Searching for Innovation, Creativity and 21st Century Skills: A Case Study of a Suburban Elementary School District

Robert Alexander Serdar
National Louis University

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SEARCHING FOR INNOVATION, CREATIVITY AND 21ST CENTURY SKILLS: A CASE STUDY OF A SUBURBAN ELEMENTARY SCHOOL DISTRICT

Robert Alexander Serdar
Educational Leadership Doctoral Program

Submitted in partial fulfillment of the requirements of Doctor of Education
Foster G. McGaw Graduate School
National College of Education
National-Louis University
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Robert Alexander Serdar
Educational Leadership Doctoral Program

Approved:

[Signatures]

Chair/Co-Chair, Dissertation Committee
Co-Chair/Member, Dissertation Committee
Member, Dissertation Committee
Dean's Representative

Program Director
Director, Doctoral Programs
Dean, National College of Education

6-29-15
Date Approved
ABSTRACT

The purpose of this study was to seek out and identify the traits, attitudes and characteristics of innovative, creative and highly effective teachers within a suburban elementary school district. Participants included five elementary teachers who were identified by their colleagues as being exceptionally innovative, creative and fostering 21st Century Skills. The research method for this qualitative case study consisted of teacher interviews, student interviews, and multiple classroom observations by the researcher. From this, seven themes, or practices, of highly innovative, creative teachers of 21st Century Skills emerged: (1) See the Teacher as Lead Learner (2) Encourage Learner Reflection (3) Foster Class Community and Relationships (4) Give Students Choice To Instill Ownership (5) Employ Project/Problem-Based Learning (6) Make Connections to Real Life (7) Encourage Teacher and Student Collaboration.

Recommendations for district leadership are included to promote and encourage the application of these practices throughout the district.
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"The future belongs to a very different kind of person with a very different kind of mind—creators and empathizers, pattern recognizers, and meaning makers".

(Pink, 2006, p. 95)
CHAPTER ONE: INTRODUCTION

Introduction

If you walk into any classroom, at any grade level, in any school around the world and ask a student, “Who is the smartest child in the class?” I believe that they could formulate an answer within seconds, either based on their own opinions and observations, or on the opinions and attitudes of the others in the classroom. Chances are they would point right at them. Criteria such as test scores, behavior, ability to conform to school-wide norms, work habits, reading level, motivation, and family/sibling reputations all represent a multitude of factors that may influence students’ feelings about how intelligence is measured and ultimately valued in our society. Although it is never explicitly taught in school, students learn early on what educators consider intelligence. Moreover, the way this concept is conveyed often leaves children feeling as if intelligence is nothing more than an innate ability, unable to be learned or cultivated. A goal of this dissertation is to illuminate the idea that schools have been designed to favor a very narrow understanding of what constitutes intelligence. Furthermore, students who’s learning styles, and arguably of greater importance, thinking styles, which run incongruent to what has been traditionally valued in schools have been marginalized and underappreciated. The purpose of this study is to explore the types of teaching and skills required to broaden the definition of intellect that governs our school system, while providing vision as to what true 21st Century Learning must be to engage all learners. As part of this introduction, I would like to begin with a vignette featuring my friend Len.

What Many Schools Consider Smart

One of the most significant and profound memories of my academic career
occurred in the sixth grade when my close friend Lenny and I attended a sporting event on the same day our mid-term progress reports were distributed. I can recall standing under the bleachers, looking at my report and seeing the word “Failing” marked in Science due to low quiz and test scores. Of course, “Missing Assignments” was close to follow. My friend Len’s simply said, “Failing”. His comments, “Average quiz and test score: 40%”. We both looked at each other in shock, as if this was a surprise to us, as if we hadn’t been sitting in class for the past months staring out the window, disengaged. Our spiral notebooks filled with sketches of tanks, cars and guitars (which we were anxious to compare in the hallway after class) served as a testament to our lack of interest to what was being taught, and a direct indicator of our impending academic doom. We were daydreamers. We were bored. While our imaginations expounded toward the outer reaches of our own interests, our inability to apply ourselves in class was a blatant reality. Soon our on-going failure to achieve academic success slowly began to erode our self-efficacy. Together we began to think and believe that we were not good at school and eventually not as smart as our peers. Bransford et al. (2000) suggested:

Students’ theories of what it means to be intelligent can affect their performance. Research shows that students who think that intelligence is a fixed entity are more likely to be performance oriented than learning oriented—they want to look good rather than risk making mistakes while learning. These students are especially likely to bail out when tasks become difficult. In contrast, students who think that intelligence is malleable are more willing to struggle with challenging tasks; they are more comfortable with risk. (p. 23)
Dweck (2006) described the difference between what she calls a “growth mindset” vs. a “fixed mindset”. She explained that with a growth mindset people believe that abilities like intellect can be expanded and fostered, while those who believe in a fixed mindset, feel that these characteristics are set traits. These two divergent philosophies can have a very influential impact on how educators relate to their students.

To be quite fair, this isn’t to imply that our teachers were “bad” or taught in ways that were wrong. To the contrary, our teachers were very caring, however, the instructional method that we were exposed to was predominantly didactic in nature. And while this traditional lecture style may have been effective for some of the students in our class, it was not effective for us. Christensen, Horn and Johnson (2008) referred to the success certain students experience in school only if their intelligence “happens to match the dominant paradigm in use in a particular class” (p. 35). Sternberg (2000) described “successful intelligence” as:

The ability to balance the needs to adapt to, shape and select environments in order to attain success, however one defines it, within one’s socio-cultural context. Successfully intelligent people are alleged to discern their patterns of strengths and weaknesses, and to capitalize on their strengths and to compensate for or correct their weaknesses. (p. 438)

Both Sternberg (2000) and Christensen, et al., (2008) alluded to the idea that students have a greater likelihood of achieving success when they understood their strengths and weaknesses, and lessons were taught to compliment these attributes.

The following year Len moved from our suburban neighborhood thirteen miles south to a much more rural area, where he worked after school and on weekends for his
Uncle’s well drilling company. This job provided Len with the financial ability by which to pursue many of his creative interests. A short time after I visited Len at his new home where he took me on an astounding tour of his room. It began at a drafting table amassed with sketches and drawings that he had begun in class. He shared some of his artwork with me then showed me a working replica of a truck engine that he had built out of Legos. He was particularly proud of the way the pistons moved up and down just as an actual truck engine’s might, while I was particularly intrigued as my usual Lego design consisted of a multicolored wall. A few feet to the right was an electric guitar, amplifier and stereo system, which he played regularly. Of all the things Len was passionate about, music was probably the most prominent, as he would eventually teach himself to play several instruments. As soon as Len enrolled in his first high school woodshop class he built his own guitar. Even then as an adolescent I realized Len’s talents and remember thinking that none of our teachers knew anything about his creativity, or his ability to think in terms that produce many solutions to a problem or as Guilford (1959) called divergent thinking. Because many educators are not adept at recognizing and assessing differentiated learning styles, or are only proficient delivering instruction utilizing only a margin of the multiple intelligence spectrum, educational experiences for students can be severely limited and talents undeveloped or neglected totally.

Over the past years this problem has been exacerbated due to the mandates of NCLB (No Child Left Behind), schools have narrowed their focus on math and reading, paying less attention to other disciplines such as the Arts, and eliminating opportunities for students to apply the mathematical and literary skills they are learning. In other words, although there may be a focus on mathematics and literacy skills, these are taught
in isolation. Neill (2006) described this narrowed focus that has occurred in schools as the NCLB legislation attempts to close the achievement gap and raise accountability:

The primary narrowing has been on math. This is due to an intensified emphasis on math instruction. However, as educators are pressured to teach to the state tests, NAEP gains appear to be mainly in rote learning, not conceptual understanding or problem-solving. (p. 27)

As the years progressed, our interests and academic careers continued to evolve, and though my visits to Len’s house became less frequent, it was always remarkable to see which direction his interests led him. We later attended different high schools and our future goals led to dissimilar coursework. Although unsure of any major area of study, I had always planned on attending college, while Len chose to continue working for his family’s business and chose courses that promoted his skills in the applied arts such as; drafting, welding, automotive mechanics, carpentry, math and science. Len excelled in all of his classes, as he was able to apply what he was learning to his everyday life. I on the other hand, followed a college track curriculum, with courses that continued to disinterest me, struggled with grades and often felt defeated as a learner. Steinberg (2001) viewed this as a model that separated those who worked with their hands from those who worked with their heads, and related this to the traditional reference of college prep and shop courses. "Intelligence, it was thought, was an inherited quality that could be measured with a single instrument. The best the schools could do is test and sort the students teaching some to work with their minds, and relegating most to work with their hands" (p. 49).

