disciplined mind is one that specializes, yet maintains a flexibility that enables students to be flexible and mindful enough to anticipate and adapt to challenges. Gardner (2008) suggests "much research confirms that it takes up to ten years to master a discipline" (p. 3). Building upon the disciplined mind, the synthesizing mind "takes information from disparate sources, understands and evaluates that information objectively, and puts it together in ways that make sense to the synthesizer, and also to other persons" (p. 3). With the knowledge of a discipline and with the ability to synthesize, the creating mind is permitted to manifest answers to complex questions. In this sense, we look to leaders for examples of creativity (p. 7). Given the flat world, and all of its global implications, students must develop a respectful mind. This mind cherishes diversity, and seeks to understand various perspectives. Pink (2006) calls this empathy. Gardner (2008) critiques Pink indicating that Pink does not address "how we behave towards others (respect), and how we carry out our roles as workers and citizens (ethical)" (p. xxi). Students must also develop an ethical mind to address this. Gardner (2008) states: "Too many of them (students) lack a concern with the ethical implications of what they are doing and not doing" (p. xxi). To develop these

minds, one must actively seek to learn. In order to be prepared for the future, educational leaders must recognize and embrace the fact that "the future belongs to those organizations, as well as those individuals, that have made an active, lifelong commitment to continue to learn" (Gardner, 2008, p. xviii).

Wagner (2008) illustrated how what students are learning prepares them for the past, and not the present or future. 21st Century Skills development may be our answer to the challenges and opportunities that our young people face, and that we presently face as educational leaders.

It can be overwhelming to come to realize that the world has seemingly changed without our even being aware of it. Because of that, we can now recognize that "it is the world we live in daily, a world of uncertainty, sudden shifts, and webs of relationships extending around the world" (Wheatley, 1999, p.ix). Additionally, "chaos and global interconnectedness are part of our daily lives…No matter what we do, stability and lasting solutions elude us. It's time to realize that we will never cope with this new world using our old maps" (Wheatley, 1999, p. x). In order to create new maps, we must take a deeper look at the things that could influence a new educational landscape: Leadership, Change, and Organizational Cultural Influence, Adaptive Leadership, and 21st Century Skills Development.

Leadership, Change, and Cultural Influence

Principals have been shown to have profound change on student achievement (Leithwood, et. al., 2004; Marzano, Waters & McNulty, 2005; and Anthes, 2005).

Highly effective principals are often viewed as "the key to initiating, implementing and sustaining school success" (Tucker & Codding, 2002, p. 253).

Despite this, leadership is challenging, even for the strongest and brightest, particularly in the era of lightening speed of change. "Those who will lead us into tomorrow can't be playing it safe or resting on their laurels but must be bold and daring and have fire in their hearts, constantly looking outside to the horizon, seeing beyond the present" (Keigel & Patler, 1991, p. 273). Similarly, Schwahn and Spady (2010) define leadership as "future-focused, heartfelt influence" (p. 145).

Undoubtedly, our world has changed and is changing. Friedman (2005) told us so. The world that our present day students live in will be very different than the world that they grew up in. Schools should be most affected by his message, as it is our responsibility to teach our future leaders how to overcome the challenges of the future. Sadly, we appear "to be the slowest to react to the realities of the new 'flat' world" (Carter, 2010, p. 35). We need an educational system led by people who have the courage to challenge tradition, who are not bound by the old ways and limited by conventional thinking. "We need individuals with vision, passion, and daring, who are willing to take risks, break old rules, and innovate. And we need to teach our students to be doing the same thing" (Keigel & Patler, 1991, p. 274-275).

We must keep changing, improving, and renewing our "enterprising spirit" to remain competitive (DePree, 2004).

> Conventional wisdom tells us we must respond quickly to change. But the leaders of the future must be creators, not responders. Break-It thinkers know the future isn't found; it is invented. It is shaped by people with vision, courage, and

> wisdom to think beyond the boundaries of the known. (Keigel & Patler, 1991, p. 273)

Creative thinkers will be our future's leaders, due to their ability to think divergently, thus resulting in creative and innovative solutions (Pink, 2006).

Wren (1995) asserts "'leadership' is often confused with 'management' to the detriment of both" (p. ix). What was considered leadership in the 20th century, is actually management in the 21st century. Fullan (2001) suggests that "the more complex society gets, the more sophisticated leadership must become. Complexity means change, but specifically it means rapidly occurring, unpredictable, nonlinear change" (p. v). The world seems to change much more quickly than many of us realize. This is the school leader's dilemma…and opportunity. "Leaders who stick with conventional formulas will not only miss great opportunities but find their organizations struggling in the backwash" (Keigel & Patler, 1991, p. xvii). What schools need to realize, however, is that "no industry will escape, no one is exempt" (Keigel & Patler, 1991, p. 2).

Change does not occur just outside of the schoolhouse door. There is beginning to be a shift by educators whom "recognize that changes should occur, but the reality of creating change can be overwhelming" (Carter, 2010, p. 35). Perhaps the best advice for schools today is:

> If you want to get a real jump on the competition, you can't simply keep playing the same old way, utilizing the same strategies and assumptions that have guided you in the past. To gain a real advantage, you have to challenge old ways of thinking and the basic assumptions about how the game is played. You need to break out of your fixed mind-set…None of us can afford to subscribe to the idea

> that 'the way it's always been done' should simply be perpetuated. We must break away from the accepted, the taken-for-granted, the never-questioned, and the conventional. These days we have no choice. (Keigel & Patler, 1991, p. 101-102)

Collins (2001), author of *Good to Great* states: "Great schools are not a matter of circumstance. They are a matter of will." In Wren (1995), Gardner (1990) states: "Individuals in all segments and at all levels must be prepared to exercise leaderlike initiative and responsibility, using their local knowledge to solve problems at their level" (p. 6). In schools, this would mean that teachers, independent of their leaders, would assume responsibility and take the initiative to model and create learning experiences for students that mirror the qualities, attributes, skills, and behaviors the global society is requiring in the global workforce. DePree (2004) calls this kind of leader a "roving leader."

Additionally, in Wren (1995), Gardner (1990) states:

> The larger topic of which leadership is a subtopic is the *accomplishment of a group purpose*, which is furthered not only by effective leaders but also by innovators, entrepreneurs and thinkers; by the availability of resources; by questions of morale and social cohesion…motivation, values, social cohesion, and renewal are the 'issues behind the issues.' (p. 4-5)

Moffett (2000) adds and suggests the following can impact the change process in schools: interest in change, leadership support, professional development, a plan for implementation, and reflection throughout the implementation. Additionally, Giles and Hargreaves (2006) suggest students are the recipients of positive change when everyone

within the organization shares a clear vision and mission. Professional learning communities, which keep faculty engaged in the growth process, have also been found to support a positive change process.

Schwahn and Spady's (2010) revised Total Leader performance domains describe leadership attributes that situate seamlessly with what they call "pillars of change," or the actions of leaders (see Figure 2). Authentic leaders "define purpose," Visionary leaders "frame vision," and Quality leaders "build capacity." These three performance domains and pillars of change are "about identifying what the job is, describing what successful implementation should look like, and putting in place the personal skills and technical resources to get it done" (p. 57). Additionally, Service leaders "ensure support," Authentic Leaders "define purpose," and Relational leaders "develop ownership." These three performance domains and pillars of change are about "what empowerment is all about - mobilizing, supporting, and positively utilizing people to get the job done." The vertical continuum focuses on "achievement goals," while the horizontal continuum focuses on "role engagement" (p. 57).

Figure 2:

Although leaders often engage in multiple roles, it is the educational leader's responsibility to adapt to ever-changing intrinsic and extrinsic demands. For example, intrinsic demands could present themselves as the need for innovation, improvement, necessary support, and resource allocation. Extrinsic demands could present themselves from the global, federal, state, and local levels.

A useful conceptual framework through which change can be investigated is the International Center for Leadership in Education's Framework for Leadership and Change (Daggett & Jones, 2008). This framework is based upon the following assumptions:

1) Change must be revolutionary in spirit and evolutionary in time frame.
2) Each school community is unique and has its own "DNA;" what works in one does not necessarily translate to another.
3) Schools are unique systems that tend to maintain the status quo and often produce unintended consequences in response to change.
4) Schools as systems produce the results they are designed to produce. If different results are desired, the focus must be on changing the system, not simply demanding the system work better.
5) School change can occur when guided by leadership, driven by data, and supported through continuous professional learning. (p. 1)

The Leadership and Change Framework (Daggett & Jones, 2008) illuminates the need to answer the questions: Why?, What?, Where?, and How?

These questions are interconnected; however, the questions should be addressed in the following sequence, according to the authors: 1)Why? - this question determines

the need for change, 2) What? – "builds a common focus on what to change," 3) Where? – this question sets the direction, and 4) How? – this question addresses the "implementation of change," as well as rallying the resources (both human and financial) to accommodate implementation. (p. 1)

The foundation of this change model is reflected in the following objectives: 1) aspire for rigor, relevance, and relationships, (2) begin with the end in mind, and (3) consider schools a biological system.

Figure 3:

Retrieved from:

http://www.leadered.com/pdf/Quadrant%20D%20Leadership%20White%20Paper.pdf.

In order to enable leaders to answer those questions, it is important to know what a model for change looks like. Fullan (2009) suggests a three-phase model for change:

1) Initiation phase, 2) Implementation phase, and 3) Institutionalization phase. Within those phases, Salerno and Brock (2008) suggest there are six predictable and sequential stages of a change cycle: 1) Loss – resistance, and lack of readiness for change, 2) Doubt – skepticism and questioning arise, 3) Discomfort – not sure of the direction and what it means, 4) Discovery – the beginnings of excitement and hope, 5) Understanding – begin implementation with support, and 6) Integration – when the change is fully integrated.

In Taylor and Fratto's (2012) book, *Transforming Learning through 21st Century Skills: The Who Took My Chalk? Model for Engaging You and Your Students*, a change model is presented, a thorough description of each step, and reflections are present to guide individual teachers in considering what 21st century learning opportunities could be like. Taylor and Fratto (2012) suggest "for change to be effective and sustained, it must first be accepted" (p. 30). The *Who Took My Chalk?* Model is suggested to be used by teachers to create a shift towards 21st century learning environments: 1) Recognize the need or desire to change, 2) Assess your school culture and your personal attitude, 3) Set and achieve 21st century goals, 4) Communicate clearly, 5) Predict possible roadblocks, 6) Engage support, 7) Make it real in your classroom, and 8) Create and finalize your plan for success (p. 31). The guidance in this book allows for teachers to engage in personal reflection, develop a plan, and implement a plan to better meet the needs of their 21st century learners.

No organization exists without it's own unique culture, which becomes even more apparent during a change process. Schwahn and Spady (2010) define culture as "the way we do things around here…when no one is looking…it's about attitudes, expectations, assumptions, beliefs, and behaviors that define and shape everything about an organization's (or an individual's…or its leader's) character" (p. 75). The culture possesses an enormous amount of leverage that can either work for or against the achievement of organizational goals. Thomas and Brown (2011) suggest a new culture of learning must emerge for an organization to embrace change: one that "responds to its surroundings organically…forming a symbiotic relationship…and grows along with it" (p. 37). In order to catapult this process, a leader must plant the seed for change, and

allow time and space for it to grow organically. Similarly, Iyer and Davenport (2008) outlined Google's business strategy: practice strategic patience, rule your own ecosystem, exercise architectural control, build innovation into organizational design, support inspiration with data, and create a culture "built to build." Fullan, Cuttress, and Kilcher (2005) assert that this is capacity building, which is needed for sustained change. What often gets in the way of strategic thought and action, leadership, innovation, and a culture committed to the present and futures, and not the past, are the "Sacred Cows" of the organization.

> Sacred Cows are those systems, strategies, policies, procedures, and routines that have become 'standard operating procedure' in many areas of business. They are sacred because we take it for granted that 'that's the way it's always been done.' The result is that we spend a great deal of time, energy, and money feeding our sacred cows, supporting the system rather than having the system support us. (Keigel & Patler, 1991, p. 113)

Additionally, "a deep reservoir of outmoded attitudes and policies" continue to exist, asserts a Massachusetts Institute of Technology (MIT) study:

> Often the most pervasive and most subtle sacred cows are those that are inherent in the corporate culture itself—the shared beliefs, assumptions, and values of the corporation. The culture is the modus operandi, the guiding principles of the organization, the way it operates. To keep ahead of change these days it is imperative to have a corporate culture that is entrepreneurial in nature: fast-moving, innovative, and risk-taking. (Keigel & Patler, 1991, p. 115-116)

The adaptive leader recognizes this reality. Adaptive leadership creates the conditions wherein what is essential is distinguished from what is expendable and innovate in ways with others that synthesize those essentials, while simultaneously identifying and solving complex problems. The goal for leaders, therefore, is to develop an adaptability that enables the organization to survive, adapt, and thrive through honoring the best from its history, and taking that into the future to create new realities (Heifetz, 1994).

The concept of adaptive leadership has gained some popularity over the past decade. It is based upon the viewpoint that an organization is a complex adaptive system that adapts and changes as it continues to evolve. This theory is rooted in evolutionary biology, situated upon the following adaptive considerations: 1) The ability to thrive, 2) the ability to determine what is useful and what is expendable, 3) adaptation occurs through experimentation, 4) adaptation requires diversity, 5) adaptations displace, re-regulate, and rearrange, and 6) adaptation takes time (Heifetz, Linsky, & Grashow, 2009).

Glover, Jones, and Friedman (2002a) and De Geus (1999), have applied Piaget's (1971) concepts of assimilation and accommodation to leading and learning in complex environments, and assert that these two processes are assimilated and accommodated when situated within adaptive leadership thinking. Assimilation occurs when a learner possesses a foundation for learning; that is, prior knowledge. New concepts can be assimilated into the person's overall understanding of the subject matter or complex problem at hand. Accomodation occurs when the learner has an internal "change in the structure of his or her beliefs, ideas, and attitudes" (p. 23). When this occurs, true

innovation can show itself through the adaptive behaviors of others in the organization.

Glover, Jones, and Friedman (2002b) discuss their adaptive leadership theory:

> Although our theory acknowledges the importance of the leader-follower relationship, in addition we focus on leaders' relationship with the contextual environment. Contextual environments within which leaders and their organizations operate are considered in synchronic and diachronic perspectives. It also focuses attention on and speaks to the process by which leaders change or do not change in response to interactions with their environment. Within the perspective of our adaptive leadership theory, leaders make decisions and act with a conscious understanding of how their behaviors are broadly relevant to time and space, not just for one organizational setting within a singular moment of time. Prevalent leadership models in the popular management literature seldom address these synchronic and diachronic dynamics of human adaptation in their explanations, which we see believe is a fundamental shortcoming of these approaches. (p. 19)

Adaptive leadership theory posits that there are two kinds of problems that are confused with one another when attempting to generate solutions: 1) technical problems where an adequate response has been developed, there are one or more experts with credibility, and an established procedure will suffice. The problem is more mechanical and someone can "fix" it, and 2) adaptive problems where there are no set guidelines, procedures, no recognized experts, and no adequate responses have been developed. The latter problems require us to learn in new ways, and adapt accordingly (Heifetz, 1994). Often, the complex challenges an organization faces can be managed more efficiently and

effectively if the organization spends some significant time in the "diagnosis phase" of a challenge, instead of responding too abruptly to the "action phase" (Heifetz, Linsky, & Grashow, 2009). Although it seems counterintuitive, due to the fact that leaders respond quickly to challenges, spending adequate time in the diagnosis phase can actually produce the outcomes we desire more effectively. In order to move through the phases skillfully, the following are considered important for practicing adaptive leadership: 1) cultural competency, 2) managing knowledge, 3) creating synergy, and 4) adaptive vision.

Additionally, Jones, Shannon, and Weigel (2009) of the International Center for Leadership in Education have applied adaptive leadership principles to schools, referred by them as Quadrant D Leadership, which broadens and deepens the definition of leadership we have come to understand to include the many staff and students as leaders who share a common vision. Quadrant D Leadership is the collaborative responsibility for taking action to reach future-oriented goals while meeting the intellectual, emotional, and physical needs of each student during the process of change. Quadrant D leaders are:

- Flexible to adapt to the school environment
- Able to analyze the leadership characteristics of their school
- Knowledgeable about where a school community is and where it needs to move to
- Able to develop a vision about the future needs of students and deliver a coherent message so stakeholders can talk the same language about leadership in the school

- Able to work with people in a manner that ignites their passions, talents, and desire to attain that shared vision. (Jones, Shannon, & Weigel, 2009, p. 1)

In order to assist leaders, Jones, Shannon, and Weigel (2009) suggest that "mental models" provide the impetus upon which appropriate reflective thought, conversations, problem solving, and decision-making can occur. The International Center for Leadership in Education's Quadrant D mental model (See Figure 2) provides a context through which leaders can act. Like the International Center for Leadership in Education's Rigor/Relevance Framework (See Figure 1), the Quadrant D leadership framework is divided into four quadrants and depicts the knowledge continuum vertically and the application continuum horizontally.

Knowledge involves raising the level of awareness and thinking about what is truly important in a school. At a low level of knowledge, leaders are mangers. Jones, Shannon, and Weigel (2009) assert:

> Moving to higher-level of thinking causes leaders to imagine and anticipate the future. *What skills will students need for their future? What are we missing in current programs and services that will help students?* These are the types of reflective questions that leaders ask at high levels of the knowledge continuum in order to create a vision for rigorous and relevant student achievement. High-knowledge leaders recognize that the current practice may not be the best practice and are willing to take risks and innovate. High-knowledge leaders keep part of their attention on the distant horizon of sustained long-term improvement, constantly seeking creative solutions to problems. (p. 2)

Application is represented on the horizontal continuum. Leaders make decisions independently, and fix lower level management needs as they need fixed. At higher levels on the application continuum,

> leadership shifts from the actions of a single leader or a small leadership team to distributed leadership throughout the school community. Empowerment increases the distribution and density of leadership from a single leader to an entire school community taking leadership actions. (Jones, Shannon, & Weigel, 2009, p. 2-3)

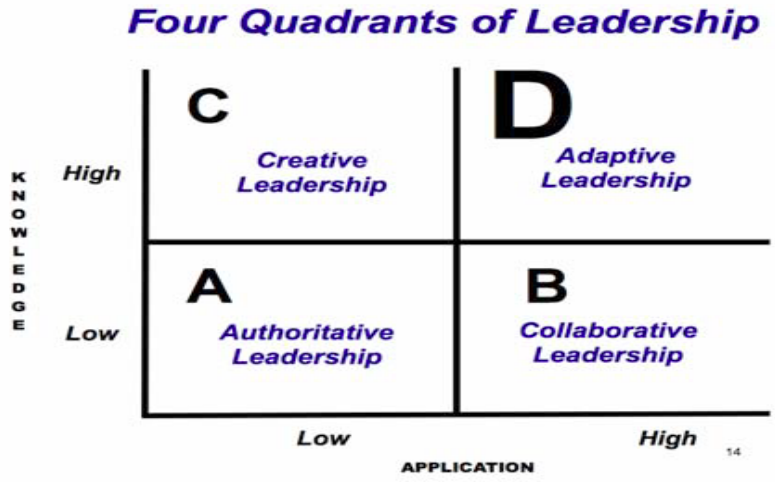
In order to fully understand the mental model, descriptions of each of the Four Quadrants follow:

> **Leadership in Quadrant A (Authoritative Leadership)** applies to traditional leaders, such as the principal, assistant principals, and department chairpersons, acquiring the skills they need and making decisions independently with respect to school improvement and student achievement. Usually, the Quadrant A leader decides and others act. Roles often labeled as "manager" would apply here.
>
> **Leadership in Quadrant B** (**Collaborative Leadership)** involves the application of leadership, not just by traditional leaders, but also by staff. Actions are not based on submitting a problem to a higher level of authority and waiting for a decision. All staff, and ultimately students, work in a highly collaborative environment and take action consistent with the school goals.
>
> **Leadership in Quadrant C** (**Creative Leadership)** characterizes higher-level thinking in which leaders are more reflective and innovative. They are not guided solely by past experience, but anticipate the future and look for new solutions. School goals are tied to current research on proven strategies and practices.

Research and reflective thought guide actions.

Leadership in Quadrant D (**Adaptive Leadership)** is the combination of the both high levels of application and knowledge. At the highest levels of Quadrant D, students are taking a significant leadership role in the school as well as responsibility for their own learning. Leadership in Quadrant D allows a school to change and adapt more easily through staff collaboration in which everyone shares the same vision and commitment to preparing students for their future. (Jones, Shannon, & Weigel, 2009, p. 3)

Figure 4:



21st Century Skills

Cookson (2009) believes that "the 21st century mind will need to successfully manage the complexity and diversity of our world by becoming more fluid, more flexible, more focused on reality, and radically more innovative" (p. 10). The author further asserts that the following could be the basis for a new approach of education:

1) Critical reflection – "enables us to see the world from multiple points of view and imagine alternate outcomes," 2) Empirical reasoning – "thinking empirically is a form of social responsibility. The methods of science offer us a way of thinking that is a strong framework for a healthy and viable approach to problem solving and living together peacefully," 3) Collective intelligence – "the real basis of teamwork is the willingness to think collectively to solve common problems," and 4) Metacognition – "to solve the 21st century's challenges, we will need an education system that doesn't focus on memorization, but rather on promoting those metacognitive skills that enable us to monitor our own learning and make changes in our approach if we perceive that our learning is not going well" (p. 11-12). Trilling and Fadel (2009) suggest schools should focus on questions and problems in the learning process. "The learning method based on the power of questions is called *inquiry-based learning*, or just *inquiry*, and the method that uses the power of designing solutions to problems is called *design-based learning*, or just *design*" (p. 94). These learning methods, utilized with technology, can "drive deep interest, understanding, caring, and the application of 21st century skills to real-world challenges," which can truly engage students. Sad to say, many of our schools are not infusing these methods, skills, attributes, behaviors, and thinking patterns into our students' learning experiences (Schwahn & McGarvey, 2011). This new educational paradigm stands in fierce competition with how things have always been done.

An adaptive educational paradigm takes the best from the past and present, and anticipates needs for the future. Although many of these skills in isolation are not new, how these skills are utilized and synthesized are new, given the context of our global society. Pink (2006) claims that the following six essential abilities, "the Sixth Senses"

are needed to participate in our emerging global landscape: 1) The ability to design, 2) The ability to tell a story, 3) The ability to "put the pieces together," 4) The ability to empathize, 5) The ability to balance seriousness with play, and 6) Ability to find meaning (p. 66-67). Additionally, Friedman (2007) states that the "Help Wanted" advertisements of the 21st century search for people who are: 1) Great collaborators and orchestrators, 2) Great synthesizers, 3) Great explainers, 4) Great leveragers – able to solve a problem and make sure that it does not return, 5) Great adapters, 6) Environmentally conscious, 7) Passionate Personalizers – possess the ability to relate to people and their work with passion, 8) Math lovers, and 9) Great localizers – possess the ability to take the best of the global market, and situate the benefits locally (p. 286-300).

As leaders of today must adapt, be flexible, and engage in multiple roles, so must our students. Since 2002, the Partnership for 21st Century Skills (P21) has been advocating for change in the classroom and in course content. They have been working with stakeholders (educators, civic and community groups, and business leaders) to create a framework to describe the needed skills and knowledge of students in the 21st century, as well as to provide a guide for leaders, teachers, and policy-makers. The framework, in its entirety, can be found in Appendix A.

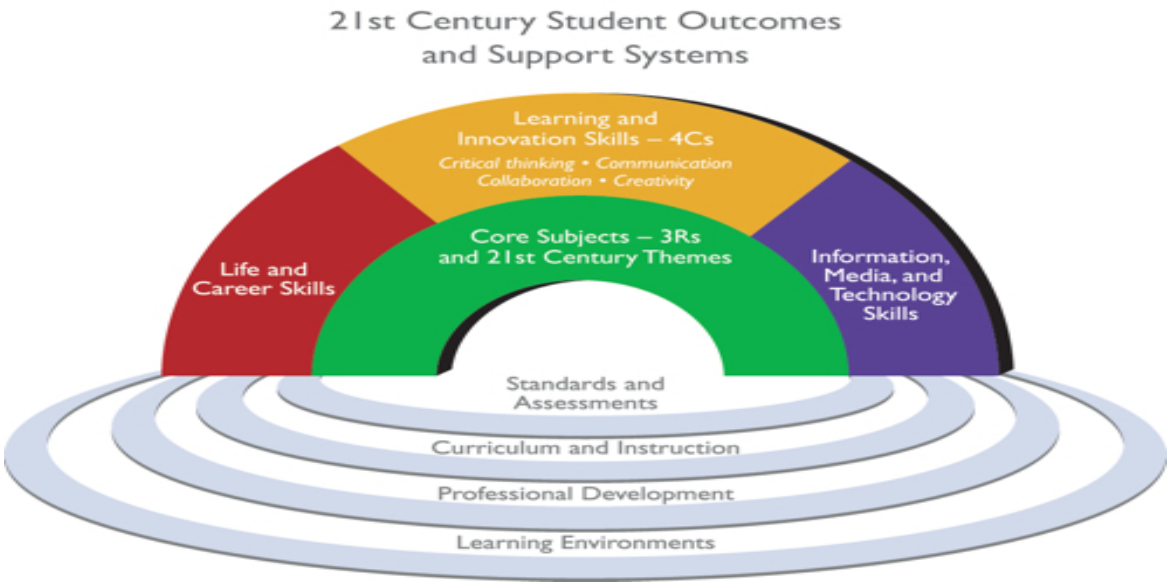


Figure 5:

The Partnership for 21st Century Skills Framework for 21st Century Learning provides a comprehensive tool to describe the skills that are now needed. The framework incorporates two parts: 21st century skills student outcomes (illustrated as the rainbow in Figure 5), and 21st Century skills support systems (illustrated as the ripples in Figure 5). Retrieved from: http://www.p21.org/index.php?option=com_content&task=view&id=254&Itemid=120

The 21st century skills outcomes include: all 1) core subjects and 21st century interdisciplinary themes, such as global awareness, financial literacy, civic literacy, health literacy, and environmental literacy, 2) learning and innovation skills, such as creativity and innovation, critical thinking and problem solving, and communication and collaboration, 3) Information, media, and technology skills, such as information literacy, media literacy, and information, communications, and technology (ICT) literacy, and 4) Life and career skills, such as flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility (Partnership, 2010).

The 21st century skills support systems include: 1) 21st century standards – focuses on skills and interdisciplinary themes and engages students in real-world meaningful problems, 2) assessment of 21st century skills – technology-enhanced formative and summative assessments, 3) 21st century curriculum and instruction – utilizes higher-order thinking, 21st century skills and interdisciplinary themes taught across the curriculum and beyond the school walls, 4) 21st century professional development – professional learning communities to allow for identification of student learning styles and activities that can be replaced through virtual or blended learning options, and 4) 21st century learning environments – learning strategies, human capacity, and physical plant that support 21st century learning through relevant, real world 21st century contexts (Partnership, 2010).

The American Management Association (AMA) suggests that today's managers want their workers to possess the following skills: critical thinking, problem solving, communication, collaboration, creativity, and innovation. It is predicted the demand for these kinds of "soft" skills will only increase in the future (Partnership, 2010).

In 2010, the AMA and P21 conducted a Critical Skills survey of business managers and executives inquiring about the 21st Century skill level of their workers. "AMA's survey shows that an overwhelming number of respondents believe that these 21st century skills are important to their organizations today and will become even more important in the future," said Edward T. Reilly, AMA president and CEO. Three out of four (75.7%) executives who responded to the AMA survey said that they believe these skills and competencies will become more important to their organizations in the next three to five years, particularly as the economy improves and organizations look to grow and innovate. Edward T. Reilly, AMA President and CEO continues: "Many executives

feel that their current workforce is not as well developed in these areas as they need to be" (AMA, 2010, p. 1). According to the AMA survey results, eighty percent (80%) of executives believe that fusing the three Rs (reading, writing, and arithmetic) and four Cs (communication, collaboration, critical thinking, and creativity) would ensure that students are better prepared to enter the workforce.

Similarly, the National Center on Education and the Economy's (NCEE) Executive Summary *Tough Choices or Tough Times* (2007) states that the following skills, attributes, and behaviors are necessary for success in the twenty-first century:

> Strong skills in English, mathematics, technology, and science, as well as literature, history, and the arts will be essential for many; beyond this, candidates will have to be comfortable with ideas and abstractions, good at both analysis and synthesis, creative and innovative, self-disciplined and well-organized, able to learn very quickly and work well as a member of a team and have the flexibility to adapt quickly to frequent changes in the labor market as the shifts of the economy become even faster and more dramatic. (p. 8)

Friedman (2007) suggests the following five (5) skill sets or attitudes toward learning, as reported by employers and educators, would also be helpful in preparing students for their future jobs in a flat world:

1) The ability to "learn how to learn" – It is not only what you know but how you learn that will set you apart. Because what you know today will be out-of-date sooner than you think. (p. 309)
2) Possession of "navigation skills" – Teaching them how to navigate that

virtual world, and how to sift through it and separate the noise, the filth, and the lies from the facts, the wisdom, and the real sources of knowledge becomes more important than ever. (p. 310)

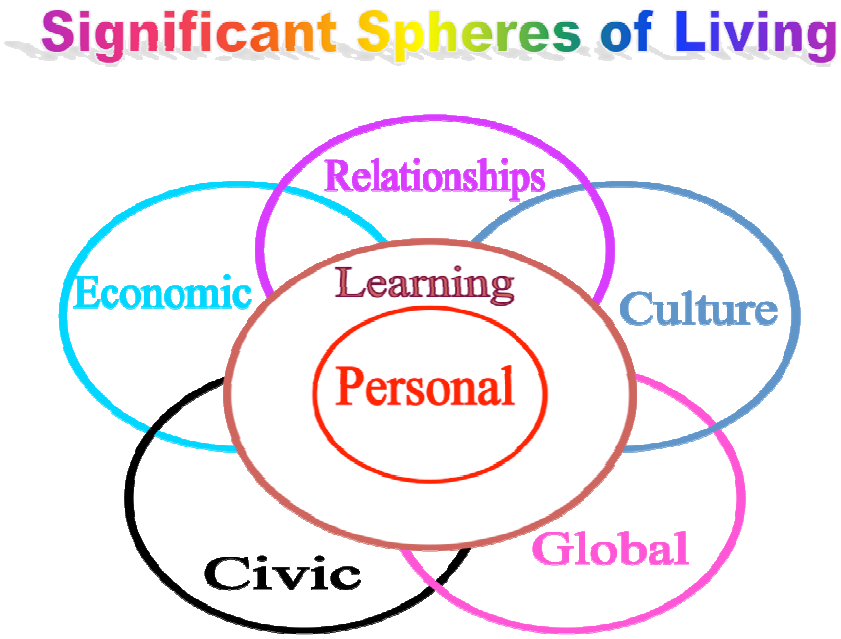
3) Passion and curiosity (CQ + PQ > IQ) – IQ – intelligence quotient still matters, but CQ and PQ – curiosity quotient and passion quotient – matter even more…Doc Searls, senior editor of the *Linux* journal,...(said) 'Work matters, but curiosity matters more. Nobody works harder at learning than a curious kid.' (p. 314)

4) Stressing Liberal Arts – Encouraging young people early to think horizontally and to connect the disparate dots has to be a priority. Because this is where and how so much innovation happens. But first you need dots to connect. And to me that means a liberal arts education. (p. 316)

5) Right Brain – Students need to be able to mesh together different perspectives and disciplines to produce a third thing. That skill is something that happens on the right side of our brains – and educators need to think about how we nurture that. (p. 320)

Although these skills are necessary for learning and performance in the global workforce, what is equally important is the balance of what P21 calls "Life and Career Skills" and Spady and Schwahn (2010) call "Spheres of Living" (See Figure 5).

Figure 6:



The significant Spheres include the following: 1) Personal – focuses on the physical, mental, emotional, social, and spiritual development, 2) Learning – occurring both formally through school, and informally through discovery and experience, 3) Relationships - Intimate, family, work, and acquaintances, 4) Economic –as worker, consumer, and financial manager, 5) Civic – focuses on politics (leaders, issues, and directions), and obligations (maintain orderliness in society and contribution to society), 6) Global – focuses on interrelationships as they present themselves in the economic, political, and social sector (s), and in the global environment, and 7) Cultural – as presented by one's lifestyle, heritage, traditions, values, and the arts, such as literature, music, art, and dance.

In order to meet the demands of the global workforce, as well as honoring and guiding the students' development within their spheres of living, schools must embrace

the "spirit of creativity and innovation" that is visible throughout the school, manifested by leaders, teachers, and students alike (Darling-Hammond, 2010, p. 6).

CHAPTER III

METHODOLOGY

Introduction

Educational research serves many purposes. It fundamentally provides for "the basis of knowledge about education and for influencing decisions, programs, and policy" (McMillan & Schumacher, 2001, p. xix). Depending upon the research question(s), and the purpose of the study, different methodologies can be employed. Research approaches can be either quantitative or qualitative in design.

"Because research systematically describes or measures phenomena, it is a better source of knowledge than one's own experience, beliefs, tradition, or intuition alone" (McMillan & Schumacher, 2001, p. 6). Overall, the process and purpose of educational research is to improve educational practice through the development of knowledge and understanding. Furthermore, "education is a field of inquiry where the phenomena, events, people, processes, and institutions constitute the raw materials for inquiries of many kinds" (McMillan & Schumacher, 2001, p. 10-11).

Summary of Study

The purpose of this descriptive case study was to investigate a change process that incorporated the Partnership for 21st Century Skills Framework for 21st Century Learning (P21) into curricula. I focused on the leaders' perceptions of the change process that allowed for 21st Century Skills to become embedded into the curricula. I was interested in learning what needed to be changed and how the change occurred.

Theoretical Lens

The theoretical lens through which this case was studied and described is Adaptive Leadership Theory, as discussed in detail in Chapter 2. Cresswell (2003) asserts, "when qualitative researchers use a theoretical lens, they can form interpretations that call for action agendas for reform and change" (p. 195).

Philosophical Underpinnings

A constructivist paradigm is the foundation upon which Stake (1995) and Yin (2003) base their views on the case study. Constructivists claim that truth is relative and that it is dependent on one's perspective. Social construction of reality (Searle, 1995) occurs, and is the foundation upon which constructivism exists. Through stories extrapolated through research, the participants are able to describe their views of reality and this then enables the researcher to better understand the participants' actions (Lather, 1992).

Research Design

Based upon the research questions, I utilized a qualitative mode of inquiry; specifically, a descriptive case study, as one of the objectives of this study was to collect data through document and artifact review, as well as oral history. I studied a change process that has already occurred. McMillan and Schumacher (2001) indicate that oral history "records the spoken words and testimonies of individuals" (p. 500). Additionally, Merriam (1998) asserts that a case study is "particularly useful for studying educational innovations" (p. 41). My intent was to gain insight and understanding of a particular

situation or phenomenon (Stake, 1995); therefore, I utilized a descriptive case study to gain that understanding.

A descriptive case study seeks to describe an intervention or phenomenon and the real-life context in which it occurred (Yin, 2003). This descriptive case study is a single case with embedded units as I was interested in identifying and understanding the case as a whole, as well as the sub-units that were situated within the case (Yin, 2003).

Site Considerations

It was my intent to study a school district that has fully implemented the P21 Framework into the curriculum. Murrieta Valley Unified School District (MVUSD) in Murrieta, California accepted the invitation to participate in my study. The district demographics are discussed in detail in Chapter 4 as part of the document and artifact review.

Participants

As I viewed this case from an Adaptive Leadership perspective that assumes that leadership can come from any level in the organization, despite the fact that leadership can also come from students, I was interested in only the adult leader perspectives of the change and implementation process for the purposes of this study.

Educational leaders were the participants in this study. The participants have given me permission to use their name, as well as the name of the school district. The educational leaders who participated in the study are Guy Romero (Murrieta Valley Unified School District Assistant Superintendent of Educational Services), Renate Jefferson (Principal at Murrieta Valley High School), and Mary Walters (Principal at Murrieta Mesa High School). Two other high school principals were invited to

participate in this study; however, they declined to participate through lack of response to the invitation to participate.

Data Collection and Analysis

In this descriptive case study, I served as the instrument through which data was collected (Cresswell, 2003). I utilized multiple data sources, in order to enhance data credibility (Patton, 1990; Yin, 2003). Data sources included documents (and document review), recorded and transcribed semi-structured interviews in the form of oral testimonies, and relics. Documents are "records of past events." Oral testimonies are "records of spoken word." Relics are "any objects that provide information about the past" (McMillan & Schumacher, 2001, p. 502-503). In this study, the relics presented themselves in the form of documents. Documents included email communications with attachments, as well as website artifacts. Oral history testimony was collected in the form of semi-structured interviews.

Through document and artifact review, and oral history of participant (leader) stories, the participants (leaders) described their views of reality, enabling me to better understand the participants' actions (in the change process) (Lather, 1992). I employed inductive reasoning to determine emergent themes from the semi-structured oral history interviews and document review. The data was placed into categories or "bins," based upon emergent themes (Miles & Huberman, 1993, p. 18). The data was converged and analyzed within the sub-units separately (within case analysis), between the different subunits (between case analysis), and across all of the subunits (cross-case analysis) (Yin, 2003).

Trustworthiness

In order to establish trustworthiness and validity in this study, I engaged in the following practices, as recommended by Cresswell (2003):

- "Triangulation" of data through multiple sources "by examining evidence from the sources and using it to build a coherent justification for themes."
- The utilization of "member-checking" which allows the participants to determine the accuracy of both content and context of the findings.
- The use of "rich, thick description to convey the findings"
- The declaration of "bias the researcher brings to the study" (p. 196).

It is also important to note the trustworthiness of the participants. The professionals included in this study were authentic and real. For example, I was assured as the researcher that they were not simply giving me the "company line." Guy Romano was extremely forthright in indicating that communication was a challenge and obstacle that needed to be overcome. The principals also expressed some hesitancy from teachers and parents, initially. Through leadership, they were able to overcome such obstacles.

Researcher Bias

I acknowledge the paradigm through which I view the subject matter is based upon a constructivist philosophical underpinning. This could be advantageous, however, as I intended to "construct" knowledge and understanding situated at a site with participants with whom I have no association. As I am passionate about relevant learning experiences for students, innovation, and preparation for their future, I embrace my bias.