Len continued to foster his talents in a diversity of areas. He loved to disassemble
things and put them back together, often incorporating some type of redesign or modification to meet his needs. In school he was often reprimanded for continuously taking apart his pens, while concurrently at home he was disassembling an actual automotive engine or transmission in his free time. Len liked to figure things out, constantly looking for relationships on how things worked, while he applied his ideas to create things that he enjoyed. As I look back on the time I spent sitting through traditional lectures built on a rigid structure of math, science and prerequisite coursework meant to improve the likelihood of my acceptance into a university, I can attribute a great deal of my difficulties to the lack of opportunity to apply the concepts being taught in class. Bransford et al. (2000) noted that this transfer from school to the everyday environment is the ultimate purpose of school. Rogers (1989) describes the difference between classrooms where students are seen as citizens rather than tourists:

Schools that kids love have teachers, principals, staff and parents who are person-centered. Students are active, involved, and engaged citizens; they are stakeholders in their learning communities. The love that students have for their learning reflects directly on what happens in classrooms. How teachers view their role is crucial. When teachers are facilitators of learning rather than mere givers of information, students are challenged to think for themselves. When teachers respect students as sources of knowledge, rather than consumers, students become more engaged in the learning process. (p. 8)

My academic career continued to be arduous at best, until my sophomore year in college when my brother encouraged me to pursue a career in teaching. I found this new course of study vastly more engaging than that of the past, and more importantly, the
instructional techniques and manner in which classes were taught aligned with my learning style. Seldom did I experience the academic solitude of a large lecture hall; classes were now smaller and instructors encouraged collaboration and hands-on application. These classes stressed the need and importance of understanding a topic conceptually before you could effectively teach it. For what seemed to be the first time I felt my own creativity and divergent thinking style begin to emerge and be valued. I was finally in an academic environment where multiple solutions to problems were not only accepted, but also encouraged. Brady (2008) discussed the need for schools to focus on higher-order thinking skills rather than designing curricula that gears itself more toward simple recall activities. In this new environment, more emphasis was put on conceptual understanding rather than remembering and recalling content. I consider both Len and myself fortunate to have found our own successful intelligence, however, I don’t believe the structure of our educational environment was designed to enrich or foster it.

Statement of the Problem

While I believe that the most significant goal of education is to enable an individual to recognize their own ability to learn and to understand their unique learning style, I feel that this should not occur at the conclusion of their formal academic career. Understanding the process and importance of actual learning, rather than learning rote skills and information should happen as early on in a child’s academic career as possible.

Unfortunately, in many schools the outdated lesson structure and philosophy of the education provided for students fails to meet their needs. The innovation, creativity and 21st Century skill set that we strive to instill in our students and proclaim to be their best tools for success in the future is neglected the most within our current educational
model. While there are teachers who strive for innovation and encourage creativity, at times these individuals make up the minority in our school systems. Our educational system continues to teach our students to memorize information and sort facts, rather than how to learn.

Rationale

Wagner (2008) described a significant change that teaching and learning must undergo if students are to be successful in a changing global economy:

All students need new skills to thrive in a global knowledge economy. In order to get good jobs and to be active informed citizens in our democracy, today’s students—and tomorrow’s workers—need to learn how to think critically and solve problems, work in teams and lead by influence, be agile and adaptable, take initiative and be entrepreneurial, communicate clearly and concisely, access and analyze information effectively, and be curious and imaginative. All of today’s students will need to master the skills that Socrates taught—not just the elites. (p. 256)

Students will need to have an understanding of their own talents as learners, how they learn best and how to make the best use of their talents. Gerjuoy, as quoted by Toffler (1973) states:

The new education must teach the individual how to classify and reclassify information, how to evaluate its veracity, how to change categories when necessary, how to move from the concrete to the abstract and back, how to look at problems from a new direction—how to teach himself. Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn. (p. 414)
This essential skill set must be introduced to students at their inception into the educational community, and reinforced throughout their entire educational career. In order to maintain a clear focus on effective student learning to acquire these vital 21\textsuperscript{st} Century Skills, teachers need to assume the role of learner and explicitly demonstrate the skills they hope to foster in their students. Darling-Hammond and McLaughlin (1995) discussed the need for teachers to reconsider their role in the classroom:

The vision of practice that underlies the nation’s reform agenda requires most teachers to rethink their own practice, to construct new classroom roles and expectations about student outcomes, and to teach in ways they have never taught before — and probably never experienced as students. (p. 597)

Many educational reformers envision the new millennium as fertile ground to plant the concept of teacher as practitioner. Darling-Hammond indicated that, “Teachers need to be able to analyze and reflect on their practice, to assess the effects of their teaching, and to refine and improve their instruction” (Darling-Hammond, p. 7, 1998). Wink (2005) stated that, "critical pedagogy teaches us to name, reflect critically, and to act" (p. 23). For the most part, this message is permeating classroom walls, but not fast enough to keep up with the changing needs of today’s students.

As an educational leader and an elementary school administrator, I continue to see students taught through traditional, didactic methods. While many students are able to learn in this manner, this is not the most effective way for all students to learn, nor does it prepare them to be the collaborative, problem solvers that employers seek. While several educators within this learning community are aware of different teaching and learning style theories, few have the time to implement a formal learning style inventory to
determine each student’s own learning style. The Dunn & Dunn (1979) model of learning styles examines twenty different elements that influence an individual’s ability to learn. It takes into account environmental preferences, emotional preferences, sociological preferences, physiological preferences, and psychological (cognitive processing) preferences.

At the same time, there are teachers familiar with Gardner’s (1983) Theory of Multiple Intelligences, but lack a deep enough understanding to do more than superficially implement pieces of this work throughout the curriculum. Educational communities need to focus on how students learn, just as much as what they learn. “Educators should take the different thinking styles of learners into consideration and design a curriculum incorporating a full spectrum of approaches and perspectives for learning opportunities acknowledging the diversity in preferences” (Leonard & Straus, 1997). This would include planning rigorous lessons that may or may not initially target a variety of student learning preferences, along with administering appropriate formative assessments to gauge the level of student understanding and skill acquisition. As the instructor consults the data from these assessments, he or she may differentiate further depending on the need. Within this differentiated process, the teacher may wish to utilize Gardner’s multiple intelligences, or structure flexible groups based on learning style preference. This method would ultimately provide educators numerous options to ensure students receive instruction that is complimentary to their learning style, while minimizing the probability that one single form of teaching or one single avenue of learning might exist solely in the learning environment.
Teachers who can identify their own learning preferences and consider how they may affect their instructional style, I believe, will be more adept at addressing the individual learning styles within their classrooms. “Teaching style” often tends to correspond to how the instructor learns best, which partially explains why some teachers are traditional instructors and others are informal ones. Although one’s style may be ingrained and difficult to modify, it can be expanded to respond to varied learning styles—provided the instructor understands why one teaching style cannot be effective with all students and strives to acquire additional skills (Dunn & Dunn, 1979). As educators begin to identify themselves as individual learners, they may create a platform to understand the learning and teaching styles of the entire community in which they work. The professional dialogue and reflection that may emerge is an integral component in school reform.

Darling-Hammond’s idea that teachers need to be able to analyze and reflect on their craft highlights the paradigm of praxis necessary to equip our students for a future threatened by social and economic uncertainty. Connor (2004) describes praxis in the context of the nursing profession as, “a meeting and melding of theory and practice” (p. 55). Whether in the world of medicine or education, this perspective provides a philosophical vehicle for professionals to reflect on their interactions and engage in collegial dialogue necessary to improve their craft. I believe that this paradigm of praxis parallels the Constructivist Theory suggested by Jonassen (2004), which emphasizes authentic tasks in a meaningful context rather than abstract instruction out of context. Jonassen’s theory, because it emphasizes thoughtful reflection, becomes relevant to the experiences of teachers and students alike. Patton (2002) describes the process by which
qualitative evaluation researchers, “conceive of programs as dynamic and developing, with ‘treatments’ changing in subtle but important ways as staff learns what does and doesn’t work” (p. 54). He continues to explain the challenge in “describing and understanding these dynamic program processes and their holistic effects on the participants so as to provide information for the program improvement”.

The ideas of Darling-Hammond, Jonassen and Patton all illustrate that for teachers to be effective they must continuously reflect on their practice and feel confident enough to make necessary adaptations and modifications in order to refine their craft. Teachers need to recognize the importance of seeing themselves as researchers, as well as, practitioners. There needs to be a willingness to continuously improve and an understanding that the methods being used are timely and relevant.

Within my current district, my main focus as an educational leader is to improve teaching in order to raise student academic achievement. As the Principal of George T. Wilkins Elementary School, my goal is to engage teachers in professional, collaborative dialogue that promotes self-reflection and empowers individuals to develop a common definition of effective instruction. When describing a major difference between traditional positivistic research and action research, Lomax (1994a) highlights the concept that in action research the researcher intentionally changes the situation being studied. As the teachers reflect on their lessons and student progress, the data they gather along with the conclusions they reach will most likely have some form of impact on their teaching. In turn, if I am successful at this task, the teaching staff will be modeling not only quality teaching skills for their students, but quality learning skills, as well.

Hopefully, as teachers partake in the inquiry and as their understanding and awareness
begin to elevate, so will their abilities. As Stringer (2004) states, “As they participate in action research, people develop high degrees of motivation and are often empowered to work in ways they never thought possible” (p. 31).