My closeness to the field brings a certain tacit understanding that enriched the study, while I controlled for my subjectivity through trustworthiness activities (as listed above).

As a scholar-practitioner (McClintock, 2003), I have maintained an omnipresent commitment to learning. I have committed my career to the holistic development of young people, specifically in secondary schools (suburban Catholic school, rural Career and Technical Center, and suburban public schools), and have had the opportunity to share what I have learned as a teacher, teacher-leader, and administrator.

I have seen and experienced first-hand how the values of an organization are demonstrative in the overall organizational culture, and have also seen how those values and culture influence how jobs are performed, as well as how change occurs. For example, as a teacher in a Catholic school, values formation was a strong priority; however, what was most pervasive in the school culture is that when we educate, we educate the whole child. We were mindful to connect with students intellectually, emotionally, and spiritually. A corollary value, or the undercurrent, was the mindset of being a servant. We serve our students, their families, our community, and our world. As a teacher and teacher-leader in a Career and Technical Center, I have witnessed first-hand the value of a relevant education; that is, one that demonstrates applicability to what the students will face in the workforce. As a public school teacher and administrator, the often unspoken, yet identifiable value is that we educate to prepare students to be successful in society. We ensure that no rights have been violated, and follow policy and procedure to protect the rights of students, as well as to ensure that no culpability falls upon the school district. We believe that all students can learn, and through timely

benchmarking we track the progress of each child. We are certain to provide a free and appropriate education, yet we always tend to do better than that.

These experiences have enabled me to construct personal and professional perceptions of what can be done, what should be done, and how it should be done to improve the educational experience, the organization as a whole, and student learning outcomes.

I view the theoretical lens of adaptive leadership to be useful and relevant not only for this study, but for professionals interested in collective discourse, innovation, and meaningful school improvement. I believe our nation's public schools can be doing a better job to prepare students for the complex world in which they will some day work.

Although the aforementioned may bias how I interpreted data, I embrace this. I am committed to providing a thorough analysis of the study. I made every attempt to remain as objective as I could on the journey of discovering leaders' perceptions of a change process.

CHAPTER IV

RESULTS

Introduction

The purpose of this descriptive case study was to investigate a change process that incorporated the Partnership for 21st Century Skills Framework for 21st Century Learning (P21) into curricula. I focused on the leaders' perceptions of the change process that allowed for 21st Century Skills to become embedded into the curricula. I was interested in learning what needed to be changed and how the change occurred. The Murrieta Valley Unified School District (MVUSD) began the process of incorporating P21 into the curricula of their high schools in August 2008. For the purposes of this study, data were collected from the MVUSD website, district office personnel, emails with district personnel, and the following two (2) comprehensive high schools' websites and principals: Murrieta Valley High School (MVHS - 2,503 students) and Murrieta Mesa High School (MMHS - 1,685 students).

Document Review

Superintendent's Message:

> Dr. Stan Scheer, Superintendent of MVUSD states on the website:
>
> …If you visit one of our schools, you will find that schools today are far more rigorous than they were twenty or thirty years ago. Academically, more is demanded of our students. With the ever-changing nature of the world and workforce, not only must today's graduates be proficient in core academic subjects, they need to be critical thinkers, problem solvers and effective communicators. They need global awareness, financial, economic and civic

> literacy. These 21st century skills are in demand for all graduates, no matter what their future holds. In line with our district's Strategic Plan and Focus Areas, we are integrating 21st century learning skills with rigorous and relevant academic instruction. Our top priority is to continue to raise the bar so students are learning at higher levels and gaining the skills they will need to compete in an economy that runs on information and demands creativity and innovation…
>
> Retrieved from: http://www.murrieta.k12.ca.us/domain/15

District Demographics:

The MVUSD educates 22,278 students in its ten (10) K-5 elementary schools, one (1) K-5 Arts-Oriented Choice School, four (4) 6-8 middle schools, three (3) comprehensive high schools, one (1) continuation high school, and one (1) Independent Study Academy. The ethnic/racial distribution of the student population is as follows: American Indian or Alaska Native-1.0%, Asian-3.0%, Pacific Islander-1.0%, Filipino-6.0%, Hispanic or Latino-23.0%, African American-6.0%, White (not Hispanic)-51.0%, and Multiple or No Response-10.0%. The MVUSD 2010-2011 adopted budget allocates $152,147,860 for expenditures, and $144,523,585 for revenue. Approximately 24% of the student population qualifies for Free and Reduced Lunch, and are, therefore, considered low socio-economic status (SES).

District Mission:

> **Our Mission:** To Inspire Every Student To Think, To Learn, To Achieve, To Care.
>
> The Board of Trustees adopted the final Strategic Plan on March 22, 2007, following an eight-month strategic planning process. During that process, Board

Trustees and Senior Cabinet administrators developed a draft mission statement, beliefs, focus and directions to define and guide the future of Murrieta Valley Unified School District. District employees, students, parents and community members gave us their feedback and suggested changes on the draft Strategic Plan. Of the 750 people who completed an on-line survey, 94% expressed support for the mission statement and 96% supported the belief statements and directions.

District Beliefs:

Beliefs:

* Our primary responsibility is student learning.
* Equal opportunity for a quality education is a cornerstone of a free democratic society.
* Optimal learning is possible when the community shares a commitment to students and their success.
* Integrity and fiscal responsibility are essential values to the health and vitality of the district in achieving its educational mission.
* Parental support and involvement is necessary for students' optimum success in education.
* Articulated and sequential programs best meet the needs of diverse learners.
* Student physical, mental, social and emotional health is integral to learning.
* Students, parents and staff can best realize their full potential in an atmosphere of mutual respect, caring, and understanding.
* Results are best achieved when parents, students, staff and the Governing Board hold themselves accountable for decisions, actions and student learning.

* A quality education system results in students who think critically, work cooperatively, communicate effectively, and act ethically.
* Students learn best when their interests, passions and talents are engaged in relevant learning experiences.
* A world-class education, integrating academic and vocational skill mastery, prepares students for the challenges, opportunities and careers of a competitive global society.
* Effective use of technology creates more powerful instructional systems and enables students to communicate and compete in a global environment.
* A well-rounded education provides students with varied learning opportunities that include curricular and co-curricular offerings.
* Students and staff function best in a safe and secure environment with quality facilities.
* A premier educational environment requires exceptional teachers, administrators, and staff supported by effective professional development, competitive compensation, and personnel practices that attract and retain quality employees.
* An appreciation for the importance of cooperation, the merits of healthy competition and individual challenge are necessary for achievement.

District Focus:

Service and Commitment to Every Student, Every Day.

District Strategic Direction:

* Integrate rigorous, relevant, and sequential academic and vocational curriculum,

instruction, and assessment practices to meet the needs of our 21st century students.

* Provide educational programs and services that support each student in identifying and making healthy choices.

* Develop safe and secure campuses through the implementation of security practices that include disaster preparedness and the development of related technological systems.

* Design and/or expand technology systems and facilities to effectively meet student and staff needs in a 21st century environment.

* Provide connections with the community to achieve strong partnerships to benefit student learning.

* Provide services and support systems to assist all students, including diverse, gifted, and at-risk learners, to attain academic success.

* Explore and implement practices that vigorously engage parents in partnership with staff and students to foster excellence in achievement.

* Ensure fiscally responsible and efficient use of public resources to equitably support student learning

* Provide systematic professional development opportunities for all employees that promote continuous improvement of relevant knowledge and skills.

* Implement activities and programs that encourage student development of character, integrity and respectful citizenship.

* Promote student participation in visual and performing arts, athletics, and other co-curricular activities.

* Encourage and acknowledge creative thinking and approaches to learning by students and staff alike.

* Recruit and retain exceptional teachers, administrators, and staff through competitive compensation and quality personnel practices in a culture of mutual respect.

Retrieved from: http://www.murrieta.k12.ca.us/Domain/9

21st Century High School Collaborative:

On August 27, 2008, Guy Romero (MVUSD Assistant Superintendent – Educational Services) sent an email to district leaders (Central Office and High School Principals) regarding what he referred to as the "21st Century High School Collaborative." Stakeholders included in this collaborative included Central Office personnel, high school principals, high school teachers, parents, and community leaders in business and higher education. An excerpt from his email included the following information:

Background: Murrieta Valley USD, through the Educational Services Division, will be studying 21st Century high school structures and requirements as part of the Division's primary goals (WIGS) for 2008-2009. The emphasis will be on inspiring the 21st Century student to think, to learn, to achieve, and to care.

- The student centered discussions will include topics such as:
  - Graduation credits
  - Alternative means of delivering instruction including online and
  - Online hybrids
  - Seat time requirements
  - Senior Seminars
  - Senior project
  - Use of technology in instruction
  - Alternative assessments
  - Required courses

- Athletics and academics
- Schedules
- International educational partnerships and virtual classrooms
- IHE partnerships including completion of college courses in HS
- Service Learning options
- Other

Each of the discussions lasted three hours. The collaborative met once in September 2008, twice in October 2008, once in November 2008, and once in December 2008. For the first meeting in September 2008, agenda items included:

Purpose: To create a 21st century blueprint for the design, organization, and management for high schools with a relentless focus on the results that matter for the 21st Century student

- Activity: 21st Century High School – what do we believe students need?
- Debrief and discussion
- Activity: Rating the degree of importance on various topics
- Introduction to the Partnership for 21st Century Schools
- Open agenda items
- Final thoughts

21st Century High School Collaboration Team
September 12, 2008

Student Needs:

Online learning
Option for student/choices
Charter schools
Adapt
Global awareness & perspective
Authenticate what's real
Open-ended classes
College-prep requirements
Preparation to "World of work"

Advanced training & learning
Communication Skills

Why are we here?

Explore various models
What is best for students
Need for change to compete globally

What do the student's need?

- Career self-management skills
- Technology skills
- Alternative choices for learning (assessments processes, settings/systems, structure)
- Vested in their learning
- Global awareness and knowledge
- Adaptability and resiliency
- Teachers are willing to change and learn new things
- Parents are willing to change
- Changed Instruction
  * Inquiry
  * Emphasis on mastery and application
  * Critical thinking
  * Creativity
  * Interpersonal
  * Problem solving skills
  * Independent learner/thinking
- Connectivity/human support
- College and work place ready
  * Global economy
- Early intervention for students who are behind (Elem. & Middle School)
- Failure is not an option
- Continuous learning
- Students need to be allowed to use available resources for learning and assessment in school.

Connection to School, Adults, Education

- Pride in community
- Academic Content
- Tools/Infrastructure
- Go Beyond
- Access Technology
- "Doing" not memorization
- Applying, interconnecting

- Equip to unlearn and relearn
- Problem solving
- Pre-College/internships
- K → Articulation
- Global awareness

On September 30, 2008, Guy Romero sent an email to the 21st Century High School Collaborative regarding a meeting that took place on September 29, 2008 with Hewlett Packard engineers and senior level managers. The meeting was to determine what the 21st Century work skills and expectations were for Hewlett Packard. The email, in its entirety is included below:

21st Century HS Collaborative
Hewlett Packard Visitation
September 29, 2008

Notes:

Discussion was held with 19 Hewlett Packard Engineers and Senior Level Managers from Rancho Bernardo, CA, Corvallis, OR, Singapore, and Shanghai in the HP Halo room. Represented were 4 countries, multiple nationalities including American, Chinese, Iranian, Pakistani, German, English over 10 time zones for 90 minutes.

Hewlett Packard, which owns EDS, is number 14 in the Fortune 500 (USA) and 41 (Global) with annual revenue of $126.3 billion dollars and have 311,000 employees. HP is number 1 in nine technological categories, number 2 in 5 categories, and number 3 in 1 category. HP produces 46.6% of the world's inkjet printers, 43.5% of the world's laser printers, and 37.3% of the world's desktop computers.

The R and D annual budget is $3.6 billion dollars.

The question asked was regarding 21st century work and expectations in Hewlett Packard.

- Work together, not independently
- Critical thinking is key
- Not rote or cookbook knowledge
- Have a strong background in math, science (chemistry) – make sure the learning experience is project-based
- Application instead of memorization
- Having a liberal arts background is also valuable, especially strong communication skills
- Second languages are important (Chinese, German, French, and Spanish)
- Soft skills are important such as basic manners and conduct in business meetings and formal business dinners
- Understand current technologies and web engines
- Versatile, business sense
- Relationships are important
- Creativity and innovation
- Presentation skills
- Have understanding and respectful of the cultures and differences
- Know how to work in a team environment
- Competitiveness can be problematic – must work as a team
- Go to college, no matter the college
- Must be motivated, a go getter
- Remember – there are people in the global setting getting an education because they want your lifestyle and your job
- Nobody holds your hand in corporate America

Discussions regarding the educational system flaws and the lack in innovation and creativity in Singapore and China were shared by Senior Managers who lived and worked in Singapore and Shanghai were insightful.

For the October 3, 2008 21st Century High School Collaborative meeting, the focus was on graduation requirements along with a review of information from the visitation to Hewlett Packard by MVUSD staff. Part 2 of the P21 Framework was also shared. In preparation for the meeting, the Collaborative was asked to review graduation requirement documents and the Partnership for 21st Century Schools document. The discourse questioned what content/course requirements they have that they need to keep,

what content/course requirements they have that they can do differently, and what content/course requirements they have and did not include.

On October 20, 2008, Guy Romero sent an email to leadership indicating that they were ready to share "draft ideas on changes in graduation requirements," as well as "a review of an educational plan" for the "new Murrieta Mesa High School."

> We are hoping you can join us for our next meeting this Friday, October 24th from 1:30 to 4:30 to and provide input on our plans for Murrieta Mesa High School and the career pathways we have planned, along with the hope to have a wide range of articulation agreements and college course offerings in place at Murrieta Mesa with (a local community college).

Because of the tremendous growth in MVUSD, the district was going to be opening a new high school. As such, their desire was to have 21st century skills embedded throughout the new high school. Mary Walters, Principal of Murrieta Mesa High School, was interviewed for this study. Her thoughts are included in the Interview Results section of this dissertation.

Additionally, On October 20, 2008, Guy Romero sent an email in preparation for the 21st Century High School Collaborative Meeting on October 24, 2008, indicating that they will have three representatives from the local community college join them. He indicated:

> They are very interested in the graduation requirements we have and especially interested in the career pathways planned for Murrieta Mesa High School. We will also discuss Information Communication Technology (ICT) literacy and what it looks like as a 21st century requirement and how "soft skills" might be

measured and part of the graduation requirement.

The agenda for the meeting is attached:

1. Welcome, notes, and today's focus:
   - Graduation requirements
   - Information Technology Literacy requirement
   - Murrieta Mesa Educational Plan

2. Graduation Requirements – Review
   - District Policy with notes from last meeting
   - Comments from staff
   - Recommendations from the Partnership for 21st Century Schools Re: Soft Skills (Life and Career Skills) competency

3. ICT Literacy Requirement: How do we insure ICT literacy
   - ICT – What it is and one method to assess
   - Input from staff

4. Murrieta Mesa Instructional Plan
   - Career Pathways and articulation plan with IHE

5. Final thoughts
   - Why conflict is important

On November 7, 2008, Guy Romero sent an email including the agenda for the November 8, 2008 21st Century High School Collaborative Meeting. Items included a focus on online courses (developing capacity and contracting), thoughts regarding a local school district's White Paper on online learning, presentations from a local community college, and an online education provider, review of graduation requirements, and a focus on the P21 soft skills/life and career skills, as embedded in the senior project.

Throughout the process of the collaborative learning and decision-making, MVUSD desired to create a White Paper that encompassed everything that they have discussed and decided, as well as to provide recommendations thus far into the process of

incorporating 21st Century Skills. On February 20, 2009, Guy Romero sent the following email to staff:

> As promised, the draft of the 21st Century Collaborative Whitepaper is being sent to you for review before I schedule various focus group meetings for additional comments and input.
>
> My preliminary timeline of activities include:
>
> - March: Focus groups with staff, parents, business, and community
> - April: final clean-up – sent to Board as information
> - May: reviewed in Open session with Board
> - June: Action item on policy changes regarding graduation requirements (this is the only item that needs immediate Board Action)

The MVUSD White Paper is entitled, *21st Century Collaborative Project: An Educational Initiative to Transform High School for the 21st Century*. It can be found, in its entirety, in Appendix E.

MVUSD discusses the 21st Century Collaborative Project on its website:

> **21st Century Collaborative Project**
> ***An Educational Initiative to Transform High School for the 21st Century***
>
> The quality of a high school is often measured by the ability to prepare graduates for higher education or the world of work. With the ever-changing nature of the world and workforce, not only must today's graduates be proficient in core academic subjects, they need to be critical thinkers, problem solvers and effective communicators. In short, they need 21st century skills.
>
> The district's 21st Century Collaborative team explored a wide range of current educational trends and practices, reviewed research and literature, and collaborated with the private sector and higher education to ensure MVUSD students graduate with the skills and habits of mind necessary to face the ongoing technological and workforce changes they will encounter and prepare our students for the challenges and opportunities that lie ahead.

The six key elements from *Results that Matter: 21st Century Skills and High School Reform,* published by the Partnership for Twenty First Century Skills, were used to guide the team's discussions and provide a framework.

The key elements of a 21st century blueprint for high schools are:

1. **Core Subjects**

Mastery of core subjects including:

- English, reading and language arts
- World languages
- Arts
- Mathematics
- Economics
- Science
- Geography
- History
- Government and Civics

2. **21st Century Content**

In addition to these subjects, schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into the core subjects. The interdisciplinary themes include:

- Global Awareness
- Financial, Economic, Business, Entrepreneurial Literacy
- Civic Literacy
- Health Literacy

3. **Learning and Innovation Skills**

Learning and innovation skills increasingly are being recognized as the skills that separate students who are prepared for increasingly complex life and work environments in the 21st century from those who are not. A focus on creativity, critical thinking, communication and collaboration is essential to prepare students for the future. Specifically, these skills include: including Students now live in a technology and media-rich environment marked by access to an abundance of information, rapid changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale. This requires students to be media literate and able to process and sort vast amounts of information. To be effective in the 21st century, citizens and workers must be able to exhibit a range of functional and critical thinking skills related to information, media and technology.

- Creativity and Innovation Skills
- Critical Thinking and Problem Solving Skills
- Communication and Collaboration Skills

4. **Information, Media, and Technology Skills**

Students now live in a technology and media-rich environment marked by access to an abundance of information, rapid changes in technology tools, and

the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century, citizens and workers must be able to exhibit a range of functional and critical thinking skills related to information, media and technology. Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate complex life and work environments in the globally competitive information age requires students to develop adequate life and career skills include:

- Information Literacy
- Media Literacy
- ICT (Information, Communications & Technology) LITERACY

5. **Life and Career Skills**

Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to develop adequate life and career skills. These skills include:

- Flexibility & Adaptability
    - Adapting to varied roles and responsibilities
    - Working effectively in a climate of ambiguity and changing priorities
- Initiative & Self-Direction
    - Monitoring one's own understanding and learning needs
    - Going beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
    - Demonstrating initiative to advance skill levels towards a professional level
    - Defining, prioritizing and completing tasks without direct oversight
    - Utilizing time efficiently and managing workload
    - Demonstrating commitment to learning as a lifelong process
- Social & Cross-Cultural Skills
    - Working appropriately and productively with others
    - Leveraging the collective intelligence of groups when appropriate
    - Bridging cultural differences and using differing perspectives to increase innovation and the quality of work
    - Developing active listening skills
- Productivity & Accountability
    - Setting and meeting high standards and goals for delivering quality work on time
    - Demonstrating diligence and a positive work ethic (e.g., being punctual and reliable)
- Leadership & Responsibility

- Using interpersonal and problem solving skills to influence and guide others toward a successful attainment goal
- Identifying and leveraging strengths of others and demonstrating the ability to effectively utilize these strengths in order to accomplish a common goal
- Demonstrating integrity and ethical behavior
- Acting responsibly with the interests of the larger community in mind

6. **Authentic 21st Century Assessments**
   Measuring these four key elements must include authentic assessments that are valid, reliable, affordable and sustainable. A balance of traditional assessments may include standards-based and standardized tests, along with classroom-designed assessments focusing on critical thinking, problem-solving, and communication skills.

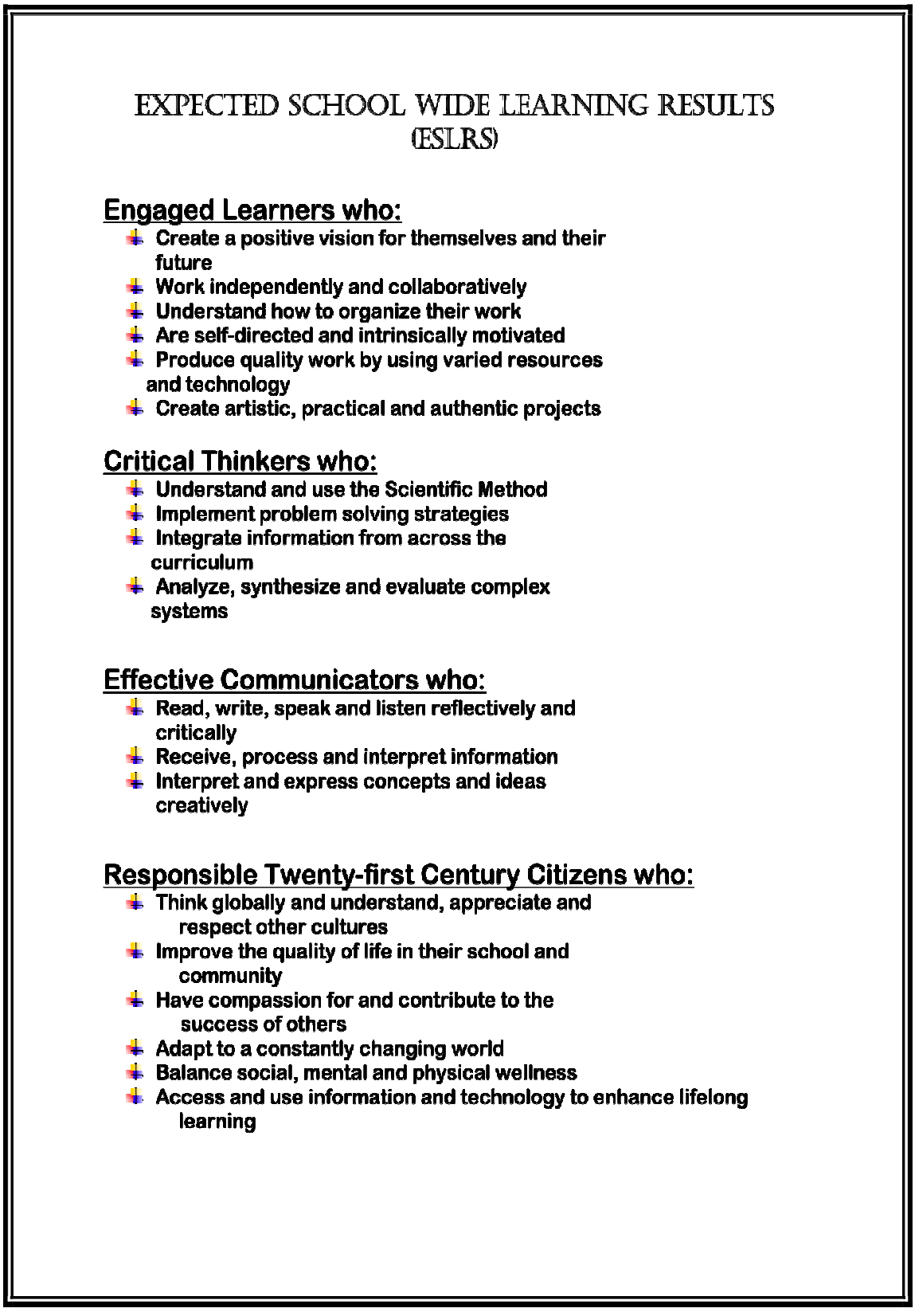
Murrieta Valley High School:

Ms. Renate Jefferson, a participant in this study, is Principal of Murrieta Valley High School (MVHS). MVHS is recognized as an International Baccalaureate World School. On the high school website, it states: "At MVHS, we 'Do it the R.I.T.E. Way, the Nighthawk Way-with Respect, Integrity, Teamwork and Excellence.'" The Mission of Murrieta Valley High School is "to inspire and empower all students to grow academically, emotionally, and socially in order to become productive citizens who serve others and meet the challenges of the 21st Century." Additionally, the Expected School Wide Learning Results (ESLRS) are 21st century skills (See Figure 7).

The vision of MVHS is:

> Our students will become involved as self-directed learners who utilize problem-solving skills, communicate effectively, sustain positive self-esteem, and demonstrate concern and respect for others. Together, students, staff, and community will function best in a climate, which is safe and comfortable, and where all can learn and grow.

Figure 7:


EXPECTED SCHOOL WIDE LEARNING RESULTS
(ESLRS)
Engaged Learners who:
Create a positive vision for themselves and their future
Work independently and collaboratively
Understand how to organize their work
Are self-directed and intrinsically motivated
Produce quality work by using varied resources and technology
Create artistic, practical and authentic projects
Critical Thinkers who:
Understand and use the Scientific Method
Implement problem solving strategies
Integrate information from across the curriculum
Analyze, synthesize and evaluate complex systems
Effective Communicators who:
Read, write, speak and listen reflectively and critically
Receive, process and interpret information
Interpret and express concepts and ideas creatively
Responsible Twenty-first Century Citizens who:
Think globally and understand, appreciate and respect other cultures
Improve the quality of life in their school and community
Have compassion for and contribute to the success of others
Adapt to a constantly changing world
Balance social, mental and physical wellness
Access and use information and technology to enhance lifelong learning

In terms of MVHS' instructional goals and program, the website indicates:

> Our commitment is to meet the needs of every student and to create an atmosphere where learning and excellence are the norm. Our focus is to motivate, educate, and prepare students for college. If a student is prepared for the highest academic level, all post-high school options are available. The district support center staff, teachers, lead teachers, mentors, school support staff, administrators and parents are all actively involved in providing focus, resources, research data and instructional training for the continuous improvement of the instructional program at MVHS.
>
> Retrieved from: http://www.murrieta.k12.ca.us/Domain/1416

Murrieta Mesa High School

Ms. Mary Walters, a participant in this study, is the Principal of Murrieta Mesa High School (MMHS). The MMHS motto is "Pursue your passion . . . leave a legacy," and the mission statement is "We at Murrieta Mesa have a relentless belief in and unwavering commitment to students. It's not a job, it's our passion!"

The MMHS was built in 2009 with the intention to foster 21st century skills. In order to facilitate this intention, academic pathways were created in the following areas: medical, business and culinary, visual and performing arts, engineering, and liberal studies.

Interview Results

Guy Romero – MVUSD Assistant Superintendent – Educational Services

Guy Romero began his career as mathematics teacher in a junior high in a large, urban Orange County, California at the age of twenty-two. He is now fifty-seven years old. He served as an athletic coach, which led to the opportunity to teach sections of physical education. Professional opportunities then led him to be a leader in staff development. He eventually moved to MVUSD, a small district in southwest Riverside County, California. There were 350 students at the time, which has grown to 22,500 today. He taught science and mathematics for four years at the seventh and eighth grade levels. He then went into educational leadership as a principal responsible for opening a new school. He was a principal for four years. He also taught kindergarten his first year as principal. He then became Director of Curriculum, Instruction, and Assessment. In 1990, he became Assistant Superintendent. At that point in time, there were 3,000 students. He is also trained as a facilitator through the Covey Leadership Center.

Servant leadership best describes his leadership style, as well as the culture at MVUSD. Most of the Central Office personnel have been there since the district was very small. Central Office personnel very much maintain the mindset of servant leadership. Mr. Romero takes the "triangle of leadership, and flips it upside-down." He often asks how he can best help others to meet their goals.

The current MVUSD mission is "To Inspire All Students to Think, to Learn, to Achieve, and to Care." Mr. Romero goes on to explain that there is "a very important story" about how they arrived at this mission statement:

> Bottom line, we did feel that it was very 21st Century…very forward thinking…Again, we call it is a goose bump raiser to inspire. Prior to that, it was "Academic Success for All Students," and we really began to wonder what academic success was all about. Is that what it is all about? What about the affect? What about caring? We went from a school district that wanted to make sure everything, to the degree that it is possible, was one where we could brag and sell the concept that we were advanced…When we really looked at our mission, it really wasn't just about being the best 'in.' The question was how we could be the best 'for?' which is our whole reason we moved into the International Baccalaureate…that's what the International Baccalaureate is all about…That's why I say it is very 21st century…It's more about 'what are you going to do about it?'

This then lead into how the MVUSD defines 21st Century Skills. A brand new high school (Murrieta Mesa High School) was built and opened upon the P21 Framework,

> With a great emphasis on career skills that are hidden skills in life skills…but more so, it was also a school built upon getting kids to understand the concept of pursuing a passion…leading a life of not just success, but of significance, leaving a legacy…

In terms of how MVUSD began the process of incorporating the P21 Framework, Mr. Romero states:

> We formed a collaborative community, with roughly 40-50 people, primarily teachers…and community members in higher education and business. We looked

at the P21 Framework, as well as read a number of books in regards to what futurists are talking about…what they are saying are that the workforce needs 21st Century Skills. What we saw was a common theme emerging… One of the common themes…what can be referred to as the re-occurring generation, called the New Hero generation…are kids wanting to serve more, wanting to do things differently than the baby boomers did. On top of that, considering what they are faced with…economic turmoil, terrorism, information…there is a huge need to move away from providing an industrial age mentality and instruction and delivery…we need to go back to investing more in innovation and creativity…more right-brained thinking, as Daniel Pink suggests…in line with right-brained thinking, there is a need for a clear sense of mission and passion for the work that you do, and this will become incredibly more important…So how do you get kids to recognize their passion? How do you get them to understand their mission? That all led to our creation of the white paper…Nine out of the ten recommendations we have been implemented and we are moving to new recommendations...The whole notion has been going back to the mission, To Inspire Every Student To Think, To Learn, To Achieve, (those are the academic), and To Care (the affective), how are you going to measure, how are you going to prove that they are kids of significance…We believe you may not be able to measure it, but you can validate it, and that is what led to the creation of our Exit Interview (one of our graduation requirements)…We believe kids need…strong foundational skills in mathematics and science, and the scientific method, reading and language arts, how history helps us not make the same mistakes of our

> past…also, include a portion of programming to developing and establishing a vision, plan, goals, and how to achieve those goals…another key area are presentation skills…soft skills to enable you to be heard, and hired…we also knew we needed to change our delivery system of curriculum, and our assessment…The greatest obstacle were people being be caught up in the industrial traditional framework – people thought the industrial framework was the way to go…and this is not in line with right brain thinking…

With board approval, implementation committees were created for each recommendation. A few of them included online learning and professional development, dual enrollment with higher education, and exit interviews.

The online learning and professional development committee read a business book that talked about high fidelity/high convenience experiences. That book was Kevin Maney's (2010) book *Trade-Off: The Ever-Present Tension Between Quality and Convenience*. Mr. Romero states: "If they are to survive and thrive in the 21st century, they must define themselves as being either a high fidelity business or a high convenience business." Mr. Romero continued: "The mistake that most public schools make is that they think they can do a high convenience program in a high fidelity manner." MVUSD decided to do both in online learning:

> We provided high convenience learning in an online curriculum for students to recover credits 24-7, on their own time, in an asynchronous environment…at the same time, though, because we don't believe that that curriculum has the rigor, relevance, or relationships we'd like, we decided to also develop a high fidelity program, developed internally by their own teachers…deliver it in a synchronous

> environment…with continual dialogue and discussions. They can also learn 24-7, not because the teacher is available 24-7, but because so much of what they're teaching is going to be posted in digital format, and video, and everything else. As one student said: 'I can pause you now." Things can be watched over and over again…Students want 24-7 access, and to do that, you have to have a blended learning environment. To achieve that, we are developing an internal Learning Management System, which will be both high fidelity and high convenience…an electronic warehouse, to enable teachers to move to digital and mobile environments…record, post, link…and before long, an incredible blended learning environment has been created…that everyone has access to…It is valuable for student learning, as well as professional development…everything is in webinar format and posted…other teachers can access it, and parents can access it, as well…21st century citizens need access to information 24-7.

California has legislation that allows for high school students to take college courses and earned both high school credit and college credit. The MVUSD developed a relationship with the local community college to offer dual enrollment opportunities for their students. Four hundred (400) MVUSD students are taking college courses through the local community college.

The Senior Exit Interview is a four-year process. In eighth grade, the students participate in a career program. As freshmen, the students take an ICT (Information Communication Technology) course. In this freshmen course, students also participate in career exploration and read the book, *7 Habits of Highly Effective Teens*. The students learn how to interface with the Mr. Romero indicates, "the intent of the course is to create

electronic media, and store it." Additionally, the students do some work "to detect their passion." The Senior Exit Handbook can be found in its entirety in Appendix F.

In their sophomore year, students develop an Individual Learning Plan (ILP) with their guidance counselors. The purpose of the ILP is for students to develop goals. In the junior year, students write a reflective essay discussing where they have been, and where they think are going. In the senior year, as part of a culminating learning experience, students present to a panel. They discuss what their mission, passion, what the goals were/are, they discuss how they achieved/did not achieve their goals, as well as discuss the support that has been in place for them. Mr. Romero indicates that this closely mirrors the International Baccalaureate course "Theory of Knowledge." Mr. Romero believes 21st Century students "will need to be able to work in multiple areas…need to set a goal…and have a notion as to how they can achieve that goal, as well as how to determine what support systems need to be put into place."

Although Mr. Romero does not believe that they "have it all figured out," but by "reading what we have read, and through exploring," he believes "we have a fairly decent idea about what a 21st century kid needs." The MVUSD considers itself a "work in progress," and continues to maintain a pulse on the literature and world trends.

The advice that Mr. Romero would give to other school districts that are interested in implementing the P21 Framework would be to immerse oneself in the materials provided by P21. He also suggests that school districts consider beginning regular book groups, as the themes emerge quickly from the literature. Mr. Romero indicated to me via email that the books that were read in the MVUSD were:

- *A Whole New Mind*
- *Saving the World of Work*
- *The World is Flat*
- *The World is Hot, Flat, and Crowded*
- *That Used to Be Us: How America Fell Behind in the World It Invented and How We Can Come Back (MVUSD is currently reading)*
- *Tribal Leadership*
- *5 Dysfunctions of Teams (read as a lead up to working in the collaborative)*
- *The 2020 Workplace*
- *Great Work, Great Career*
- *Predictable Results in Unpredictable Times*
- *The Talent Code*
- *Buyology*
- *The Fourth Turning (and other work by Strauss and Howe)*
- *Drive*
- *Outliers*
- *Tipping Point*

Most importantly, he indicates that it is important to stay clear with the vision and mission. "It is the guidepost," indicates Mr. Romero. Additionally,

> For people to think that education hasn't changed…it has changed dramatically, but, what is interesting is the speed at which things are changing frequently…if you are going to continue to deliver an education, the same program the way you have always done things, and you are just average in what you do, you're an

> average teacher delivering an average curriculum…No one is going to come to you, because people now have choices in the ability to go elsewhere…As things become more blended, more virtual, there will come a time when a student from Pennsylvania who really wants to get something good could come to California, or vice versa…The question everyone here has had to ask themselves is: 'What value do we have that's going to make people want to come to us?'

Renate Jefferson – Murrieta Valley High School – Principal

Ms. Renate Jefferson has twelve years teaching experience as an English and German teacher, as well as seventeen years administrative experience having served as Child and Welfare Administrator, Assistant Principal, Principal of Adult School, Continuation High School and Murrieta Valley High School (MVHS). This is her tenth year as Principal of MVHS. She has been serving the MVSD since 1991.

Ms. Jefferson describes her leadership style as collaborative:

> I enjoy collaborative leadership with a team's input and ideas. I believe that the people you trust need autonomy. We work together as a team at MVHS and inform each other of what is going on. I am responsible for all of our decisions and take overall responsibility. Often, I just need to make a decision, but I try to involve the team as much as I can.

Ms. Jefferson referenced the MVSD mission statement: "To inspire every student to think, to learn, to achieve, to care," and continued:

> While we are all very concerned about academic achievement and motivate each student to do his/her very best, we also emphasize service learning, volunteer work (40 hours required for graduation), the 40 Developmental Assets for

children, and having a huge heart/empathy for children. Our school culture reflects that belief. We are a very caring school with students reaching out to others who need a helping hand. We have many service clubs, conduct lots of activities that help others in need, and we are very open and accepting of all students from all walks of life. Our students feel comfortable with each other; newcomers are welcomed through 'New Kids on the Block' program, teachers are very friendly and it is easy to get integrated. Facilities are welcoming and our students feel comfortable. Expectations are high and we emphasize post high school preparation. A very caring, supportive staff is at the center of student life.

Another facet central to student life is the commitment to each student having a plan post-graduation:

At the heart of 21st Century Skills is preparation to the highest level possible – students must have a post high school education plan. Our Mission Statement says, 'The mission of MVHS is to inspire and empower all students to grow academically, emotionally and socially, in order to become productive citizens who serve others and meet the challenges of the 21st century.' Under our 'Expected School-Wide Learning Results,' (see Figure 7) we emphasize that our students become responsible 21st century citizens who think globally and understand, appreciate, and respect other cultures; improve the quality of life in their school and community; have compassion for and contribute to the success of others; adapt to a constantly changing world; balance social, mental and physical wellness and access and use information and technology to enhance lifelong learning. Upon graduation, our seniors go through an exit interview where they

reflect on their learning, reflect how they have achieved (and will continue to work towards) the learning outcome stated above, share their academic achievements and resume with the panel, and share their post high school plans. How will they make a difference in their community, what will they study, how will they pay back? They use technology for their presentation.

In order for students to develop the skills that will be required to be successful in the global economy, the development of skills must also focus on the practical arts:

We have a number of practical arts classes that many students use as an entry level: Auto technology, drafting (manual and Computer Aided Drafting), engineering, robotics, Certified Nursing Assistant, TV Digital Production, Media, Computer classes, Photo levels I,II, III, Virtual Enterprise, Sports Marketing, Multi-Media, Law, Forensics, Medical Assisting and others.