Purpose of the Study

Like many educators who have endured difficulties throughout their own educational journey, I had hoped to help others recognize their strengths, especially those who may not otherwise have the opportunity to envision themselves as what Sternberg (1997) considered as successful. By conducting a qualitative case study analysis of innovation, creativity and 21st Century Skills as they relate to teaching in my district, I hope to gain a clearer insight as to how to improve our schools. Yin, as stated in Green et al., (2006), described the benefits of utilizing a case study; “Compared to other methods, the strength of the case study method is its ability to examine, in-depth, a ‘case’ within its ‘real-life’ context” (p.111). Case studies seek to understand the larger phenomenon through close examination of a specific case and therefore, focus the particular (Rossman and Rallis, 2003).

As I considered the questions that drove my exploration into this case study, I was guided by a belief that is often conveyed by educators, writers, educational reformers and politicians when discussing achievement in schools. It is the idea that it is the teacher who has the greatest influence on student achievement beyond any other factor. Obama expressed this sentiment in 2009 when he stated:

From the moment students enter a school, the most important factor in their success is not the color of their skin or the income of their parents, it’s the person
standing at the front of the classroom...America’s future depends on its teachers.

(U.S. Department of Education [DOE], 2011, p.1).

For this reason, I have developed the guiding questions for this study, centering on the attributes of the teacher, rather than that of the student.

Research Questions

*Primary Research Question*

The primary research question for this study is: What are the traits, attitudes and characteristics of teachers who are seen as innovative, creative and highly effective in Indian Springs School District 109?

*Secondary Research Questions*

The secondary research questions for this study include:

- What commonalities are evident in the teaching styles and practices of those staff identified as: creative, innovative and proponents of 21st Century Learning?
- What are the commonalities in pedagogy, philosophy and relationships that promote effective learning?
CHAPTER TWO: REVIEW OF LITERATURE

Introduction

To truly understand how to bring about meaningful change to the educational system, it is important to understand the theories of intelligence that have, over time, shaped this same system into what it is today. By highlighting key historical contributions to the field of Intelligence Theory and Modern Intelligence Theory, I hope to discover a connection to structures, relationships and events that have had an impact on my own education. I am further compelled to imagine what the schools of the future will not only hope to be, but need to be, in order to provide all students with an appreciation for learning. To try to predict what these futuristic schools will consist of may be more difficult today than it ever has been. Such rapid changes in technology make this a very uncertain task. Therefore, instead of considering what the future will hold, it is more important for schools to prepare students with strategies to solve whatever problems arise in the future. Many of the skills and strategies that have been identified as imperative for survival in the 21st Century are the same strategies that man has employed throughout all of history.

Intelligence Theory

Historically, psychologists have used psychometrics to measure intellectual aptitude and ways of thinking. Alfred Binet (Siegler, 1992) in an effort to create an assessment designed to determine the placement of students who would require special needs in school, developed the Binet-Simon scale. This assessment reported the student’s Intelligence Quotient (IQ), a mental comparison to their same-age peers. While this quantitative assessment gained worldwide popularity and variations of it have been
implemented for the past century in schools, Binet (1909) highlighted the importance of studying intelligence from a qualitative perspective (Siegler, 1992). Binet (1909, 1973) advised against seeing intelligence as a fixed quantity and argued:

A few modern philosophers…assert that an individual’s intelligence is a fixed quantity, which cannot be increased. We must protest and react against this brutal pessimism…. With Practice, training and above all method, we manage to increase our attention, our memory, our judgment, and literally become more intelligent than we were before. (p.105)

Spearman (1904) believed that a person’s intelligence could be represented by one single numeric measurement, a variable that he called the “g factor” (p. 36). By administering a multitude of assessments, Spearman (1927) used factor analysis to conclude that a subject’s score on one test could be an accurate predictor as to how well, or poorly they would score on another. Reymont and Joreskog (1993) defined factor analysis as:

A generic term that we use to describe a number of methods designed to analyze interrelationships within a set of variables or objects [resulting in] the construction of a few hypothetical variables (or objects), called factors, that are supposed to contain the essential information in a larger set of observed variables or objects…. that reduces the overall complexity of the data by taking advantage of inherent interdependencies [and so] a small number of factors will usually account for approximately the same amount of information as do the much larger set of original observations. (p.71)
Thurstone (1938) believed that there are seven independent factors that contributed to an individual’s intelligence, which he referred to as primary abilities (word fluency, verbal comprehension, spatial visualization, number facility, associative memory, reasoning, and perceptual speed). While he initially worked to disprove the existence of a general factor of intelligence, Thurstone later believed that intelligence was a combination of a g factor and the primary abilities he had presented (Ruzgis, 1994). This theory provided a foundation for several different theories of multiple intelligences that would later be proposed.

Guilford (1967) expanded this theory into what he called the Structure of Intellect or (SI) which subdivides Thurstone’s abilities into three subcategories: 1) an operation, 2) a content and 3) a product. Within the Thurstone’s operation category, Guilford introduced five additional subcategories: cognition, memory, divergent production, convergent production and evaluation. Guilford (1975) notes the particular significance of divergent production, as it would later evolve into what is more commonly known today as divergent thinking, or a manner of thinking that explores many possible solutions to a problem.

Cattell (1941) believed that Spearman’s “g” factor existed in two forms, fluid intelligence (Gf) and crystallized intelligence (Gc). Fluid intelligence represents a person’s ability to solve problems, while crystallized intelligence is more of the knowledge base a person acquires over time. He believed that these two could be used in tandem or independently depending on the nature of the problem to be solved.

Carroll (1993) introduced the “three stratum theory” (p. 437), which Sternberg (1999) described as:
Three strata consisting of general intelligence at the top [Stratum III], followed by seven group factors of intelligence in the middle [Stratum II]: fluid intelligence, crystallized intelligence, general memory and learning, broad visual perception, broad retrieval ability, broad cognitive speediness, and processing speed. Still narrower factors comprise the bottom layer of the hierarchy [Stratum I]. (p. 477)

Because of such similarities these two theories have since been combined into what is known as the Cattell-Horn-Carroll (CHC) Theory.

The results of these contributions to intelligence theory continue to inform educational experiences and opportunities for countless students throughout the country. These theories also help society to recognize, define and give value to the skills that it takes to be considered successful in school and in life. Leonard and Strauss (1997) explained that: “Educators should take the different thinking styles of learners into consideration and design a curriculum incorporating a full spectrum of approaches and perspectives for learning opportunities acknowledging the diversity in preferences” (p. 111). In terms of the study of intelligence factors, Moursund (1999) stated that:

The study and measurement of intelligence has been an important research topic for nearly 100 years. IQ is a complex concept, and researchers in this field argue with each other about the various theories that have been developed. There is no clear agreement as to what constitutes IQ or how to measure it. There is an extensive and continually growing collection of research papers on the topic. (p. 41)
Modern Learning Theory

Unfortunately, there are educators who continue to use outdated methods or lack the professional development opportunities needed to engage students effectively in the new millennium. Because advances in technology continue to accelerate learning opportunities, educators must place increasing importance on how to learn, as opposed to what to learn. Additionally, it is no longer appropriate to simply supply all learners with one model of instruction and expect this to be sufficient. Learning at all levels of a successful organization needs to be differentiated to the abilities of the stakeholders involved. Tomlinson (2001) suggested:

At its most basic level, differentiating instructions means “shaking up” what goes on in the classroom so that students have multiple options for taking in information, making sense of ideas, and expressing what they learn. In other words, a differentiated classroom provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively. (p.1)

What does it mean to “shake up” what is happening in the classroom? Student learning can be differentiated by content, process, product and environment (Tomlinson, 2001). This allows teachers to build on the strengths, background knowledge and past experiences of the students to facilitate their acquisition of knowledge, skills and comprehension. Allen and Tomlinson (2000) built upon the work of Russian Psychologist Lev Vygotsky (who believed that students do best in accordance with their readiness to do so.) MacKinnon (1978) contended that:
The wide range of individual differences surely must mean that there is no single method for nurturing creativity; ideally the experiences we provide should be tailor-made, if not for individual students, at least for different types of students. We should remember that the same fire that melts the butter hardens the egg. (p. 171)

Gardner (1983) supported a theory that there is not just one way to measure intelligence, but nine distinct components of intelligence that one may possess. These nine components are: Logical-mathematical, Spatial, Linguistic, Bodily Kinesthetic, Musical, Interpersonal, Intrapersonal, Naturalistic and Existential. Unfortunately, schools only offer limited exposure to opportunities that foster these intelligences. Students whose talents fall within this narrow area of what is offered are fortunate to experience success, while students whose strengths gravitate toward other forms of intelligence typically do not meet the expectations of their teachers and experience what the school, and subsequently, society views as failure. Sternberg (1986) also believed that intelligence is comprised of knowledge and skills from more than one area, which he refers to as his Triarchic Theory of Intelligence. The ability to think creatively, analytically and practically forms the basis for what he calls “Successful Intelligence. Sternberg and Gardner’s theories echo earlier studies by Thurstone (1938) and Guilford (1967), who attempted to draw a correlation between creativity and divergent thinking.

Since the adoption of the No Child Left Behind Act of 2001, regulations that support an annual standardized assessment have dictated how schools plan their curriculum. Educators have been charged with the task of improving student performance as measured by standardized assessments mandated by the federal
government while modifying their curricula to avoid being labeled as “failing” and not making “adequate yearly progress” (No Child Left Behind [NCLB], 2002). Many educators understand that the teaching and learning are both multi-faceted processes that engage individuals and groups in sophisticated relationships that revolve around building knowledge and understanding, as well as, communicating these ideas to others.

However, finding ways to teach and assess this type of knowledge is time consuming, expensive and as many feel, not indicative of what students really know. In the meantime, many states have since implemented snapshot style standardized assessments that by policy statement measure student aptitude, while stakeholders are held accountable for results that are not very indicative of true student ability. In other words, a one-day assessment may not be an appropriate instrument in determining the overall effectiveness of a school. There are, however, still educators who believe that the importance of teaching higher-order thinking skills far outweighs teaching techniques that narrowly focus on how to score effectively on these assessments, yet as Sternberg & Spear-Swirling (1996) have illustrated:

Teachers are often reluctant because of the specter of the need to prepare students for the various kinds of mastery tests or other achievement test the students will need to take. Teachers sometimes believe that teaching for thinking will undermine students’ performance on these tests, which, they believe, measure primarily mastery of facts rather than higher order thinking with these facts. Many teachers are reluctant to teach for thinking for fear that students will not be prepared for these tests. (p. 374)

In other words, these educators may see the value in teaching higher-order
thinking skills, but lack the confidence in relying on these skills to ensure students will pass the assessment. Au (2011) revealed:

> When we look at the research on how high-stakes testing is affecting US classroom practices [sic], it becomes quite clear that such testing is promoting the standardization of teaching that both disempowers and deskills teachers. For instance, due to the pressures exerted through policies associated with high-stakes testing, teachers are teaching to the tests with increasing regularity, consistency, and intensity. The most prevalent finding in the empirical research in the US is that high-stakes testing narrows the instructional curriculum because, to varying degrees, teachers shape the content norms of their curriculum to match that of the tests. (p. 30)

> Additionally, in a comparison between high and low performing schools, Langer (2001) found that higher performing schools had a greater focus on curriculum alignment, rather than test preparation and explained:

> Before a test, the format was generally practiced to ensure students' familiarity with it. However, not much teaching time was devoted to this. It was the infusion of the needed skills and knowledge into the curriculum that seems to have made a difference. Students were also taught to become more reflective about their own reading and writing performance, sometimes using rubrics throughout the school year in order to help them gain insight into their better or less well developed reading and writing performance in response. (p. 860)

She reported a converse situation for the lower performing schools where there was greater emphasis towards teaching to the test.
The reality is that while schools in the United States are focusing teaching strategies toward enabling students to achieve high scores on our own nationally mandated assessments; these same students are unable to apply these skills beyond the actual assessment. Silva (2008) referenced two studies, the Trends in International Mathematics and Science Study (TIMMS) and the Programme for International Student Assessment (PISA), which tested eighth grade equivalent age students from several nations including the United States. The TIMMS study reported that students from the U.S. scored above average, particularly in science. However, the PISA showed below average scores. This is concerning because unlike the TIMMS which measured math and science knowledge and performance, the PISA was designed to show how students are able to apply these skills to everyday problem scenarios. Sternberg (1997) described our schools as a closed system that rewards students who are better at memorizing and analyzing, as opposed to being practical and creative. According Sternberg’s Triarchic Theory of Intelligence (1985):

Human intelligence comprises three main aspects: analytical, creative, and practical. Infused into instruction and assessment, analytical tasks involve analyzing, judging, evaluating, comparing and contrasting, and critiquing; creative tasks involve creating, inventing, discovering, imagining, and supposing; and practical tasks involve implementing, using, applying, and seeking relevance (Sternberg, 1994a, 1994b). More conventional memory-based instruction involves memorizing, remembering, recalling, recognizing, and repeating. (p.196)
21st Century Skills

Today a rapidly changing global economy continues to put pressure on educators as to how to effectively prepare students for an unknown future. Richard Riley, Secretary of State under Bill Clinton forewarned that; “We are currently preparing students for jobs that don’t yet exist…using technologies that haven’t yet been invented…in order to solve problems we don’t even know are problems yet” (Trilling & Fadel, 2009, p. 3). Organizations are demanding that students emerge from their school experience with a different kind of skill set required to compete in this fluctuating arena.

According to Silva (2008):

The intellectual demands of 21st century work, today’s leaders say, require assessments that measure more advanced skills, 21st century skills. Today, they say, college students, workers, and citizens must be able to solve multifaceted problems by thinking creatively and generating original ideas from multiple sources of information—and tests must measure students’ capacity to do such work. (p. 1)

P21 (Partnership for the 21st Century), has established what it calls a “Framework for the 21st Century” in order to address “the gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21st century communities and workplaces”. According to P21 (2004), the goal is to fuse the 3 R’s with the 4 C’s. The 3R’s, which stands for: reading, ‘riting and ‘rithmetic are historic colloquialisms representing the typical core curriculum of English, reading or language arts, mathematics, science, foreign languages, civics, government, economics, arts, history and geography. Subsequently, the 4C’s consists of: critical thinking and problem
solving; communication, collaboration; and creativity and innovation. P21 (2004) refers to these four themes as the learning and innovation skills that separate students who are prepared for the complexity of life and work environments from those who are not.

To compete in the aforementioned “global economy”, students must be prepared to find solutions to problems that do not currently exist. Wagner (2008) warned: “The failure to give all students these new skills leaves today’s youth-and our country-at an alarming competitive disadvantage. Schools haven’t changed, the world has. And so our schools are not failing. Rather, they are obsolete—even the ones that score the best on standardized test. This is a very different problem requiring an altogether different solution” (p. xxi). Just as Wagner (2008) emphasized, the “global economy”, this same problem of globalization and education was predicted a quarter of a century earlier in A Nation at Risk (1983): “Knowledge, learning, information, and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier” (p. 10).

Nearly thirty years later and we not only face the same dilemma, but because of changes in economics, technology and an exponentially rising world population, the need to address these problems has become more critical than ever. Globalization and outsourcing jobs to countries that pay far less in wages are only part of the problem for our students. Technological advancements and automation in the workplace are also limiting the prospects for future success. Levy and Murnane (2005) reported that, “Those with strong skills do not have to worry about mass unemployment or underemployment. On the contrary: The great danger is the continuing decline in earnings opportunities for
people who lack the skills to do work requiring *expert thinking* and *complex communication*” (p. 80).

As changing times may pose significant challenges to the economy and the educational system, it should also be remembered that these are systems that are constantly in a state of flux, and they need to be. The educational system and business community have a strong link. They rely and influence each other. “Many people are surprised to learn that the skills required in most workplaces today directly correspond to those that are needed for success in college” (Wagner et al., 2006, p. 3). Schools hope to prepare their students to succeed after graduation by not only taking advantage of the opportunities that currently exist, but by creating new opportunities, as well. Businesses rely on the ideas and skills cultivated in the school system, with an expectation that students entering the workforce are prepared not only to work, but to improve upon current business models. Although many people see this rapid change as negative, contrarily, imminent change to our world stemming from advancements in the areas of technology, medicine, science and education can also be seen as opportunities. By adhering to outdated methods of instruction, we limit the capacity of students, and negatively impact their possibility of attaining success.

Kay (2010) believes, “the global economy with its emerging industries and occupations, offers tremendous opportunities for everyone who has the skills to take advantage of it” (p. xvi). To prepare for this new economy, Darling-Hammond (1998) explained, “Students need to be able to design, evaluate and manage their own work” (p. 33). This sentiment parallels Kay (2010) when he stated: "As a manager at Apple told me, any employee who needs to be managed is no longer employable" (p. xxi). Schools,
as well as businesses can no longer expect students and employees to accomplish tasks by simply following rote, low-level instructions.

Through his work with prominent organizational and business leaders, Wagner (2008) distilled what he calls the Seven Survival Skills for the Future. They consist of:


To remain viable, schools must put greater emphasis on teaching thinking skills. According to Dufour and Eaker (1998):

The factory model is woefully inadequate for meeting the national educational goals of today—goals that call for all students to master rigorous content, learn how to learn, pursue productive employment, and compete in a global economy. If educators are to meet these challenges, they must abandon an outdated model that is contrary to the findings of educational research, the best practices of both schools and industry, and common sense. (p. 23)

While it is a concern that schools aren’t changing as rapidly as they need to in order to remain relevant, it is a greater concern that many of our schools are not changing at all.