In terms of developing skills within the curriculum, Ms. Jefferson states:

We stress the ability to think critically and engage students with challenges that require evaluation, synthesis, application, and analysis. We are developing a higher focus on functional reading/non fiction reading and are currently revising our "Themes in American Literature" and "British Literature" to include more non-fiction writing, practical application of English grammar, business writing and preparation to master the placement testing for the Community College. These English classes are offered in addition to International Baccalaureate (IB) English, Advanced Placement English, and Dual Enrollment (Community College credit English classes).

In terms of balancing learning outcomes, content knowledge and 21st century skills, Ms. Jefferson notes:

> Everyone is on board with the learning outcomes. Mastery of core subjects is essential for all students. Through the IB program, we have developed a higher emphasis on international studies and global awareness. Through Virtual Enterprise and Robotics, which competes internationally, and sports marketing, students have a vision for entrepreneurial literacy. We stress creativity and the ability to solve a problem. Civic literacy is addressed in the Government classes. Some classes are very strong on critical thinking and problem solving; all of them stress communication and collaboration. Our Computer/Career class became an Information Communication Technology class two years ago, but we also include Covey's *7 Habits of Highly Effective People* to address the soft skills everyone needs. We believe that flexibility and adaptability are skills everyone needs to develop in today's world. Gone are the days when you entered a company and stayed there for the next thirty-five years (and took great pride in that loyalty). Today's employees cannot count on that steady vision but need to be self-directed, interview as a team, be self-accountable, and show leadership and responsibility. All of our parents have had to undergo transformations and have also shared with their students the need for these tools. More than thinking skills are required – and these life skills will carry the student far. We have built different components into our curriculum to address the needs. We included more career/life skills into the curriculum and changed our computer career class to include career literacy instructional units. The course was becoming archaic and

ICT focuses on entrepreneurial skills, a range of functional and critical thinking skills, and technology literacy. We had a series of meetings with our computer/career teachers to establish the need and research the skills future employers were looking for. We worked with the Manufacturing Council and Career Technical Industry Reps through the Community College in identifying the skills they were looking for in workers.

In terms of moving forward, and determining what is to come, Ms. Jefferson indicates:

"We work with community colleges and involve industry and employers to keep current on what they are looking for in prospective employees. It is an ongoing project – we keep refining and changing according to needs."

Mary Walters – Murrieta Mesa High School - Principal

Ms. Mary Walters has been in education since 1986. She started her career as a mathematics teacher. She came to MVUSD in 1991 as a mathematics teacher until 1996, at which point she became an Assistant Principal. She was a Deputy Principal until 2008, at which point she was named as Principal to open Murrieta Mesa High School (MMHS).

Ms. Walters characterizes herself as a collaborative leader, as she does not believe that "she has all of the answers." She believes "very strongly in having a team," and she recognizes that she "is a member of that team." She "enjoys being very active with the kids," and "likes being involved." She considers herself "very student-centered." She also serves as the senior class administrator, in addition to her high school principal duties.

Ms. Walters was the Principal who opened MMHS. She indicates that it was a "huge, huge undertaking." The opportunity to create something from scratch was wonderful. She utilized her collaborative leadership through the creation of committees to address certain aspects of the new school. For example, the Aesthetics Committee selected the school's quote: *"Coming together is a beginning; staying together is progress; and working together is success,"* by Henry Ford. She set the parameters, but found that everyone in the school wanted to become involved in the creation of the overall image of the new school.

A school-wide goal is that every student become involved in at least one activity. So to model that for students, she encouraged the faculty and staff to do the same: "We need to be involved…sponsor a club, coach a sport, something." Relationships could then be developed outside of the classroom. The school-wide motto is: "Pursue Your Passion…Leave a Legacy." She indicated that the school's guiding principles are best reflected in their acronym: PRIDE – purpose, responsibility, integrity, duty, excellence. This is fully embedded throughout the school, and it's activities. Ms. Walters also indicates that goals are selected each year that are shared with both faculty and students: "They are not my goals, they are our goals." Parents were also included. Ms. Walters conducted several parent meetings, and met with the Rotary, as well. Ms. Walters indicated that approximately one-third of the student population are transfers either within or outside of the district. "That says a lot about what the community thinks of us." She also noted: "Parent volunteers are on our campus on a daily basis…we could not have opened this school without them."

In terms of 21st century skills, Ms. Walters wants her students to be:

> technologically literate, and prepared to participate in a global economy…their life is going to be so much different than ours…We were built on the model of 21st century skills…we house the Chamber of Commerce on our campus…we are the only high school in the nation that does that. The purpose of that is to have internship opportunities for our students out in the community…I would like to see an increase in our dual enrollment options, as well. We also have college and career pathways (engineering, medical, liberal studies, business, culinary, visual performing arts)…what we are trying to do is have them find their passion, and prepare them for the workforce…Also, a reach for us was to be able to teach Chinese. We are the only school in Riverside County that offers Chinese…if they can speak Chinese, they will have business opportunities that other kids just will not have…I would also like to be able to offer Hindi or Arabic at some point.

Ms. Walters indicated that her husband works for Hewlett-Packard, and that she very much believes that 21st century skills are essential:

> If we don't embrace these 21st century skills, and focus in on soft skills, and enable them
>
> to be problem-solvers, and able to work in an international economy, our kids are not going to make it, and we are not going to make it as a country…we need to embrace technology, and, if we don't, the kids will fail miserably, and we will fail miserably as a country…We need to get on this and embrace it and move forward. If we don't, we are doing our kids a disservice.

Ms. Walters also referenced the Hewlett-Packard meeting with engineers from Singapore, Shanghai, and Oregon that Mr. Romero referenced earlier:

> We got a good idea what is needed in other countries…not only academically, but what type of soft skills are needed…we learned what is lacking and what is needed, and that is critical…we talk to our students about going beyond what you are familiar…you need to expand your knowledge base.

Ms. Walters is proud of how much they have accomplished from their original goals, and maintains a commitment to the school's mission: "relentless and unwavering commitment to our students." She believes that it is her responsibility to keep her staff "focused on where we are going." She additionally maintains a relentless and unwavering commitment to the vision because "you can get so caught up in the day in and day out stuff. My focus is to remain focused on what is important."

Data Analysis

Theoretical Lens:

Cresswell (2003) asserts that "when qualitative researchers use a theoretical lens, they can form interpretations that call for action agendas for reform and change" (p. 195). The theoretical lens through which this case was studied, analyzed, and described is Adaptive Leadership Theory.

Adaptive leadership creates the conditions wherein what is essential is distinguished from what is expendable and innovate in ways with others that synthesize those essentials, while simultaneously identifying and solving complex problems. The goal for leaders, therefore, is to develop an adaptability that enables the organization to survive, adapt, and thrive through honoring the best from its history, and taking that into the future to create new realities (Heifetz, 1994). It is based upon the viewpoint that an organization is a complex adaptive system that adapts and changes as it continues to

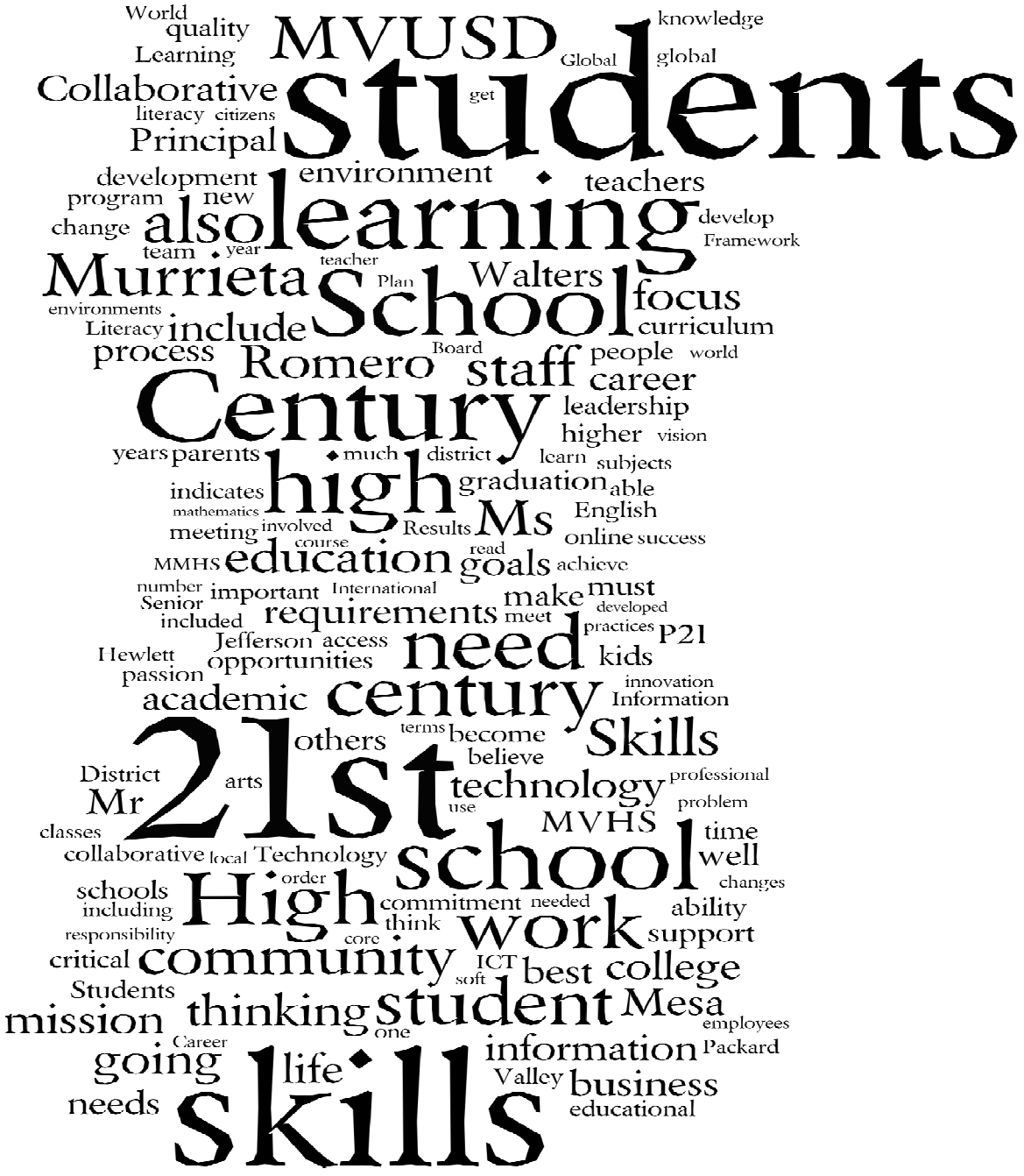
evolve. This theory is rooted in evolutionary biology, situated upon the following adaptive considerations: 1) The ability to thrive, 2) the ability to determine what is useful and what is expendable, 3) adaptation occurs through experimentation, 4) adaptation requires diversity, 5) adaptations displace, re-regulate, and rearrange, and 6) adaptation takes time (Heifetz, Linsky, & Grashow, 2009). Additionally, Jones, Shannon, and Weigel (2009) of the International Center for Leadership in Education have applied adaptive leadership principles to schools, referred by them as Quadrant D Leadership, which broadens and deepens the definition of leadership we have come to understand to include the many staff and students as leaders who share a common vision. Quadrant D Leadership is the collaborative responsibility for taking action to reach future-oriented goals while meeting the intellectual, emotional, and physical needs of each student during the process of change. Quadrant D leaders are:

- Flexible to adapt to the school environment
- Able to analyze the leadership characteristics of their school
- Knowledgeable about where a school community is and where it needs to move to
- Able to develop a vision about the future needs of students and deliver a coherent message so stakeholders can talk the same language about leadership in the school
- Able to work with people in a manner that ignites their passions, talents, and desire to attain that shared vision. (Jones, Shannon, & Weigel, 2009, p. 1)

Emergent Themes:

Utilizing the theoretical lens of Adaptive Leadership, three overarching themes emerged from the data: 1) Motivation for Change, and subsequent Student Needs, 2) Mission, and 3) Collaboration, which will be discussed in detail in Chapter 5. An interesting application that is available is something called a "wordle." Wordles can be created at http://www.wordle.net free of charge. Not only are they visually appealing, but they serve a very unique purpose: to demonstrate the most frequently used words in a large body of text. The larger the word, the more frequently it is used. The wordle, however, cannot determine the context of word use. I have created a wordle utilizing all of the text of the document review and the interviews (See Figure 8).

Figure 8:


World
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CHAPTER V

DISCUSSION

Introduction

This descriptive case study illuminated the process through which the MVUSD incorporated the P21 Framework into curricula. More than that, however, the data revealed three overarching thematic mindsets, demonstrated through adaptive leadership behaviors, that were embedded within the change process: 1) motivation for change and subsequent student needs, 2) mission, and 3) collaboration. The first emergent theme answered Research Question 1, and the second and third emergent theme answered Research Question 2. The data are presented through the lens of Adaptive Leadership Theory.

Research Questions

The research questions that guided this study were:

1) What needed to be changed in the school(s) that led to the incorporation of the P21 framework?
2) How did the change process occur in order to incorporate 21st Century Skills?

Research Question 1:

The first overarching theme, motivation for change and subsequent student needs, answers Research Question 1 completely. The motivation for change came from within the organization, in response to what the global workforce is requiring. MVUSD also utilized the recommendations from literature, as well as from business and higher education. The motivation for change did not come from a federal or state mandate. The participants shared an almost verbatim response: the world has changed. Therefore, the

expectations and experiences for students must change. Dr. Stan Scheer, Superintendent of MVUSD, stated in his Superintendent's Message on the MVUSD website:

> …Academically, more is demanded of our students. With the ever-changing nature of the world and workforce, not only must today's graduates be proficient in core academic subjects, they need to be critical thinkers, problem solvers and effective communicators. They need global awareness, financial, economic and civic literacy. These 21st century skills are in demand for all graduates, no matter what their future holds…

Mr. Romero stated:

> For people to think that world hasn't changed…it has changed dramatically, but, what is interesting is the speed at which things are changing frequently…if you are going to continue to deliver an education, the same program the way you have always done things, and you are just average in what you do, you're an average teacher delivering an average curriculum…No one is going to come to you, because people now have choices in the ability to go elsewhere…The question everyone here has had to ask themselves is: 'What value do we have that's going to make people want to come to us?'

In terms of addressing the subsequent identification of student needs, Mr. Romero's goal is "getting kids to understand the concept of pursuing a passion…leading a life of not just success, but of significance, leaving a legacy…"

Ms. Jefferson stated:

> Under our 'Expected School-Wide Learning Results,' (see Figure 7) we emphasize that our students become responsible 21st century citizens who think globally and understand, appreciate, and respect other cultures; improve the quality of life in their school and community; have compassion for and contribute to the success of others; adapt to a constantly changing world; balance social, mental and physical wellness and access and use information and technology to enhance lifelong learning.

Ms. Walters wants her students to be "technologically literate, and prepared to participate in a global economy…their life is going to be so much different than ours…" She continues:

> If we don't embrace these 21st century skills, and focus in on soft skills, and enable them to be problem-solvers, and able to work in an international economy, our kids are not going to make it, and we are not going to make it as a country…we need to embrace technology, and, if we don't, the kids will fail miserably, and we will fail miserably as a country…We need to get on this and embrace it and move forward. If we don't, we are doing our kids a disservice.

From an Adaptive Leadership perspective, MVSD engaged in the following behaviors: 1) they were flexible in adapting to the (world) environment, 2) knowledgeable about where a school community is and where it needs to move to, and 3) able to develop a vision about the future needs of students and deliver a coherent message so stakeholders can talk the same language about leadership in the school (Jones, Shannon, & Weigel, 2009, p. 1).

Research Question 2:

The second overarching theme that emerged was the importance of mission. Mr. Guy Romero states: "It is the guidepost." He hopes that students can define their passion and mission: "The whole notion has been going back to the (district) mission, To Inspire Every Student To Think, To Learn, To Achieve, (those are the academic), and To Care (the affective)."

He indicated that there was a high turnover in Central Office. Once the district leadership was re-established, they began a reflective process regarding their purpose. MVUSD's old mission was: "Academic Success for All Students." Mr. Romero indicated that they "would not be doing what they are doing if their mission was still 'Academic Success for All Students.'"

Mr. Romero elaborates:

> We really began to wonder what academic success was all about…What about the affect? What about caring?…When we really looked at our mission, it really wasn't just about being the best 'in.' The question was how we could be the best 'for?'

Ms. Jefferson indicates that the mission of MVHS is:

> To inspire and empower all students to grow academically, emotionally and socially, in order to become productive citizens who serve others and meet the challenges of the 21st century.'

She describes how the mission is lived:

> Under our 'Expected School-Wide Learning Results,' (See Figure 7) we emphasize that our students become responsible 21st century citizens who think

> globally and understand, appreciate, and respect other cultures; improve the quality of life in their school and community; have compassion for and contribute to the success of others; adapt to a constantly changing world; balance social, mental and physical wellness and access and use information and technology to enhance lifelong learning.

Ms. Walters indicates that the school's motto is "Pursue Your Passion…Leave a Legacy." The guiding principles of MMHS are best reflected in their acronym: PRIDE – purpose, responsibility, integrity, duty, excellence. This is fully embedded throughout the school, and it's activities. The mission of MMHS maintains a "relentless and unwavering commitment to our students." She believes that it is her responsibility to keep her staff "focused on where we are going." She additionally maintains a relentless and unwavering commitment to the vision because "you can get so caught up in the day in and day out stuff. My focus is to remain focused on what is important."

From an Adaptive Leadership perspective, MVSD engaged in the following behaviors: 1) they have demonstrated the ability to determine what is useful and what is expendable (Heifetz, Linsky, & Grashow, 2009), and 2) they were flexible in adapting to the (world) environment (Jones, Shannon, & Weigel, 2009, p. 1)

The third theme that emerged from the data is collaboration. While Mr. Romero described himself as a servant leader, both Ms. Jefferson and Ms. Walters described themselves as collaborative leaders. Ms. Jefferson "enjoys collaborative leadership with a team's input and ideas." She believes that "the people you trust need autonomy." She indicated: "We work together as a team at MVHS and inform each other of what is going on." Ms. Walters does not believe that "she has all of the answers." She believes

"very strongly in having a team," and she recognizes that she "is a member of that team."

The data strongly suggest that the MVUSD could not have possibly embedded 21st century skills within the curriculum without collaboration. The re-visioning process required collaboration. Determining emergent themes from current literature on world trends to enable district leadership to set the direction for embedding 21st century skills into the curricula required collaboration. The most obvious example of collaboration in the district was the 21st Century High School Collaborative that sought to "create a 21st century blueprint for the design, organization, and management for high schools with a relentless focus on the results that matter for the 21st Century student." Stakeholders from various groups were a part of this process. The district collaborated with business professionals at Hewlett-Packard to determine what skills students need. The group collaborated to determine the curricular direction of the creation of career "Pathways" for the new Murrieta Mesa High School. The district developed a partnership with the Chamber of Commerce, which is housed on the MMHS campus. This collaborative partnership allows students to participate in internships. A collaborative partnership was also established with a local community college to enable students to have dual enrollment options. Based upon collaborative review, the MVUSD 1) revised the current Computer Careers course and created a new Information, Communication, and Technology (ICT) course, 2) reduced the graduation requirement to 230 credits while maintaining the seven period schedule to provide students with greater flexibility and options, 3) offer online learning opportunities for students, and 4) added an Exit Interview graduation requirement beginning with the class of 2013 (See Appendix F).