Reflective Practice

In order to remain effective, educators need to adapt with the changing times as quickly as its students. Drucker (1992) stated that, “every enterprise has to become a learning institution [and] a teaching institution. Organizations that build in continuous learning in jobs will dominate the twenty-first century” (p.108). Schools, as well as,
private organizations must change their focus from institutions of teaching to academies of learning. Roles within education must also be changed. School administrators for instance, can no longer focus the majority of their time handling discipline issues, or managerial tasks. These individuals must work to ensure their focus is on student learning, while transforming from manager to educational leader. Educators cannot continue to see knowledge and education as something to be passed down to students. They need to teach the skills for students to seek their own education. Educators must not only provide a rigorous curriculum, but also need to embrace the notion that to be successful in their profession, they must act as reflective practitioners who model the same inquiry they must expect from their students. Schön (1983) described reflective practice as a process of reflecting on action in an attempt to engage in continuous improvement, while Sparks-Langer and Colton (1991) described reflective practice in schools as:

> The shift toward an interest in reflective thinking has come about partly as a reaction to the overly technical and simplistic view of teaching that dominated the 1980’s. Gradually, however, experts in supervision staff development, and teacher education have begun to recognize that teaching is a complex, situation-specific dilemma ridden endeavor.…. Today, professional knowledge is seen as coming both from sources outside the teacher and from the teacher’ [sic] own interpretations of everyday experience. (p. 37)

To prepare students for a world that will require them to think critically, to create solutions to problems that have not yet been encountered, teachers must model their own learning processes. More and more, today’s universities are realizing that the days of
large lecture hall based classes are over, and are being quickly replaced by smaller group and project oriented classes (Rimer, 2009). Darling-Hammond and McLaughlin (1995) asserted that:

Teachers learn by doing, reading, and reflecting (just as students do); by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see. This kind of learning enables teachers to make the leap from theory to accomplished practice. (p. 83)

Around this same time Wolcott (1995) described a similar process critical to the effectiveness of teaching, “In reflecting, the practitioner tries to make sense out of an uncertain or divergent situation by questioning assumptions, reframing the problem, and constructing and testing new approaches” (p. 39).

By fostering collegial dialogue revolving around Best Practice and highlighting effective teaching techniques, staff members within my district are working to develop a common definition of effective instruction. This is not to be confused with creating one common method of instruction or one common instructional technique to be utilized with all students, but an agreed upon standard of performance, commitment and growth. It is a goal of the staff to create a culture that embraces dialogue intended to improve teaching and learning. This idea represents an on-going conversation among professionals within a learning community aiming to refine and improve their practice. Wagner (2006) defined culture as, “the shared values, beliefs, assumptions, expectation, and behaviors related to students and learning, teachers and teaching, instructional leadership, and the quality of relationships within and beyond the school” (p. 102).
Barth (1990) described how it is extremely difficult to have an effective school where the student learning curve rises, as the adult learning curve decreases. Whittaker (2011) explained that all teachers, no matter their level of effectiveness, have high expectations for their students. The difference, however, is that highly effective teachers have high expectations for themselves, as well. According to Whittaker (2011), less effective teachers often place blame on students, parents and other factors when their students underperform, while highly effective teachers look inward and reflect on their teaching.
CHAPTER THREE: METHODOLOGY

Introduction

The desired outcome of this work was to build capacity and enhance teacher capabilities by exploring effective and innovative teacher qualities, thus promoting reflective action. I felt that a case study model would provide the best method by which to identify those individuals who can be characterized as innovative and promoting 21st Century Skills in School District 109.

Case Study Methodology

As Patton (2002) indicated, “A rich variety of methodological combinations can be employed to illuminate an inquiry question. Some studies intermix interviewing, observation and document analysis” (p. 248). Rossman and Rallis (2003) stated that, “Interviewing, observing and studying material culture are the primary ways to discover and learn in the field” (p. 172). Just as the aforementioned authors recognize the importance of triangulating data sources, this study drew from varied sources of data. Bromley (1986) suggested that a case study may help get a researcher:

as close to the subject of interest as possible ... partly by means of direct observation in natural settings, partly by their access to subjective factors (thoughts, feelings, and desires), whereas experiments and surveys often use convenient derivative data e.g. test results, official records. Also case studies tended to spread the net for evidence widely, whereas experiments and surveys usually have a narrow focus. (p. 23)

Rossman and Rallis (2003) asserted that, “Qualitative research is quintessentially interactive...the researcher is involved, face-to-face, with participants in the study”
Qualitative research deals with two differing forms of validity, internal and external. According to Patton (2002), “internal validity relates to the extent that the research findings accurately represent the phenomenon under investigation” (p. 97), while external validity “relates to the extent that the findings may be generalised [sic] to the wider population” (p. 98).

Because this was a case study, internal validity was addressed in terms of accurately identifying and documenting outcomes from all participants, while establishing a sense of transparency in the data so that these same participants were also able to verify its accuracy.

Although there have been numerous research projects in relation to teacher effectiveness, this study was unique to the context of School District 109 and the community it serves. Therefore, to provide for internal validity, emphasis was placed on examining the effects of the study within this particular context. The research participants shared data and utilized peer debriefing as a way of checking for credibility in their analysis (Lincoln and Guba, 1985).

In turn, external validity depended greatly on the data collected throughout the process. A review of literature presented at the inception of the study provided the philosophical foundation from which to approach the research project, however, this literature review continued to evolve throughout the study reflecting the findings and evidence collected by the participants.
Through the utilization of a case study to identify qualities of innovative teachers within my district, the intent was to create an exploratory research project that not only highlighted these characteristics, but explained them as well. Yin (1994) stated:

The first and most important condition for differentiating among the various research strategies is to identify the type of research question being asked. In general, “what” questions may either be exploratory (in which case any of the strategies could be used) or about prevalence (in which surveys or the analysis of archival records would be favored). “How” and “why” questions are likely to favor the use of case studies, experiments of histories. (p.7)

As a means to this end, the following questions drove my inquiry:

Research Questions

*Primary Research Question*

The primary research question for this study was: What are the traits, attitudes and characteristics of teachers who are seen as innovative, creative and highly effective in Indian Springs School District 109?

*Secondary Research Questions*

The secondary research questions for this study included:

- What commonalities are evident in the teaching styles and practices of those staff identified as: creative, innovative and proponents of 21st Century Learning?
- What are the commonalities in pedagogy, philosophy and relationships that promote effective learning?
Participants

The participants in this study included five classroom teachers identified by their colleagues as being innovative and creative. The selection process for the study consisted of a one-page, voluntary survey (Appendix A) distributed to all certificated classroom teachers within grades three to six in each of the district’s four elementary schools. These classroom teachers were prompted to identify innovative and creative classroom teachers within the district, adhering to the same grades three to six criteria set forth in the initial selection process. These teachers were also given the option to identify multiple colleagues, as well as themselves, if they desired. Five female elementary classroom teachers were selected by colleagues to participate in this study from three different sites. Two were from Site L, one was from B and two were from Site W. Classroom teaching experience ranged from two to nine years.

A similar questionnaire (Appendix B) was administered to the principals of each building, with the option of identifying one or more individuals throughout the district following the same criteria as the teacher survey. An additional question prompting principals to infer whom parents and community members might identify as innovative and creative was also included in the survey.

Once the surveys were collected, participants were considered by the number of times they were identified, along with other criteria such as the results from the principal survey and interest in participation, for example.

The four research sites were also a factor in participant selection, as a higher incidence of identification from one particular school, may have been an indication to increase the focus at that location to determine why.
Following the initial identification process, the researcher contacted each potential participant to further elaborate on the context of the study. Once selected, all participants were invited to an informational dialogue to explain the scope of the study, and given the option to continue if they so desired.

Data Collection

Data for this study was drawn from several sources: teacher interviews, student interviews, researcher observations and artifact analysis. All data collected such as audiotaped recordings, document samples and anecdotal notes was stored in a secured file within the researchers office.

Interviews

Each of the classroom teachers individually participated in a thirty to forty minute interview by the researcher (see Appendix C). These interviews were conducted early on in the investigation, and questions were open-ended in nature to avoid dichotomous answers. Patton (2002) described, “The truly open-ended question permits those being interviewed to take whatever direction and use whatever words they want to express what they have to say” (p. 354).

Once transcribed, interviewees had the opportunity to review the transcripts for clarification purposes. Additionally, each participant was given text copies of all five interviews, along with the audio versions of the interviews in digital format on audio disc. Each of the participants was encouraged to listen to, and read the interviews and extrapolate common themes throughout. The idea of listening to the interviews was emphasized, as the researcher felt it important that the participants hear the emotion and inflection during the interview process.
Each participant was provided a reflection sheet to document their findings, and was also encouraged to annotate directly onto the transcriptions if they chose to. Once all individual interviews and observations were conducted, the researcher further analyzed the themes and conclusions with the participants and invited the participants to one more group gathering. Once there, participants had the opportunity to refine, clarify and dialogue about the information being presented.

Observation

The researcher conducted informal observations to provide a clear illustration as to what was taking place in the classroom and generated what Ryle (1971) and Geertz (1973) described as thick description or very detailed accounts of what took place during the study. Denzin (1989) explained:

A thick description ... does more than record what a person is doing. It goes beyond mere fact and surface appearances. It presents detail, context, emotion, and the webs of social relationships that join persons to one another. Thick description evokes emotionality and self-feelings. It inserts history into experience. It establishes the significance of an experience, or the sequence of events, for the person or persons in question. In thick description, the voices, feelings, actions, and meanings of interacting individuals are heard. (p. 83)

By engaging in the use of thick description, I hoped to tap into detailed explanation of how and why certain phenomena take place in these classrooms, as well as, to get a greater understanding of each teacher’s historical experiences, influences and personal narratives that continue to shape their teaching. Creswell and Miller (2000) further explained:
The purpose of thick description is that it creates verisimilitude, statements that produce for the readers the feelings that they have experienced, or could experience, the events being described in a study. Thus credibility is established through the lens of readers who read a narrative account, and are transported into a setting or situation. (p. 128)

During these classroom observations the researcher observed and interacted with the participants to gain a better understanding of what makes their classroom environments, techniques and teaching styles remarkable. Carlson (2010) noted:

Qualitative inquiry involves the investigation of uniqueness – of unique individuals, groups, and phenomenon – each situated within unique contextual settings. Although qualitative researchers are not concerned with inter-study replication, they are concerned with corroborating or substantiating findings over time across similar situations. (p. 1104)

By utilizing thick description, the researcher searched for deep meaning and relationships that might normally go unnoticed to an uninformed observer.

**Documents and Artifacts**

In addition to interviews and observations, providing participants the opportunity to share artifacts such as lesson plans, reflections, influential books and notes and what is generally described in archeological terms as material culture (Ryle, 1971), gave the participants and researcher additional avenues to collect meaningful data. Woodward (2007) described a central assertion regarding material culture studies:

A primary assertion of MCS is that objects have the ability to signify things – or establish social meanings – on behalf of people, or do ‘social work’, though this
culturally communicative capacity should not be automatically assumed. Objects might signify sub-cultural affinity, occupation, participation in a leisure activity, or social status. Furthermore, objects become incorporated into, and represent, wider social discourses related to extensively held norms and values enshrined in norms and social institutions. (p. 4)

As the researcher I explored the different values and meaning these artifacts may hold within the individual classrooms being observed, to understand if this material culture impacts teaching. Furthermore, I investigated if these components had any discernable relationships, which could be generalized between classes.

Data Analysis

Once the study began, data analysis was an on-going, multi-step process. Data was analyzed both formally and informally to determine how it should best be organized to help the overall construct of the study design. Rossman and Rallis (2003) describe the process of data analysis as:

Analyzing and interpreting qualitative data is the process of deep immersion in the interview transcripts, field notes, and other materials you have collected; systemically organizing these materials into salient themes and patterns; bringing meaning to the themes to tell a coherent story; and writing it all up so that others can read what your have learned. (p. 270)

By examining the data collected, I searched for common emergent themes and patterns that when brought to the forefront added value and a deeper understanding to the context of the study. The themes and conclusions that were extrapolated from the data
served as a basis for the creation of follow-up questions to be posed at the final group meeting.

Ethics

As I considered the scope, sequence and possible ramifications of this inquiry, the issue of ethics became a paramount concern and an obvious priority. Foremost, I felt it was important to thoroughly explain to the participants and the educational community at large the purpose of the study and how it might impact the school. In terms of confidentiality, students were able to identify themselves via a numerical identification system or a pseudonym. Staff were also able to partake using a pseudonym, however, as one of the goals of the study was to promote collaborative dialogue and stronger collegial partnerships, this may have deterred some from participating.

While it was a hope of the researcher that the study would promote learning and professional growth, it was also understood that the researcher held an evaluative position within the district. Although as an educational leader, my role within the context of Wilkins Elementary and as an administrator in the district was to promote effective teaching practices, there was also awareness that participants may require a great amount of confidentiality, respect and justice, especially in regard to discussion of their teaching practices and the achievement of their students. The researcher conducted the study in compliance with National-Louis University’s policies and procedures for conducting ethical research involving human participants.

Limitations

While the design of this study was deliberate in the sense that it was constructed around a small group of five teachers, certain limitations did present themselves as the
study progressed. The first limitation was that of time spent in the respective classrooms. As the study was spread across three different campuses, access to the classes was not always equitable.

Along these same lines, the design of the study allowed for teachers from grades three to six to participate, and while it was informative to have a diversity of grade levels presented, choosing one grade level to focus on in order to limit variability may be a consideration for future research.

Another possible limitation on the study would be to consider staff willingness to participate in the member-checking portion of the study. After the interview session with Stacy, the researcher made an alteration to the methodology in order to take advantage of her enthusiastic request to investigate the responses of the other participants. Although she was excited to take the study to another level, the researcher cannot be sure if all five participants agreed because the study had already begun, or if they did not want to be seen as unwilling or reluctant to participate.
CHAPTER FOUR: FINDINGS

Introduction

The purpose of this study was to investigate the traits, attitudes and characteristics of teachers who were seen as innovative, creative and highly effective in the context of a mid-size suburban school district.

To study this, I conducted five individual teacher and four student interviews along with classroom visits over the course of a six-week period. Once completed, I compared the transcriptions of all five (teacher) interviews to distill six common themes.

While this is not an exhaustive list on the topic, and surely many more themes could have been arrived upon, the themes below account for those that I felt were most significant in the context of this study. They are as follows:

• See the Teacher as Lead Learner
• Encourage Learner Reflection
• Foster Class Community and Relationships
• Give Students Choice To Instill Ownership
• Employ Project/Problem-Based Learning
• Make Connections to Real Life
• Encourage Teacher and Student Collaboration

Once this process was complete, all of the teacher participants were invited to a final discussion of the study to share any relevant insight they gained from participating in the study. In addition, field notes and student interviews were also analyzed to support the themes.
Theme One: See the Teacher as Lead Learner

Throughout the interviews and during observations, the participants conveyed experiences that they had with their own teachers throughout their academic career; along with aspects of the type of teacher they aspired and envisioned themselves to be. Moreover, each of the teachers discussed how they learn. When Courtney was asked, “Where does your learning come from?” and “How do you find the time?” she responded by describing her passion for learning. “Oh, I’m learning all the time. If feel like I learn from the kids constantly. Teaching is such a reflective process; or at least I try to make it as reflective as possible. I’m learning on a daily basis with them.” This concept of learning not only from, but also with students is abundant within the study. Furthermore, it reflects the ongoing learning described by Darling-Hammond and McLaughlin (1995), where it is necessary for teachers to derive their own learning from multiple sources such as books, colleagues, students and their own reflections. Shortly after my observations had ended in the classrooms, I stopped in to see Courtney who I found reading a book on leadership. When I asked her what prompted her to read that particular book, she said that someone had mentioned it in her graduate course and she decided to seek it out on her own because it sounded useful.

A common trait shared by the teachers was that learning is a process and an experience that they help facilitate with their students. Many traditional perspectives view teaching as the teacher simply “delivering instruction” to his or her students, as a neatly packaged item. The participants in the study understood that teaching is not an act unto itself, but more an act of modeling the learning process for their students. April, a
student in Courtney’s third grade classroom, when asked about her teacher’s teaching style expressed:

She was always fun and she thought of new ways to do things. And let’s say uh, if kids didn’t catch up to what other kids did, she could, she would have ideas for them to catch up to other kids, but like in different ways.

The participants consistently reported the need for interest to be present on the part of both the teacher and the student to promote motivation to learn. As Katie explained when asked what influences her learning, “I think when I’m excited about something, I mean there’s a lot of times I go to meeting and things and I’m just tuned-out because I’m a little bored. So even in here, I learn from them every day and I don’t even expect to.” While this statement incorporates several of the themes such as, student choice and making real life connections, I felt that when a teacher learns from his or her students’ interests, it adds relevance to the community. As the teacher validates the topics and themes that interest or concern the class, this increases the chances that students will feel more connected (Deci and Ryan, 1985) and thus, increasing their motivation to learn.

If educators hope to create engaging lessons for their students, they must learn to express their own motivation and passion for learning. According to Wlodkowski and Ginsberg (1995):

Engagement is the visible outcome of motivation, the natural capacity to direct energy in the pursuit of a goal. Our emotions influence our motivation. In turn, our emotions are socialized through culture—the deeply learned confluence of
language, beliefs, values, and behaviors that pervades every aspect of our lives.

(p.1)

The notion that an effective teacher is continuously learning from his or her students was a presupposed expectation for the researcher. However, the vital link in these examples is that each of the teachers redesigned and rebuilt their class community with her students each and every year. This is significant because the dynamics of the group change from year to year, and for an educator to remain viable, he or she must adapt the learning environment and experiences. This ties together the students’ sense of ownership within the classroom community.

For example, Amy described the different tables in her classroom, referring to the middle table as “our meeting place”. When talking about a different table she said, “We call that the island”, as opposed to, “I call that the island”. Amy’s use of the word “we” implied that she considers herself a member of her classroom community along with the students. There is a shared understanding of what each area is for, and the students played a part in structuring and naming the learning environment. Later, Amy told me that the previous class did not refer to the same table as “the island”, even though it served a similar purpose. There is a certain element of reinvention that effective teachers must employ with every new class to keep themselves, and their students fresh and motivated.