The International Center for Leadership in Education's Quadrant D (Adaptive) Leadership is defined as "the collaborative responsibility for taking action to reach future-oriented goals while meeting the intellectual, emotional, and physical needs of each student during the process of change" (Jones, Shannon, & Weigel, 2009, p. 1). Through MVUSD's collaborative efforts, all of the attributes of Adaptive Leadership have been demonstrated through leadership behaviors: 1) Flexible to adapt to the school environment, 2) Able to analyze the leadership characteristics of their school, 3) Knowledgeable about where a school community is and where it needs to move to, 4) Able to develop a vision about the future needs of students and deliver a coherent message so stakeholders can talk the same language about leadership in the school, 5) Able to work with people in a manner that ignites their passions, talents, and desire to attain that shared vision (Jones, Shannon, & Weigel, 2009, p. 1). Furthermore, MVUSD recognized that meaningful change would take time, and was not hesitant to experiment, displace, re-regulate, and re-arrange. Through the diversity of thought and collaboration, the MVUSD has developed the ability to thrive (Heifetz, Linsky, & Grashow, 2009).

Limitations of the Study

This descriptive case study provided an in-depth discovery of why and how one school district embedded the P21 Framework into their high school curricula. The fact that the study only focused on the high school level could be perceived as a limitation. Although the intent of qualitative research is not to generalize, this could potentially be viewed as a limitation from within the scholarly community. However, it must also be noted that what works in one district may not work in another (Daggett & Jones, 2008). An additional limitation is that this study was bound by selecting a site that utilized the

P21 Framework. It is a possibility that schools can embed 21st century skills into their curricula without necessarily utilizing the P21 Framework.

Implications for Future Research

Because this descriptive case study is an initial study of the implementation of the P21 Framework, there are many opportunities to explore other implementation efforts across the country, as well as internationally. Furthermore, there are also opportunities in exploring how 21st century skills are embedded into the curricula without necessarily utilizing the P21 Framework. As this study focused only on the P21 Framework implementation efforts at the high school level, it would be interesting to see how the change process of embedding 21st century skills into the curricula evolved at the elementary and middle levels, as well. Additionally, research opportunities exist in each skill area of 21st Century Skills. Multiple respondent categories could be included in future studies related to 21st century skill implementation, as well as in the following possible areas of future research.

Since American schools have not radically changed the structure within which students are educated to provide learning experiences relevant to life after formal education, we are faced with the very real possibility that America's students will continue to lag behind other countries in this global economy (NCEE, 2007; Daggett & Pedinotti, 2005; Schwahn & Spady, 1998; and Zinser, 2003). Research opportunities exist not only for what and how schools are attempting to meet this need, but also how they are not. Furthermore, as quickly as new technology becomes obsolete, so do workforce needs. Many opportunities exist to research workforce trends, as well as how schools are or are not addressing those needs.

Another area of potential research is that of the 21st century learner. One of the foundational reasons for a student's perception of school as being boring is that they need to "power down" when they enter school as they are unable to tap into the technologies that are available to them outside of school (Taranto & Abbondanza, 2009). Many opportunities exist with the impact of technology on learning. Specific areas could include, but are not limited to, the impact of technology on student achievement and motivation.

Another foundational reason for a student's lack of interest in school is a lack of students' intrinsic motivation (Schwahn & McGarvey, 2011), occurring "when the work itself stimulates and compels an individual to stay with the task because the task by itself is inherently fun and enjoyable" (Christensen, Horn & Johnson, p. 7). To create a school culture that is more intrinsically motivating occurs when customized education is geared toward specific learning styles (Christensen, Horn & Johnson, 2008; Gardner, 2011; and Schwahn & McGarvey, 2011). Research opportunities exist in the area of learning styles and mass-customization. These studies could investigate the impact on motivation and overall student achievement.

One example of a shift that has gained momentum over the past decade is online learning. The number of students registering for online classes has grown exponentially (Adkins, 2009; Picciano & Seaman, 2009; and Watson, Gemin, Ryan, & Wicks, 2009), and is predicted to increase steadily (Christensen, Horn, & Johnson, 2008; and Adkins, 2009). Zucker (2008) suggests: "the nature of technology used in schools has changed dramatically in the past decade…schools are beginning to transform themselves into the more modern, effective, responsive institutions that our society needs" (p. ix). MVUSD

utilizes online learning, and is hopeful that all students take at least one online course. Many research opportunities exist with how schools are implementing online learning opportunities for students, as well as the resultant effect of such opportunities. Another possible research area is out-of-school program providers.

In a culture where the information that is relevant today is obsolete tomorrow, students need to learn *how* to learn, not what to learn. They need to be taught *how* to think, not what to think. Learning how to learn and learning how to embrace change are the critical skills that will enable an individual to thrive in any situation. MVUSD also utilized in this study has formed Individual Learning Plans (ILPs) for each high school student. To study the impact of ILPs would offer a unique opportunity to study how student-driven actions, supported and documented by an ILP, impact motivation, engagement, and overall student achievement.

Finally, two areas that are interwoven are leadership and how that leadership nurtured and supported overall organizational change and innovation. Since there are many different leadership styles, it would be interesting to see how each leadership style nurtured and supported a change process in schools, as well as the overall impact of the change process upon the organizational goals.

> To gain a real advantage, you have to challenge old ways of thinking and the basic assumptions about how the game is played. You need to break out of your fixed mind-set…None of us can afford to subscribe to the idea that 'the way it's always been done' should simply be perpetuated. We must break away from the accepted, the taken-for-granted, the never-questioned, and the conventional. These days we have no choice. (Keigel & Patler, 1991, p. 101-102)

Implications for Practice

The academic literature is rich with the rationale for change in America's public schools. It is our responsibility to prepare our young people to participate fully and competitively in a rapidly changing global society (ASCD, 2008). "Our nation has embarked on a commitment to educate every child. No nation has ever sought to do that. The societal stakes in improving our schools are high" (Christensen, Horn & Johnson, 2008, p. vi). Historically, the United States restructured its education system to meet the demands of the times. In 1893, as the United States was moving from an Agrarian to an Industrial economy, the Committee of Ten conceptualized how American schools should be structured to meet the demands of the time. Consequently, the United States became "the best-educated and most innovative nation in the world. Our accomplishments throughout the 20th century were historic and world-changing, and the United States took tremendous pride in its innovative spirit" (Daggett & Pedinotti, 2005, p. 4).

Seventy years later, the launch of Sputnik allowed for meaningful debate on the inadequacy of American education. The result was a push for more math and science, and the hope that students would be taught how to think, and not simply how to regurgitate information.

Two decades later, the 1983 report of the National Commission on Excellence in Education, *A Nation at Risk*, condemned the present status of American education: "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves." This report offered "a devastating assessment of the educational *status quo* and a set of recommendations to right it"

(Seeley, 2009, p. 48). The report asserts that we were condoning "a rising tide of mediocrity that threatens our very future as a nation and as a people."

Almost twenty years later, there is still a lot of conversation, and very little action in modernizing American education. The most severe implication of practice is that we must change to meet the demands of the 21st century to enable our students to fully participate in the global economy. To not change could be considered educational malpractice, which has long-reaching and sustained societal implications. Coming from someone who has been a part of a change process to incorporate 21st Century Skills, Mr. Romero recommends that administration and faculty study the literature through regular book groups, as well as to research the trends in the global workforce. He also recommends compartmentalizing the P21 Framework to determine where such skills already exist in the curriculum, and then determining what actions can be taken to effectively prepare them for their future.

In order for this goal to be realized, Giles and Hargreaves (2006) suggest students are the recipients of positive change when everyone within the organization shares a clear vision and mission. As Mr. Romero suggested, the change to incorporate 21st century skills would not have occurred if the school district kept its old mission. By changing direction, and being very clear what is in the best interest of students, now and in the future, the decisions and subsequent actions just made sense.

Professional learning communities, which keep faculty engaged and supported in the growth process, have also been found to support a positive change process, particularly at this site. Without being immersed in the information and having the ability to communicate with other professionals, many positive change efforts could stall,

thus preventing continuity in the change process to ultimately best serve students. In addition, our present structure supports teachers teaching in silos; that is, teachers are engrossed in their individual content areas, ironically modeling specialization in a time where fluidness of thought and learning new things outside an area of expertise are needed. Due to the structure of the time schedule of the day, very little meaningful time is allotted for collaborative thought, innovation, entrepreneurism, and risk-taking for either the teacher or the student. Daggett (n.d.) concurs: "our schools remain deeply entrenched in teaching discrete subjects, while the real world requires the ability to apply interdisciplinary knowledge. Students need to be taught how to access, evaluate, and synthesize information. Yet, schools typically have no structure that allows teachers to do interdisciplinary planning" (p. 3). In order for the MVUSD to sustain the change of incorporating 21st century skills, they had to collaborate, which required scheduled time on a regular basis.

It is imperative that schools model the times. According to an AMA survey (2010), eighty percent (80%) of executives believe that embedding 21st century skills would ensure that students are better prepared to enter the workforce. 21st century skills are not just for students. Leaders and teachers should intentionally create opportunities for professional and student learning that are relevant. Through this learning, as well as subsequent change, it is realized that students can and will learn in an environment, wherein their teachers care for them as individual students and fellow humans, hold a belief in their students' ability to succeed, while holding them accountable to high expectations, and providing relevant learning experiences to benefit them now and in the future.

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APPENDIX A

Partnership for 21st Century Skills Framework for 21st Century Learning

Partnership for 21st Century Skills Framework for 21st Century Learning:

The Framework for 21st Century Learning presents a holistic view of 21st century teaching and learning that combines a discrete focus on 21st century student outcomes (a blending of specific skills, content knowledge, expertise, and literacies) with innovative support systems to help students master the multi-dimensional abilities required of them in the 21st century.

The key elements of 21st century learning are represented in the graphic in Figure 2 and descriptions follow below. The graphic represents both 21st century skills ***student outcomes*** (as represented by the arches of the rainbow) and 21st century skills ***support systems*** (as represented by the pools at the bottom).

The 21st century **student outcomes** identified in the framework are:

Core Subjects:

- English, reading or language arts
- Mathematics
- Science
- History
- Geography
- Government and civics
- Economics
- World languages
- The arts

In addition to these subjects, we believe schools must move to include not only a focus on mastery of core subjects, but also promote understanding of academic content at much higher levels by weaving **21st century interdisciplinary themes** into core subjects:

Global Awareness

- Using 21st century skills to understand and address global issues
- Learning from and working collaboratively with individuals representing diverse cultures, religions and lifestyles in a spirit of mutual respect and open dialogue in personal, work and community contexts
- Understanding other nations and cultures, including the use of non-English languages

Financial, Economic, Business and Entrepreneurial Literacy

- Knowing how to make appropriate personal economic choices
- Understanding the role of the economy in society
- Using entrepreneurial skills to enhance workplace productivity and career options

Civic Literacy

- Participating effectively in civic life through knowing how to stay informed and understanding governmental processes
- Exercising the rights and obligations of citizenship at local, state, national and global levels
- Understanding the local and global implications of civic decisions

Health Literacy

- Obtaining, interpreting and understanding basic health information and

services and using such information and services in ways that enhance health

- Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction
- Using available information to make appropriate health-related decisions
- Establishing and monitoring personal and family health goals
- Understanding national and international public health and safety issues

Environmental Literacy

- Demonstrate knowledge and understanding of the environment and the circumstances and conditions affecting it, particularly as relates to air, climate, land, food, energy, water and ecosystems
- Demonstrate knowledge and understanding of society's impact on the natural world (e.g., population growth, population development, resource consumption rate, etc.)
- Investigate and analyze environmental issues, and make accurate conclusions about effective solutions
- Take individual and collective action towards addressing environmental challenges (e.g., participating in global actions, designing solutions that inspire action on environmental issues)

LEARNING AND INNOVATION SKILLS

Learning and innovation skills increasingly are being recognized as those that separate students who are prepared for a more and more complex life and work environments in the 21st century, and those who are not. A focus on creativity, critical thinking, communication and collaboration is essential to prepare students for the future.

CREATIVITY AND INNOVATION

Think Creatively

- Use a wide range of idea creation techniques (such as brainstorming)
- Create new and worthwhile ideas (both incremental and radical concepts)
- Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts

Work Creatively with Others

- Develop, implement and communicate new ideas to others effectively
- Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work
- Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas
- View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes

Implement Innovations

- Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur

CRITICAL THINKING AND PROBLEM SOLVING

Reason Effectively

- Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation

Use Systems Thinking

- Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems

Make Judgments and Decisions

- Effectively analyze and evaluate evidence, arguments, claims and beliefs
- Analyze and evaluate major alternative points of view
- Synthesize and make connections between information and arguments
- Interpret information and draw conclusions based on the best analysis
- Reflect critically on learning experiences and processes

Solve Problems

- Solve different kinds of non-familiar problems in both conventional and innovative ways
- Identify and ask significant questions that clarify various points of view and lead to better solutions

COMMUNICATION AND COLLABORATION

Communicate Clearly

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts
- Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions
- Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade)
- Utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact
- Communicate effectively in diverse environments (including multi-lingual)

Collaborate with Others

- Demonstrate ability to work effectively and respectfully with diverse teams
- Exercise flexibility and willingness to be helpful in making necessary

compromises to accomplish a common goal

- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member

INFORMATION, MEDIA AND TECHNOLOGY SKILLS

People in the 21st century live in a technology and media-suffused environment, marked by various characteristics, including: 1) access to an abundance of information, 2) rapid changes in technology tools, and 3) the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century, citizens and workers must be able to exhibit a range of functional and critical thinking skills related to information, media and technology.

INFORMATION LITERACY

Access and Evaluate Information

- Access information efficiently (time) and effectively (sources)
- Evaluate information critically and competently

Use and Manage Information

- Use information accurately and creatively for the issue or problem at hand
- Manage the flow of information from a wide variety of sources
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information

MEDIA LITERACY

Analyze Media

- Understand both how and why media messages are constructed, and for what purposes
- Examine how individuals interpret messages differently, how values and

points of view are included or excluded, and how media can influence beliefs and behaviors

- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media

Create Media Products

- Understand and utilize the most appropriate media creation tools, characteristics and conventions
- Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments

Manage Goals and Time

- Set goals with tangible and intangible success criteria
- Balance tactical (short-term) and strategic (long-term) goals
- Utilize time and manage workload efficiently

Work Independently

- Monitor, define, prioritize and complete tasks without direct oversight

Be Self-directed Learners

- Go beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
- Demonstrate initiative to advance skill levels towards a professional level
- Demonstrate commitment to learning as a lifelong process
- Reflect critically on past experiences in order to inform future progress

SOCIAL AND CROSS-CULTURAL SKILLS

Interact Effectively with Others

- Know when it is appropriate to listen and when to speak
- Conduct themselves in a respectable, professional manner

Work Effectively in Diverse Teams

- Respect cultural differences and work effectively with people from a range of social and cultural backgrounds
- Respond open-mindedly to different ideas and values
- Leverage social and cultural differences to create new ideas and increase both innovation and quality of work

PRODUCTIVITY AND ACCOUNTABILITY

Manage Projects

- Set and meet goals, even in the face of obstacles and competing pressures
- Prioritize, plan and manage work to achieve the intended result

Produce Results

Demonstrate additional attributes associated with producing high quality products including the abilities to:

- Work positively and ethically
- Manage time and projects effectively
- Multi-task
- Participate actively, as well as be reliable and punctual
- Present oneself professionally and with proper etiquette
- Collaborate and cooperate effectively with teams
- Respect and appreciate team diversity
- Be accountable for results

LEADERSHIP AND RESPONSIBILITY

Guide and Lead Others

- Use interpersonal and problem-solving skills to influence and guide others toward a goal
- Leverage strengths of others to accomplish a common goal
- Inspire others to reach their very best via example and selflessness
- Demonstrate integrity and ethical behavior in using influence and power

Be Responsible to Others

- Act responsibly with the interests of the larger community in mind

The 21st Century **Support Systems** include the following:

The elements described below are the critical systems necessary to ensure student mastery of 21st century skills. 21st century standards, assessments, curriculum, instruction, professional development and learning environments must be aligned to produce a support system that produces 21st century outcomes for today's students.

21st Century Standards

- Focus on 21st century skills, content knowledge and expertise
- Build understanding across and among core subjects as well as 21st century interdisciplinary themes
- Emphasize deep understanding rather than shallow knowledge
- Engage students with the real world data, tools and experts they will encounter in college, on the job, and in life; students learn best when actively engaged in solving meaningful problems
- Allow for multiple measures of mastery

Assessment of 21st Century Skills

- Supports a balance of assessments, including high-quality standardized testing along with effective formative and summative classroom assessments
- Emphasizes useful feedback on student performance that is embedded into everyday learning
- Requires a balance of technology-enhanced, formative and summative assessments that measure student mastery of 21st century skills
- Enables development of portfolios of student work that demonstrate mastery of 21st century skills to educators and prospective employers
- Enables a balanced portfolio of measures to assess the educational system's effectiveness in reaching high levels of student competency in 21st century skills

21st Century Curriculum and Instruction

- Teaches 21st century skills discretely in the context of core subjects and 21st century interdisciplinary themes
- Focuses on providing opportunities for applying 21st century skills across content areas and for a competency-based approach to learning
- Enables innovative learning methods that integrate the use of supportive technologies, inquiry- and problem-based approaches and higher order thinking skills
- Encourages the integration of community resources beyond school walls

21st Century Professional Development

- Highlights ways teachers can seize opportunities for integrating 21st century

skills, tools and teaching strategies into their classroom practice — and help them identify what activities they can replace/de-emphasize

- Balances direct instruction with project-oriented teaching methods
- Illustrates how a deeper understanding of subject matter can actually enhance problem-solving, critical thinking, and other 21st century skills
- Enables 21st century professional learning communities for teachers that model the kinds of classroom learning that best promotes 21st century skills for students
- Cultivates teachers' ability to identify students' particular learning styles, intelligences, strengths and weaknesses
- Helps teachers develop their abilities to use various strategies (such as formative assessments) to reach diverse students and create environments that support differentiated teaching and learning
- Supports the continuous evaluation of students' 21st century skills development
- Encourages knowledge sharing among communities of practitioners, using face-to-face, virtual and blended communications
- Uses a scalable and sustainable model of professional development

21st Century Learning Environments

- Create learning practices, human support and physical environments that will support the teaching and learning of 21st century skill outcomes
- Support professional learning communities that enable educators to collaborate, share best practices and integrate 21st century skills into

classroom practice

- Enable students to learn in relevant, real world 21st century contexts (e.g., through project-based or other applied work)
- Allow equitable access to quality learning tools, technologies and resources
- Provide 21st century architectural and interior designs for group, team and individual learning
- Support expanded community and international involvement in learning, both face-to-face and online

Retrieved from: http://www.p21.org/documents/P21_Framework_Definitions.pdf

APPENDIX B

Letter of Introduction

DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

Sharon A. Perry
P.O. Box 66
Pine Grove Mills, PA 16868
(814) 771-1448
sap19@scasd.org

November 4, 2011

Dear District Administration:

I am currently a 10th Grade Principal at State College Area High School in State College, PA. I am doctoral candidate in the Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) at Duquesne University in Pittsburgh, PA. I am interested in scheduling a brief, thirty (30) minute overview meeting by phone with you to discuss my research.