While there are many examples of the teacher modeling the learning process for his or her students, in this case, the most fruitful learning that can be done by the teacher is to learn about her students. Stacy described this process:

Every year I feel like, “Why do I keep changing the wheel?” “Why do I keep reinventing the wheel?” “Why don’t I just do what I did last year?” Every group
is different, they all want to learn different things and so every year I teach
different parts of you know, the Civil War, because one class was super excited
about the battles, and another class was into the slavery aspect. Last year they
were all about the artillery and very respectful about it, but it’s just what
fascinated them so that’s where I went with them.

Purposeful modeling of behaviors and attitudes were very apparent within the five
classrooms. The teachers regularly took the time to explain how they felt, whether it was
directed to the content of the curriculum, such as how they thought the main character in
a story felt, or to explain how they perceived a social scenario occurring in the classroom.
Regardless of the context, taking the time to express their own perspective and their
reflective process made the teachers more transparent to the students, and maximized the
likelihood that they would make constructive decisions in the future.

Theme Two: Encourage Learner Reflection

One of the major correlations between student choice and the reflective process
that guided each of the learning environments was the use of language. Each of the
participants modeled specific and directive language that guided their students’ decisions.
Often there was a directive given to a student or the class, and it was either accompanied
by a choice or an opportunity for reflection. The teachers in the study understood that
students need the autonomy to make their own decisions, while also needing time to
reflect on the choices they made. By inviting their students into this reflective space, the
teachers taught the practice of reflection that Darling-Hammond (1994) felt integral to the
refinement process.
During one visit to Stacy’s classroom, I found students working on a class project while Stacy stood in the middle of the room observing. The students were engaged in different areas; computer-work, graphic design/brochure work, stage design, costumes, etc. Each time a student approached Stacy for her opinion, she responded with a question that led the student to reflect or conduct his or her own critique. While Stacy continued to explain to me the similarities between this project and a Civil War project they had just completed, she simultaneously interacted with several different individuals. During this discussion, Stacy retrieved a large civil war poster board from behind her desk that was completed by two other students the week before. She showed it to me as an example of a differentiated product that the students had collaborated on, while using it as a model to spark another group’s creativity. For both of our purposes, Stacy noted certain features of the poster and linked them to predetermined criteria that were used in the grading process. Just then, as one student was having difficulty working on the stage curtain, Stacy asked:

“Do you need a hole punch, will that help?” She redirected another student asking if he “needed something to do”. When a colleague returned some resources to her desk Stacy said, “Thanks for putting up with our noise!” which garnered a friendly smile and wave from her teaching neighbor. Quickly, another student presented what she was working on, Stacy examined it and said, “My concern is…” drawing some attention to possible weakness in design, however, told the student to “try it out…see how it goes”. When asked by another student to comment on a piece she was designing for her group, Stacy replied, “That is a good idea, try it and see what you think?” At this point I heard Stacy asking
another group, “Would you guys work easier if we cleared off desks, or would you prefer…” The students nodded and moved their artwork, until Stacy raised her hand and the class quickly came to order. All of the students became quiet and gave her their attention. In a calm tone, she said, “It is a little after 10:30, at 11:00 I want to clean for lunch…decide what is worth continuing.”

Statements like this were particularly remarkable in the magnitude of information and meaning it conveyed to the class. The comment not only informed the students of the time, it also conveyed the teacher’s expectations for the next thirty minutes, and most significantly, it ended with the empowerment of the class to decide what tasks are worth continuing. The verb “decide” resides into the evaluate category of Bloom’s Taxonomy, one of the highest levels of cognitive engagement.

When Katie was asked if there are opportunities for student reflection in her classroom she explained:

I always try. When we do projects, I always try to have them do a self-reflection and a peer reflection so we were doing Book Club and they have sheets where they get to grade each other and also themselves. So, I think that’s another piece of taking ownership in their learning…at the end of each quarter we reflect on what we did that quarter, if we can do better. We talk all the time about just how we’ve been that day, behavior-wise and things like that. How we can change. Utilizing the ability to reflect may also build collaborative relationships for teachers and students. When Amy was asked what influences her own learning she stated:
I try to think of when I was a student. The thing is I loved school, and I still do. So I try to think of what my favorite teachers did, and of course Pinterest. I kind of take a little bit from everything, from my childhood, what I see now, what maybe other teachers are doing and kind of tweak it for my own classroom environment.

On a different day during a read-a-loud in Courtney’s classroom I noticed a prompt written on the blackboard that read: I think so...because. This served as a subtle clue that students in the class were expected to reflect on what was being read and would share and explain their thoughts. As I ambulated through the classroom, I noticed that the students were already well versed in folding their papers into sections and labeling each section to organize their thoughts and supporting proof.

The theme of reflection permeated all of the activities within these classrooms. Students were encouraged to reflect on their work, their relationships and often their behavior, which had a strong influence on the positive sense of classroom community. No matter what the project or activity taking place, a major factor in each of the classrooms was the teachers’ willingness to not only model respectful relationships, but to take time and teach how to respect each other as learners.

Theme Three: Foster Class Community and Relationships

While each of the different classrooms was a community unto itself, they all shared commonalities. Early on in the investigation I had made note that a remarkable aspect of each classroom was that it was set up to accommodate the students rather than the teacher. While I thought this was a remarkable aspect, I wasn’t surprised, since experiencing the teachers’ student centered philosophies. However, after spending time
in all of the classes and getting a deeper understanding of how the teachers and students interact, I would say that the spaces are designed to accommodate learning rather than teaching. This concept is not a classroom procedure or rule. It is not something that was written on the blackboard or on the overhead projector. In each of the classrooms, in this case, the teacher and students shared a synergy around the learning.

During the first visit to Katie’s classroom, I had mentioned that my intent was to make my visits as informal as possible to not disrupt the students’ learning. That is when Katie expressed, “That’s not a problem; most of the students won’t even notice you are there, or will keep on working. They will probably ask you for help.” To the contrary, each time I stepped into the class to observe, I was either greeted by a student who was very eager to share what the class was working on, or felt compelled to “catch me up” on what was going on, as if I was one of their classmates who had been absent for a time. Some actually did ask me for help.

Students in all five classes had the autonomy to move about the class, kneel on their seats or stand while working. There is a bit more freedom than a traditional classroom in the sense that students can manipulate the environment in order to benefit their learning experience. The space in all of the classrooms was seen as shared. Students are free to maneuver about the room and utilize classroom resources when needed.

One interesting observation I made in several of the classrooms was the preponderance of non-verbal communication that took place between the different teachers and students throughout the time I was observing. Students would often make
hand gestures, such as holding up a pencil to ask if it could be sharpened or another signal to indicate that they had completed a task and were moving to another assignment.

These non-verbal cues were quietly acknowledged by the teacher without detracting from the work she was doing with another group of students. Once again, providing evidence that procedures and routines were already in place to help facilitate the classes’ work. These procedures replaced the rules of traditional classrooms; rules that usually come with a yes or no answer, and do not easily accommodate all of the different classroom situations that arise. All of these subtle interactions between the teacher and the student gave me an indication that the learners had some latitude to decide how to best accomplish the task at hand.

Students in these classes were considerate toward their classmates, grabbing paper, pens, books and carpet squares for each other. Often if there was student misbehavior, it didn’t seem as though the student was in trouble with the teacher, but more accountable to the class, as the classroom climate and community did not support or condone the behavior. Because all of the classrooms had agreed upon student and teacher expectations, whenever a student engaged in behaviors that detracted from the culture of learning, the teachers would turn the situation into a teachable experience or opportunity for reflection.

A major aspect in fostering class community and developing relationships within the classroom dealt with sharing and utilizing resources. For the most part, the classroom resources were seen as tools to aid learning, and the students were expected to think creatively as to how they would be used. One of the most critical resources was time. The teachers in each of the grades frequently thought aloud in terms of how to prioritize
the time the class had to engage in lessons, projects or class work. Likewise, during these time management conversations, students were encouraged to help in the prioritization of time allotment for the work. By doing this, the teachers embedded student ownership in the learning, while strengthening the class community by creating a common goal around the work and how and when it would get done. The teachers all taught the students how to look at everything as a resource toward learning, along with how to manipulate these resources to promote, rather than hinder their learning. Courtney demonstrated this during a read-a-loud to her class:

At one point, Courtney decided that the dust cover from a book was impeding her as she read to the class. She simply told the class, “It was getting in the way” and kept on reading.

Not only does this modeling show students how to manipulate the resources and environment to aid in their learning, it also supported the sense of entrepreneurialism that Wagner (2008) promoted within the classroom.

In terms of classroom resources, time and space are typically two that come at a premium in any school. Although each student had his or her own desk, space in each classroom was regarded as communal. Areas designated as the teacher’s desk had an ambiance of trust in that students were allowed to utilize the resources on them. In another classroom the teacher chose to not have a desk at all, but opted instead for a long table that she positioned in the middle of the room. This area was seen by the class as a communal space to access freely. Because classroom activities require much movement, students felt free to sit in each other’s chairs and work at each other’s desks.
During an observation in Amy’s class, I had noticed an absence of the teacher’s desk. Instead, Amy’s class was structured around a long thin table that is set in the middle of the room. When asked about it, she replied:

I got rid of my desk at the beginning of the school year because I just think it’s a junk pile; that’s where you throw things, so I have three tables. I have one in the middle and that’s where the kids come or usually I do my read a-louds; that’s where I sit in the morning and talk to them. So I think that’s our meeting area. And then we have another table that we call the island because it’s all by itself so kids go back to the island and do math centers. Even during math, if one of them doesn’t want to sit at their desk, they can just come to the center table and they know it doesn’t bother me. They need to be where they’re comfortable.

Tyshaun, a student who had been in Amy’s class for both second and third grade, recalled that his teacher laughed a lot and made learning fun by teaching in different ways. He also added that he enjoyed the class because everyone supports each other.

Originally, as an observer I was looking at the class more from a physical standpoint. How were the desks organized? How were the students situated in relation to the teacher, the blackboard or each other? What kinds of resources were being used? However, as I spent more time in these learning communities, I began to see that the standards and curriculum which are often the only main focus for many teachers were secondary in these classrooms. That is not to say that these concepts were not taught, but were taught in parallel with more abstract concepts like respect, acceptance and kindness. Each of the teachers employed a great deal of Social Emotional Learning within their
classrooms. The students in these classrooms saw the space as a place they shared with the teacher. Sergiovanni (1994) believed:

> At its best, inquiry and learning do not recognize bureaucratic boundaries of roles and hierarchies. One must be free to take risks, free to be oneself. Inquiry, for example, requires a certain openness to new ideas, a certain willingness to suspend judgments, and a certain readiness to travel the path once inquiry opens.

Inquiring together requires true reflection and authentic dialogue. (p.154)

In order to achieve this authentic dialogue and reflection mentioned by Sergiovanni (1994), Liz also found herself retooling traditional classroom protocols to promote a sense of community in her class. During whole class instruction, Liz often could be found in the center of the classroom working from the document camera or laptop projector. The students in the classroom rarely would go to the chalkboard to demonstrate a skill, but seemed very comfortable joining Liz at the document camera cart. When I saw this, I immediately thought that this restructuring of the classroom protocol negated much of the embarrassment of standing isolated in front of the class. Each time a student approached the camera cart they were prepared to explain their rationale to the teacher and class. Usually, students did not come up until they were ready. Going deeper, I feel that this simple twist in procedure shows respect for the learner. In many classrooms students are told to go to the blackboard and “figure out” some sort of problem; traditionally, a measure of humiliation and solidarity typically bestowed upon the least prepared student. By inviting students to the center of the classroom to work, Liz stands beside the student to guide him or her, while they are enveloped and supported by classmates.
The sense of community in the classrooms is a significant part of the students’ day, and maintaining positive interactions between the community members, is an ongoing process. Katie explained, “I think a lot of it is how you relate to kids. I think you could be a really good teacher, but if you don’t have a connection with them, they just don’t care.” Katie elaborated about how she starts at the beginning of the year getting to know her students, asking personal questions about their families and sharing her own personal stories. “Every time I tell a story about my husband or dog or my friends, they are so interested and it’s not even a good story. So it’s funny, because anytime you talk about yourself, they are all ears.” At the conclusion of the study, Katie was asked what she remembered about her favorite grade school teacher, she expressed to the group that as a student she didn’t really remember that much about the curriculum that she was taught, but how her teacher made her feel.

Attempting to foster a sense of community with young learners can be a challenging undertaking for any educator, especially when promoting hands-on, project-based learning experiences. These progressive opportunities for student discovery increased the need for student interaction, collaboration and cooperation, which in turn, sometimes increased the likelihood of inter-student tension. The participants acknowledged this as a necessary evil that exists when teaching “outside of the box”, and safeguard against it by teaching appropriate ways to deal with classroom conflict. Stacy explained:

Because I’ve had groups…where it would be easier for me to come and teach out of a book, and use worksheets because there are a lot of behavior issues I’ve had
at the beginning of the year. So really taking the time to teach teamwork to allow a teacher to do more than what is easy.

When asked about modeling respectful relationships for her students, Amy described how she models positive behavior with her colleague across the hall:

I think my students know that I expect them to get along and that we’re all friends no matter their differences or their similarities. I try to express to them that that’s going to happen in the real world…that when they are speaking to each other in an not appropriate way, I use the reference; “Do you see me talking to Ms. K. that way?”

While there is a great deal of social emotional themes taught in these classrooms, the one that seems to have the greatest significance is trust. Trust between all members of the learning community is critical for classroom success. While I did experience a feeling of trust as an observer, it should be noted that I did my observations at the very end of the year and the class had spent a considerable amount of time developing this trust.

During one observation a student informed the teacher that she did not have her uniform for an after-school activity. Stacy directed the student to the teacher’s desk and allowed her to use the teacher’s personal cell phone to call her mother. The interaction was very quick, the call was made and the student acknowledged that her mother was bringing the uniform to the office. Both quickly went back to the task they were previously working on. I found this to be a very interesting exchange, partially because the trust factor that the teacher felt to allow her student to use her own personal phone to call, and partially because no other student even commented on her using it.
Later when I mentioned the call, Stacy informed me that she calls her students parents regularly so often, that it is really a non-issue. They appreciate her efforts and respect her privacy. When I mentioned this incidence to all five participants at our final meeting, they all agreed that this type of occurrence happened regularly in their classes. They described a sense of sharing and trust in the classrooms, enough that this type of happening was a non-issue, in so that, it happened so frequently that it became the norm and unremarkable to others in the class.

This atmosphere of trust and respect helped to create a class community where the students felt a strong sense of ownership, not only of the classroom, but also of the learning.

Theme Four: Give Students Choice to Instill Ownership

Throughout the individual teacher and student interviews, a theme that was particularly noteworthy was student choice. Each of the participants acknowledged the need to let their students be active participants in their own learning, and gave their students some form of choice whenever possible. The ability to have choice and control over their learning often gave the students a sense of ownership. For example, just as Guilford (1959) described the difference between convergent and divergent thinking, there is also a difference between convergent and divergent questions. Like convergent thinking, convergent questions taper one’s thoughts to finally conclude on fewer or single answers. On the contrary, divergent questions typically result in a multitude of answers and often, additional questions being generated. While it is essential for both types of questions to be present in an inquiry, in the participants’ classes there seemed to be a greater amount of divergent questions represented. By structuring more divergent
questions into each lesson, the teachers provided a platform from which students interjected their own questions, ideas and imagination. Allowing the students to have such input gave a sense of control and ultimately, more ownership.

There were many instances that I noted in which teachers purposefully designed learning experiences to incorporate opportunities for students to expand the lesson through their own insights, experiences and inquiry. I experienced this one afternoon when I met Liz’s fifth grade class doing observations in the school courtyard:

As I approached the group, several students greeted me, and were eager to tell me that they were on a scavenger hunt through nature. Working in groups of two or three they shared a list of things to look for while outside. The purpose of the scavenger hunt was to have students look for evidence of the food chain within the courtyard. In addition to the food chain related questions, there were also general observational questions meant to afford all students the opportunity to contribute. The group was excited because they had just seen a small snake sliding across the cobblestone walk. Back in the classroom, Liz asked the students to share what they had found. Morgan shared that Miriam found an interesting piece of fuzz that they could not identify, while two other students shared that they found a “chewed-up” piece of leaf.

There were several aspects of the discussion session that I found significant. Initially, all students were encouraged to share their observations, eliminating the need to determine if any of the contributions were correct or incorrect, being that they were simply observations. Throughout the discussion, Liz toggled between convergent and divergent questioning techniques, asking convergent questions to tie the students’
observations back to the food chain and choosing divergent questions to expand their thoughts about how the food chain might relate to their observations. By utilizing the students’ observational data as the springboard for the conversation, Liz built a sense of ownership into the discussion, as the students in a way, created the content.

In her reflection sheet, Courtney refers to the elements of student choice and ownership as “huge themes” that she noticed throughout all of the interviews. Stacy also felt that by creating a project-based classroom, her students have a higher degree of control over their learning.

While giving students choice during major class projects may be an overarching philosophical theme that guided the groups, subtle examples of student choice were present in these classes, as well. Students in Stacy’s classroom are greeted with a “Morning Menu” written on the board with academic activities they can choose. This simple deviation from an agenda or a schedule reinforced the idea that each student has a voice in his or her learning, and that academic experiences that are chosen are often more motivating than those that are assigned. Katie explained how she uses student choice to tap into her students’ interests in order to increase motivation. She explained her feelings on student choice:

I think that’s important…allowing them to work with other people, allowing them to do things that aren’t the regular, like just the pen and paper thing. If they want to make a PowerPoint or if they want to show a poster, I kind of like to give them the option, because then they’re more interested in it, and they feel like they have some kind of power over their learning; that’s important.
When describing how people are motivated, Ryan and Deci (2000) explained that autonomy and connectedness were the two of the three essential components of what they called Self-Determination Theory, a theory that illustrates the factors that foster intrinsic motivation. By allowing students autonomy in how they work and what they study, students are more likely to be motivated. Furthermore, by having a sense of control over their learning, there may be a