The purpose of my descriptive case study is to investigate a change process that incorporated the Partnership for 21st Century Skills Framework for 21st Century Learning into curricula. I will be focusing on the leaders' perceptions of the change process that allowed for 21st Century Skills to become embedded into the curricula. I am interested in learning what needed to be changed and how the change occurred.

This study is significant as there are no published studies regarding the change and implementation process of incorporating the Partnership for 21st Century Skills Framework for 21st Century Learning into curricula, nor are there published studies of the outcomes of the incorporation of the Framework. After gaining access to the site and the informed consent of participants, I will follow these general steps: (a) document and artifact/relic collection; (b) recorded and transcribed individual semi-structured interviews with leaders in the form of oral testimony; and (c) member-checking, which will enable each leader to determine the accuracy of collected data.

Participation in this study is strictly voluntary. Given that all participants are 18 years of age or older, informed consent will be obtained for each participant. Students are not a part of this research design. As a component of the Institutional Review Board (IRB) procedural safeguards, the confidentiality of participants will be addressed in detail within the consent form. Participants will have the right to withdraw from the study at any time. If you have additional questions about this study, please contact me at (814) 771-1448 or at sap19@scasd.org. You may also contact my dissertation chair and the IDPEL Program Director, Dr. James E. Henderson, at (412) 396-4880 or via email at henderson@duq.edu.

I hope that the results of my study will be beneficial to your school district, to your educational leaders, and to other school districts interested in implementing the Partnership for 21st Century Skills Framework for 21st Century Learning into their curricula, as well as to the broader research community. I very much look forward to speaking with you and thank you, in advance, for your assistance with this research.

Kind regards,

Sharon A. Perry
Doctoral Candidate - IDPEL
Duquesne University School of Education

APPENDIX C

Consent to Participate in a Research Study

DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE: A DESCRIPTIVE CASE STUDY OF 21st CENTURY SKILLS IN SCHOOLS: EXPLORING THE CHALLENGES AND OPPORTUNITIES OF ADAPTIVE CHANGE AND INNOVATION FOR EDUCATIONAL LEADERS AND THE SCHOOLS THEY LEAD

INVESTIGATOR:
Sharon A. Perry
P.O. Box 66
Pine Grove Mills, PA 16868
(814) 771-1448

ADVISOR:
Dr. James E. Henderson
IDPEL Program Director
Department of Foundations and Leadership
(412) 396-4880

SOURCE OF SUPPORT: This study is being performed in partial fulfillment of the requirements for the degree of Doctor of Education in the Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) at Duquesne University in Pittsburgh, PA.

PURPOSE: As educational leaders who have incorporated the Partnership for 21st Century Skills Framework into your curricula, you are being asked to participate in a research project that seeks to investigate the change process of incorporating the Partnership for 21st Century Skills Framework into your curricula. This study should illuminate practical issues of participating in a change process intended for the personal and academic growth of students.

With voluntary consent, you will be invited to participate in individual semi-structured interviews that should last approximately forty-five (45) minutes to one hour. The individual interviews will be audio-taped and transcribed.

This is the only request that will be made of you.

RISKS AND BENEFITS: There are no risks greater than those encountered in everyday life. Possible benefits of the study include a detailed account of a change process that occurred within your school district. There is tremendous interest from school districts regarding the implementation of the Partnership for 21st Century Skills Framework for 21st Century Learning. This detailed account may support out-of-district colleagues in their own implementation efforts.

COMPENSATION: The project will require no monetary cost to you. Additionally, there will be no compensation for participating in this study.

CONFIDENTIALITY: Your involvement in this study will remain confidential, unless you specifically indicate your interest to be identified. The audio-recordings of the oral history of the change process will be transcribed. Pseudonyms will be used for the leader and any references to students or other school personnel. After identifiers are removed, portions of the transcript may be used for direct quotation or discussion in the final dissertation report. However, it must be noted that although every effort will be taken to safeguard anonymity, there is a possibility that your voice can be an identifier. All written materials, consent forms, and audiotapes will be stored in a locked file in the researcher's home and retained for five years after study completion. At that time, all materials will be destroyed. Your response(s) will only appear in data summaries.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time without risk or consequence.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request. You will

also receive a transcription of your interview session as a part of the data analysis process for review.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project. I understand that should I have any further questions about my participation in this study, I may call Sharon A. Perry (see above for contact information), Dr. James Henderson (see above for contact information), and/or Dr. Joseph Kush, Chair of the Duquesne University Institutional Review Board 412-396-6326).

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature Date

APPENDIX D

Leader Interview Questions

Leader Interview Questions

A. **Demographic/Background**

1. Can you provide some of your background experiences (e.g. certification, experiences, years in education, years at this school district, etc.)?

2. Please describe how you characterize yourself as a leader. How would you describe your leadership style?

3. Please describe your district and/or school culture.

4. What are your district mission, vision, and core beliefs?

B. **21st Century Skills**

1. How do you define 21st Century Skills? Upon what do you base that definition? Do you think your colleagues would define 21st Century Skills in the same way?

2. With regard to 21st Century Skills, please talk about the consistency of beliefs on your administrative team.

3. Why do you believe (or not believe) that the development of 21st Century Skills are necessary for students today? Do your teachers, students, parents, and community believe that the 21st Century Skills are necessary for students today?

4. What 21st Century Skills professional development opportunities have you and your teachers participated in?

C. **Change Process and Implementation of Partnership for 21st Century Skills Framework**

1. What needed to change in your district/school that led to the change process that incorporated the Partnership for 21st Century Skills Framework into the curricula?

2. How did you go about the change process through which you incorporated the Partnership for 21st Century Skills Framework into the curricula?

3. What obstacles, if any, did you need to overcome? How was this accomplished?

4. Would you go through this process over again, knowing what you know now? Please explain.

5. What are the lessons learned from this process? What would you do the same and/or differently?

6. What would you recommend for school districts interested in implementing the Partnership for 21st Century Skills Framework?

D. **Miscellaneous**

1. Are there any other thoughts regarding 21st Century Skills or the change process about that you wanted to share?

APPENDIX E

Murrieta Valley Unified School District White Paper:

21st Century Collaborative Project:

An Educational Initiative to Transform High School for the 21st Century

White paper

Murrieta Valley Unified School District

21st Century Collaborative Project

An Educational Initiative to Transform High School for the 21st Century

01.01.2009

Transforming High School for the 21st Century

Those Who Would Be Leaders in Education
Must Be Leaders in Learning

We can rationalize the failures of the past
Or we can learn from them.

We can complain about the troubling inadequacies of the present
Or we can face them.

We can talk and dream about the glorious schools of the future
Or we can create them.

If we want children to learn to think and read
We must show them thoughtful people,
eager to take in new information.

If we want them to be brave and resourceful
Let them see us risking a new idea or finding a way.

If we want them to be loyal, patriotic and responsible
Let us show them that we can be true to our deepest principles.

If we want new and better schools
We will have to be new and better people.

Marilyn Ferguson
Towards a Quantum Mind

21st Century Collaborative Project
Collaborative Participants

(3) Teachers:
Murrieta Valley High School

(3) Teachers:
Vista Murrieta High School

(1) Teacher:
Creekside High School

(1) Counselor:
Murrieta Valley High School

(1) Counselor:
Vista Murrieta High School

Administration:

(1) Principal:
Murrieta Valley High School
Renate Jefferson

(2) Principals:
Vista Murrieta High School

(1) Principal:
Murrieta Mesa High School
Mary Walters

(1) Principal:
Warm Springs Middle School

District Office
Director, Human Resources
Coordinator, Library and Media
Director, Student Support Services
Director, Alternative Education
Coordinator, Instructional Support

Higher Education - Mount San Jacinto Community College

Facilitator:
Guy Romero – Assistant Superintendent, Educational Services

Introduction

With nearly ten percent of the 21st Century behind us, the ever-changing face of the high school student, and the exponential growth in technology, public educators must take a serious look into the traditional structures and expectations of our nation's high schools and ask, "Are we really preparing students for the challenges and opportunities that lie ahead in the rest of this century?"

For the last one hundred years, high school has been the gateway experience through which children enter adulthood. The quality of a high school is often measured by the ability to prepare graduates for higher education or the world of work.

In the past, we have experienced some success in accomplishing this task for an industrial world. We now find ourselves rapidly moving through a series of "revolutions" from the industrial into the technological, then into the information, to the knowledge, and now possibly into the responsibility age.

This "responsibility revolution" may be the result of events in this last decade that changed our lives and touched our spirit.

Author Tim Sanders in *Saving the World of Work* identified four changes that are influencing our nation's values:

Change One: The Information Boom.
An abundance of information empowers people to become highly selective about companies with whom they choose to do business. Our students routinely use the latest online tools for educational purposes such as research and as consumers for researching products and making purchases.

Change Two: A Threat to Security and Safety.
Many who have suffered through traumatic experiences such as 9/11 emerge with a new perspective on life, as well as new priorities. Our students are dealing with these experiences at a vulnerable age.

Change Three: Scandals.
The number of corporate flameouts and scandals is unprecedented. Tens of thousands of families have lost jobs, pension, or investments. This economic meltdown and attempted bailouts have increased the public mistrust of corporations and government. What institutions do you trust? Again, our students are living through these turbulent events at a particularly vulnerable age.

Change Four: The Environmental Crisis.
Environmental preservation has become a top priority. None have embraced this movement more than our nation's students.

In addition to these changes, education is also challenged with expectations and accountability to achieve goals that are noble but possibly archaically measured. Parents have an increased interest in charter or alternative schools. As a result, parents have a wide range of choices of alternatives to traditional school. However, allowing choice requires greater responsibility for alternatives that are high quality and for parents to be responsible for managing their children's education. Are we prepared to meet the new challenges in education for the 21st Century?

In the words of the well known business leader and college professor Peter Drucker:

"In a few hundred years, when the history of our time is written from a long-term perspective, it is likely that the most important event historians will see is not technology, not the Internet, not e-commerce. It will be the unprecedented change in the human condition. For the first time – literally – rapidly growing numbers of people will have choices. For the first time, they will have to manage themselves.
And society is totally unprepared for it"

For the last two years, particularly over a period of six months, the Murrieta Valley Unified School District 21st Century Collaborative team explored a wide range of current educational trends and practices, reviewed research and literature, and collaborated with the private sector and institutions of higher education to explore ways to improve high school education and to discuss reform initiatives to prepare our students for the challenges and opportunities that lie ahead.

This collaborative included representatives from middle and high school administration, high school teachers and counselors, higher education representatives including career and technical education, and district administrators from curriculum, instruction, student support, assessment, and technology.

Guiding the discussion of the 21st Century Collaborative team was the mission to:

Create a 21st century blueprint for the design, organization, and management of high schools with a relentless focus on the results that matter for the 21st century student

This white paper is intended to serve as a report to the Board of Education and community with recommendations. It is not the panacea; it is merely the starting point.

Background

What are the needs of the 21st century student? What are the expectations businesses has for its workforce? What skills and knowledge are necessary for entry into higher education?

In our quest to find answers, a wide range of topics were put before the 21st Century Collaborative to learn, investigate, and debate.

Topics included:

- Graduation requirements
- Alternative means of delivering instruction, including online and hybrid online systems
- Attendance, Carnegie and "seat time"
- Senior Seminars
- Senior Project
- Use of technology to enhance instruction
- Information literacy
- Alternative assessment
- Partnerships and internships

- Virtual learning
- Service learning
- Dual enrollment between high school and college

To guide our discussions and provide a framework, the six key elements from *Results that Matter: 21st Century Skills and High School Reform,* published by the Partnership for 21st Century Skills, were used. This document was the result of a multi-year project that included thousands of key stakeholders and citizens across the United States who contributed insights into the needs for the 21st Century.

The six key elements from the Partnership for 21st Century Skills are:

Key Element 1: Core Subjects
High School students will continue to demonstrate mastery of core subjects including:

- English, reading and language arts
- World languages
- Arts
- Mathematics
- Economics
- Science
- Geography
- History
- Government and Civics

Key Element 2: 21st Century Content
In addition to these subjects, schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into the core subjects. The interdisciplinary themes include:

- Global Awareness
- Financial, Economic, Business, Entrepreneurial Literacy
- Civic Literacy
- Health Literacy

Key Element 3: Learning and Innovation Skills
Learning and innovation skills increasingly are being recognized as the skills that separate students who are prepared for increasingly complex life and work environments in the 21st century from those who are not. A focus on creativity, critical thinking, communication and collaboration is essential to prepare students for the future. Specifically, these skills include:

- Creativity and Innovation Skills
- Critical Thinking and Problem Solving Skills
- Communication and Collaboration Skills

Key Element 4: Information, Media, and Technology Skills
Currently, most schools limit computer training requirements to the skills necessary to operate technology. Students now live in a technology and media-rich environment marked by access to an abundance of information, rapid changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st

century, citizens and workers must be able to exhibit a range of functional and critical thinking skills related to information, media and technology. The topics that are included in 21st technology have been expanded to:

- Information Literacy
- Media Literacy
- ICT (Information, Communication & Technology) Literacy

Key Element 5: Life and Career Skills
Today's life and work environments require far more than thinking skills and content knowledge. The ability to navigate the complex life and work environments in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills. These skills, often referred to as soft skills, have become critical even in colleges and universities. Life and career (soft) skills include:

- Flexibility & Adaptability
    - Adapting to varied roles and responsibilities
    - Working effectively in a climate of ambiguity and changing priorities

- Initiative & Self-Direction
    - Monitoring one's own understanding and learning needs
    - Going beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
    - Demonstrating initiative to advance skill levels towards a professional level
    - Defining, prioritizing and completing tasks without direct oversight
    - Utilizing time efficiently and managing workload
    - Demonstrating commitment to learning as a lifelong process

- Social & Cross-Cultural Skills
    - Working appropriately and productively with others
    - Leveraging the collective intelligence of groups when appropriate
    - Bridging cultural differences and using differing perspectives to increase innovation and the quality of work
    - Developing active listening skills

- Productivity & Accountability
    - Setting and meeting high standards and goals for delivering quality work on time
    - Demonstrating diligence and a positive work ethic (e.g., being punctual and reliable)

- Leadership & Responsibility
    - Using interpersonal and problem solving skills to influence and guide others toward a successful attainment goal
    - Identifying and leveraging strengths of others and demonstrating the ability to effectively utilize these strengths in order to accomplish a common goal
    - Demonstrating integrity and ethical behavior
    - Acting responsibly with the interests of the larger community in mind

Key Element 6: Authentic 21st Century Assessments
Measuring the first five elements must include authentic assessments that are valid and reliable,

and affordable for sustainability. Modern technologies should be included. The assessments should include a balance of traditional high quality assessments that may include standards based and standardized tests, along with classroom designed assessments focusing on critical thinking, problem solving, and communication skills.

Recommendations

The 21st Century Collaborative reviewed, discussed and refined proposed initiatives. All proposed initiatives were developed with a focus on 21st century structures needed to support the District mission:

Inspire all students to think, to learn, to achieve, to care

The initiatives are organized into four major themes that encompass the six key elements from the Partnership for 21st Century Skills. The four themes are:

- Graduation requirements
- Online learning
- Dual enrollment
- Information, Communication and Technology Literacy (ICT)

Each theme has one or more recommendations for the Board of Education and community to consider. There are a total of ten recommendations. These ten recommendations have been reviewed and are supported by site and District administration.

GRADUATION REQUIREMENTS

The first five key elements in the Partnership for 21st Century Skills directly reflect courses offered at the high school level, or indirectly affect the course content. Therefore, the following recommendations focus on graduation requirements.

Recommendation 1:

- *Reduce the number of required credits from the current 250 semester credits to 230 semester credits except at the continuation high school where students shall complete a minimum of 210 credits.*

Rationale

The Murrieta Valley Unified School District has the highest credit requirement in Southern California. As a result, students wishing to transfer to district high schools in the junior and senior years often return to the sending school or risk being required to attend the continuation high school. Requiring more in quantity does not always translate to higher in quality. Reducing the number of credits required will open student schedules and will allow opportunities for credit recovery *(see recommendation 3)* or dual enrollment courses with community college *(see recommendation 8).*

Recommendation 2:

- *Continue with the seven period day and require that all students who are enrolled in a comprehensive high school and not in an alternative school program attend school for a minimum of 240 minutes daily each year including the senior year.*

Rationale

Retaining the seven period day is key to providing additional opportunities for students who need credit recovery, attend college courses on the high school campus, participate in athletics, and are involved in multiple programs such as band and Advanced Placement. The stipulated minute requirement is to avoid any confusion with Average Daily Attendance calculations and students who may be on a reduced schedule.

Recommendation 3:

- *Require that all core academic courses (English, Mathematics, Science, Social Studies) be successfully completed with a grade of C/pass or above. All courses with a grade of D or F must be repeated until a grade of C/pass is achieved.*

Rationale

21st Century students must demonstrate proficiency in core academic content. Students must also demonstrate the work ethic needed to meet the requirements of coursework. Accepting D grades for core academic courses violates proficiency and/or work ethic requirements. This recommendation also aligns with college requirements on completion of coursework.

Recommendation 4:

- *Clarify that all English courses in grades 9 through 11 are to be college preparatory courses approved by the University of California as meeting the UC/CSU "b" requirement. Students in grade 12 may meet the fourth year English requirement by successfully completing a non-UC/CSU approved course as long as the course is focused on expository reading and writing. The course must include a strong writing component that focuses on clear, concise writing skills and a reading component that emphasizes strong technical reading skills.*

Rationale

The UC/CSU approval process for English courses requires expectations in English courses that focus on academia. Students engaged in 21st century career pathways may need English options that are more aligned with the career pathway but do not meet the requirement for submission as a "b" course. Also, students attending college and focusing on applied studies may benefit more from English courses with an expository reading and writing emphasis which may not meet the requirements for a "b" submission.

Recommendation 5:

- *Require fifty elective credits at the comprehensive high school and thirty elective credits for students in continuation school.*

Rationale

Reducing the credit requirement to 230 semester credits *(recommendation 1)* results in the reduction of elective credits only.

Recommendation 6:

- *Require completion of a five credit Senior Project beginning with the freshman class of 2009. (Note: Starting with the freshman class of 2009 this would reduce the elective credit requirement to 45 elective credits at the comprehensive high schools and 25 elective credits at the continuation high school). The senior project will be a presentation on personal career and life goals that exhibits the student's creative ability, and his/her critical thinking and communication skills. It will also demonstrate a clear understanding of the essential activities needed to achieve the career and life goals.*

Rationale

The Senior Project has the potential of being the single most important culminating event for our graduates. This event will be the validation of 21st Century Key Element 5, Life and Career Skills. With today's life and work environments requiring far more than thinking skills and content knowledge, this project is intended to demonstrate the student's ability to navigate the complex life and work environments in the globally competitive information age by requiring students to pay rigorous attention to developing adequate life and career skills that demonstrate initiative and self-direction. The Senior Project begins development in the freshman year and culminates in presentations scheduled throughout the senior year.

ONLINE LEARNING

Online learning options will be afforded to students after graduation from high school. Online learning provides access, and it also presents a new and challenging learning environment. Thus, providing online learning options also becomes our responsibility if we are preparing students for higher education and the work environment.

Recommendation 7:

- *Continue the development of high school course offerings at the junior and senior level that could be taught in an online or hybrid online environment. Engage in dialogue with the teachers' association to determine work-related issues with online courses that include, but are not limited to class load, compensation, evaluation, and expectations so that the District is in a position to begin a limited number of courses in 2010-2011.*

Rationale

Graduating students will increasingly be enrolling in online courses from their freshman year of college. Also, many career fields require staff training through online courses. If K-12 is to prepare students for career and higher education, then we have a responsibility to provide opportunities for students to learn in the range of environments they will encounter upon graduation. In order for the online course to be high quality, it must be more than electronic textbooks with low level expectations for performance. Selected staff members who have both interest in and technical skills for developing rich online courses will require time and resources to develop curriculum and manage the online environment.

DUAL ENROLLMENT

According to the recent published reductions in enrollment and funding, our four year colleges and universities are no longer able to provide immediate openings for every high school graduate.

Reduced funding and shortages are also placing greater strain on the community colleges to provide higher education for high school graduates and as a result they are unable to meet the course demands.

Recommendation 8:

- *Collaborate with Mount San Jacinto Community College (MSJC) in development of a memorandum of understanding creating a dual enrollment agreement that will provide for college courses on high school campuses during the school day utilizing college curriculum and District teachers approved by the college.*

Rationale

High schools with a significant population of college bound students must forge strong relationships with community colleges by creating dual enrollment agreements that allow motivated students to schedule college courses during their high school career. Dual enrollment will offer students a "jump start" on meeting the general education requirements for college degree programs and facilitate completion of requirements for career and technical education pathways. Dual enrollment is mutually beneficial in that the community college will be able to meet increasing enrollment demands by offering off-site courses within our District.

INFORMATION, COMMUNICATION, TECHNOLOGY, LITERACY (ICT)

As stated in key Element 4 from the Partnership for 21st Century Skills, the 21st century student lives in a technology and media-rich environment marked by access to an abundance of information, rapid changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century classroom, students must be able to exhibit a range of functional and critical thinking skills related to information, media and technology.

Recommendation 9:

- *Revise the current Computer/Career course into a one semester required ICT/Career Literacy course with a focus on the study of skills, knowledge and expertise required to succeed in work and life in the 21st Century. The ICT instructional units must focus on developing a range of functional and critical thinking skills related to information, media, communication and technology literacy. The Career Literacy instructional units must focus on navigating the complex life and work environments in the globally competitive environment with a study of financial, economic, business, and entrepreneurial literacy, civic literacy, and global awareness. This course should also require students to design a four-year education plan based on individual post high school goals to ensure graduation requirements are met.*

Rationale

The current computers/careers course includes many valuable lessons and should not be abandoned. However, with the rapid growth and use of technologies, the current course is fast becoming archaic. The topics that are included in the 21st century technology course must include Information Literacy, Media Literacy, and ICT *(Information, Communication &*

Technology) Literacy.

STAFF DEVELOPMENT

21st century learning cannot be accomplished through the exclusive use of 20th century pedagogy and assessments. We must provide continuous, ongoing, structured, relevant and effective staff development for teachers. Strong Professional Learning Communities must be encouraged and supported with time.

Recommendation 10:

- *Provide adequate funding to support the redesign of selected courses including online courses and 21st century assessments, provide staff training in research-based classroom strategies for 21st century learners, and support the consistent use of Professional Learning Communities.*

Rationale

Staff development must be sustained and focused professional learning time for all teachers. Teacher collaboration is necessary in a 21st century classroom where it is not possible for a single teacher to know how to meet the needs of every child they will teach. We must identify research-based best practices, proven with results that matter, to occupy the content of the Professional Learning time. Current practices such as the introduction to and implementation of Marzano Instructional Strategies and Thinking Maps, the development/revision of common assessments, data analysis, learning design, and the planning and implementation of accreditation recommendations at the high school level must be supported. Programs and courses offered through school site initiatives such as Career Pathways, International Baccalaureate, dual enrollment, and online courses will require staff training and release time for course and assessment development.

Plan Impact

These ten recommendations will have impact on current curriculum, programs and instructional practices. Over time, many courses will need to be revised and updated to reflect the needs of the 21st century. Nonetheless, what will remain is a strong educational foundation based on the basic knowledge and skills all students have always needed to master.

Some of the impacts of the recommendations may be addressed in revisions to administrative regulations. Staff will generate potential solutions to address each impact and concern.

Examples of impacts expected include:

- Accepting transfer students with credit-earning D grades
- Establishing grading policies in collaboration with teachers at the middle and high school levels

- Identifying the impact on middle school and collaborating on transforming middle school to meet the needs of 21st century students

- Creating performance criteria and rubrics for the Senior Project and establishing Senior Project panels

- Negotiating work-related issues with online courses

Timelines and Funding

The current economic crisis cannot become a barrier for the movement to transform our high schools into 21st century learning organizations. Many of the recommendations require little or no funding.

Initial steps would include rolling out this initiative to parents, staff, business and community for input. Board policies regarding graduation requirements will need to be revised immediately prior to the start of the 2009-2010 school year.

Educational Services will build, as part of the 2009-2010 goals and work plans, support activities that can be funded and realistically completed.

Funding to support these recommendations will need to come from any state or federal entitlements and grants (i.e., Title 2 Secondary Schools Initiative) and lottery.

Conclusion

Today's economy demands high level competence in traditional core academic areas. It also requires highly creative and innovative minds proficient in accessing, analyzing the validity of and knowing how to use and apply the wealth of information resources now available. High schools must strive to inspire all students to make a difference no matter who they are, where they live, or how high or low their grades are. Our students will become the shapers of our community and it is our responsibility to prepare them to become our leaders.

It is clear that the transformation of high schools will not be a single event, but one that will continue to evolve and change every year. It is our responsibility as leaders in education to be the leaders in learning,

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APPENDIX F

Senior Exit Interview Handbook

Senior Exit Interview Handbook

Murrieta Valley Unified School District

Educational Services

A High School Graduation Requirement

DISTRICT MISSION:

To inspire every student to think, to learn, to achieve, to care.

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Introduction to the Senior Exit Interview

The Senior Exit Interview is a graduation requirement established by the Murrieta Valley Unified School District in 2008 as a recommendation from the 21st Century Collaborative Ad Hoc Committee. This district committee reviewed research and recommendations addressing 21st century college and work force requirements, and as a result Board Policy 6146.1(a) regarding district graduation requirements was revised.

Students obtaining a diploma of graduation from a Murrieta Valley Unified School District high school shall successfully complete a presentation on personal career/life goals. This presentation will exhibit the student's creative ability, critical thinking and communication skills while demonstrating a clear understanding of the essential activities needed to achieve the career/ life goals.

The Senior Exit Interview process includes a written reflective essay, a problem based senior project, and a culminating presentation.

What happens if the student does not complete the exit interview process/presentation?

Students who do not receive a successful evaluation will be given the opportunity to revise and present again, prior to graduation. **If the student does not meet the exit interview requirement, he or she will not graduate.**

Scoring the Senior Exit Interview

Context

Students today are preparing for jobs that don't yet exist. The unimaginable is becoming commonplace, and citizens of the world are no longer fixtures but designers. The exit interview will introduce them to the skills needed to succeed in the 21st Century.

Overview: *what will you encounter in your future, and how will you be a vital contributor for the world?*

The senior exit interview emphasizes the student's potential contribution for an ever-changing world after graduation, which will help reveal how the student will be a vital asset to his or her chosen area of interest. The interview panel could include district personnel, community members, and students. The student will show the panel the process of investigating an appropriate post-high school career/life goal. The exit interview is assessed as complete or incomplete based on a proficient score earned on the district-approved rubrics.

Reflective Essay: *how will you be a solution in this ever-changing world?*

The reflective essay is completed in the junior year and will be evaluated on the quality of critical thinking and mechanics. Writing should be coherent, adequately organized, developed, and reflects an awareness of audience and purpose. The language should demonstrate control of the conventions of written English and be generally free of errors. The student will be required to gather information related to his or her field of interest.

Oral Presentation: *why do you want to be what you want to be?*

The oral presentation will be evaluated on structure and organization, vocal expression, non-verbal skills, and overall impact. In addition to meeting the time requirement, the presentation should include an introduction, main ideas, and conclusion which exhibit critical thinking. Vocal expression will be rated on volume, pitch, articulation, and pronunciation. The oral presentation should include appropriate eye contact, posture, gestures, movement, and attire. The presentation's overall impact will be scored on energy, enthusiasm, sincerity, and originality/creativity.

Project Demonstration: *can you demonstrate how your contribution reveals your passion?*

The project demonstration will be evaluated on understanding of purpose and audience, choice of media, creativity, and relevance of career/life goals, which should create a convincing overall impact on a professional audience/panel. The project should demonstrate a clear purpose and an appropriate understanding of audience. Media should be ready to use, appropriate, and relevant to the student goals. Creativity will be evaluated on clarity and originality. The student's exploration of how to make a personal contribution as a citizen for the world should demonstrate an understanding of how to plan for and achieve both long and short-term goals. The student should exhibit enthusiasm and sincerity so that the panel is left with a positive overall impact, confident that the student will be able to achieve any future goal.

Student Name (PRINT): _____

Senior Exit Interview Application: *Submit to the exit interview coordinator no later than the end of first semester.*

Grade	Component Description	Student Initials	Parent Initials	Date
Grade 9	Complete the Information Communication Technology/Careers Course.			
Grade 10	Complete an Individualized Learning Plan (ILP) created and electronically submitted by the end of 10th grade to counselor.			
Grade 11	Complete the *reflective essay in his/her English class which meets minimum expectations. ** Special Education Students will be allowed accommodations and modifications as determined by the IEP teams in the completion of this assessment.*			
Grade 12	Complete the semester Senior Exit Interview Seminar course (if necessary) to assist in the completion of the preparation for the Senior Exit Interview presentation.			
	Complete and submit the Senior Exit Interview Application.			

Student:
Your signature below acknowledges readiness to complete the Senior Exit Interview, which is a MVUSD high school graduation requirement.

_____ _____
Student Signature Date

_____ _____
Email Cell

Parent/Guardian:
Your signature below acknowledges your student's readiness to complete the Senior Exit Interview, which is a MVUSD high school graduation requirement.

_____ _____
Parent/Guardian Signature Date

_____ _____
Email Cell

The Reflective Essay

In grade 11, students will complete the reflective essay requirement of the senior exit interview process. The essay will be scored using a district-approved rubric. Special education students will be allowed accommodations and modifications as determined by the IEP teams in completion of this assessment. Students needing more guidance and mentoring may take the semester-long Senior Exit Interview Seminar course to assist in the completion of the reflective essay.

Reflective Essay Prompt

Directions for Writing: Write a reflective essay focusing on the senior exit interview. Describe the process, struggles, and dilemmas you have experienced in your planning and preparation for the senior exit interview. Use the rubric and the guidelines below in planning and developing your essay.

Reflective Essay Guidelines

Structure: Include one paragraph on each of the following topics--

- **Introduction:** Define the focus of your investigation into your personal career/life goals through the exit interview process. Consider the following questions:
  - What topic(s) have you investigated? You may talk about frustration you experienced in trying to decide what to do. Why did you discard other topics in favor of the one you chose?
  - Why did you choose the topic you did?
  - What were the goals of your investigation?
  - What questions did you have at the beginning? Did you want to learn something new? Career focus? Strong skill you possess?
  - What did you learn from this investigation?
- **Body Paragraph 1—Work Completed:** Describe in detail the steps you have taken and work you have completed in this investigation thus far. Consider the following questions:
  - What did you accomplish during your 9th grade year? 10th grade year? 11th?
  - What do you still need to accomplish?
- **Body Paragraph 2—Value/Impact:** Reflect upon the value and impact of the work you have completed in this investigation thus far. Consider the following questions:
  - What was the single most important lesson you learned during this investigation?
  - What level of impact did this investigation have on you?
  - Would this investigation be worth repeating? Why or why not?
  - Did you feel successful? How do you measure success?
  - Did this investigation uncover new opportunities for you?
- **Body Paragraph 3—Problem Solving:** Reflect upon the obstacles you encountered during this investigation. Consider the following questions:
  - What was a major obstacle you encountered during this investigation? Did you anticipate the problem when you began? How did you attempt to solve this problem? What worked/didn't work?
  - It is possible that we learn more from our failures than our successes. Why would this be true? Do you have an example of this as it applies to your investigation?

  - Can you give us an example of how a seemingly "small detail" grew into a much larger issue? What did you do to "contain" it?
  - If someone else were going to complete an investigation similar to yours, what three things would you recommend he/she carefully consider in order to be successful?

- **Body Paragraph 4—Accountability:** Reflect upon your level of commitment and accountability during this investigation. Consider the following questions:
  - Knowing that this investigation and exit interview was a requirement for high school graduation, do you feel that you devoted adequate time and energy in its planning and follow-through?
  - Did this investigation significantly impact other areas of your life (e.g. schoolwork, job, family, social life)?
  - What untapped resources could be helpful as you complete your investigation in preparation for your exit interview?

- **Conclusion:** Reflect upon what you learned from this investigation. Consider the following questions:
  - How would you evaluate your investigation?
  - Were you successful in achieving the goals of your investigation? Explain.
  - What things would you do differently if you had to do it again?
  - How have you grown as a productive adult?

Requirements:

- Due before spring break of the junior year
- Submit hard copy (no digital formats) to the exit interview coordinator
- Must be typed (double spaced, Times New Roman, 12 pt. font)
- In order to complete this essay, you MUST have already started your project

Sample Exit Interview Presentation Ideas

- create a personal video package (radio/TV broadcasting)
- conduct and analyze a patient/client survey (medicine)
- design an informational packet (medicine, law, etc.)
- write (for publication) a newspaper article on a current, relevant topic
- design a website for a small business, organization, or professional group (animation, media tech)
- design a set of architectural blueprints (architecture, engineering)
- create a photo journal of steps in project completion (engineering)
- design and build a model of a project (architecture, engineering)
- plan a lesson, teach a class, and reflect on the outcome (education)
- design a graphic (logo, advertisement, webpage) to be used by a business, organization, club, etc. (animation, graphical arts)
- write a will in an acceptable legal format (law)
- research and write pamphlets or booklets (graphical arts)
- create laminated charts, posters, etc. (graphical arts)
- design and produce instructional media: video, audio, etc. (media technology)
- draw a cartoon book explaining a process or a procedure (education)
- produce a "day in the life" video of your chosen major (media tech)
- design a marketing campaign for a business or product (graphic arts, marketing, hotel management)
- research and design a menu for a restaurant with nutritional information (graphic arts, culinary)
- set up an accounting system for a small business (banking & finance)
- choreograph and perform a dance routine (performing arts)
- write a scene play and/or perform a monologue (performing arts)
- perform an instrumental or vocal solo (performing arts)

Exit Interview Rubric: Part 1– Reflective Essay

STUDENT:_____

EVALUATOR:_____ DATE: _____

CRITERIA/SCORE		BELOW EXPECTATIONS *1 Point* (Below Performance Standards)	MEETS EXPECTATIONS *2 Points* (Minimal Criteria)	EXCEEDS EXPECTATIONS *3 Points* (Demonstrates Exceptional Performance)
Mechanics		Demonstrates poor control over sentence structure.	Demonstrates adequate control of sentence structure with appropriate use of language and word choice.	In addition to meeting the proficient criteria Demonstrates exceptional control of sentence structure with precise use of language and word choice
		Demonstrates inadequate control of sentence structure with inappropriate use of language and limited or incorrect word choice	Reflects fundamental control of the conventions of written English and is generally free of errors	Reflects mastery of the conventions of written English and is virtually free of errors
Content/ Critical Thinking		Writing is ineffective with random or weak organization, poor development, and little or no awareness of audience or purpose	Writing is coherent, adequately organized and developed, and demonstrates and awareness of audience and purpose	Writing is confident, coherent, clearly focused, well organized, thoroughly developed, and communicates insightfully with consistent awareness of audience and purpose
		Communicates little or no focus for the investigation	Communicates a focus for the investigation	Communicates a clear and powerful focus for the investigation
		Describes with few or no detail the steps completed in the investigation	Describes in detail the steps completed in the investigation	Describes with rich detail the steps completed in the investigation.
		Reflects ineffectively or insufficiently on the value and impact of the investigation	Reflects on the value and impact of the investigation	Reflects thoroughly and insightfully on the value and impact of the investigation
		Reflects ineffectively or insufficiently on the obstacles encountered during the investigation	Reflects on the obstacles encountered during the investigation	Reflects thoroughly and insightfully on the obstacles encountered during the investigation
		Reflects ineffectively or insufficiently on the level of accountability and commitment during the investigation	Reflects on the level of accountability and commitment during the investigation	Reflects thoroughly and insightfully on the level of accountability and commitment during the investigation
		Essay poorly addresses or does not address the possible questions listed in the reflective essay guidelines	Essay addresses and adequate number of the possible questions listed in the reflective essay guidelines	Essay addresses the majority of the possible questions listed in the reflective essay guidelines
TOTAL		**18 points required to pass.**		

Additional Comments:

Senior Exit Interview Rubrics: Part 2 – Interview/Presentation

PROJECT PRESENTED: _____

STUDENT: _____

EVALUATOR: _____ DATE: _____

CRITERIA/SCORE		BELOW EXPECTATIONS *1 Points* (Below Performance Standards)	MEETS EXPECTATIONS *2 Point* (Minimal Criteria)	EXCEEDS EXPECTATIONS *3 Points* (Demonstrates Exceptional Performance)
Structure and Organization		• Main ideas were not presented in a logical progression • Presentation too short	• Main ideas were presented in a logical progression • Presentation met time requirement	• Main ideas connected by original transitions, logical throughout entire presentation; creative pattern • Presentation met time requirement
Problem Solving		• Presentation shows inappropriate or lack of problem solving. No possible questions were answered	• Presentation shows appropriate application of problem solving. Possible questions were answered.	• Presentation shows in-depth application of problem solving. All possible questions were expertly answered.
Career/Life Goal		• Does not demonstrate an understanding of how to achieve short and long term goals • Does not demonstrate an understanding of how to achieve life/career goals	• Demonstrates an understanding of how to achieve short and long term goals • Demonstrates an understanding of how to achieve life/career goals • Demonstrates how project is relevant to individual's strengths	• Project reveals life/career goals that are well matched to his/her individual strengths
Public Speaking Technique		• Presentation does not demonstrate adequate oral communication skills including eye contact, voice control, clear enunciation, and effective body language. • Attire was inappropriate for presentation • Speaker appeared apathetic and without conviction/ownership	• Presentation demonstrates adequate oral communication skills including eye contact, voice control, clear enunciation, and effective body language • Attire was appropriate for audience and presentation. • Speaker presented with sincerity and enthusiasm	• Presentation demonstrates exceptional oral communication skills eye contact, voice control, clear enunciation, and effective body language. • Attire was chosen to enhance presentation. • Speaker presented with sincerity and enthusiasm, exhibited great creativity.
Media Features		• Materials detracted from content or purpose of presentation or were of such low quality as to discredit presenter	• Media/materials were appropriate and enhanced project presentation • Equipment and visuals prepared and ready to use	• Project features a variety of highly effective, unique materials and media
Creative Ability		• Shows lack of creative effort	• Creativity attempted in a unique and thoughtful manner	• Creative approach effectively enhances the audience's understanding of the topic
TOTAL		**12 points required to pass.**		

ADDITIONAL COMMENTS: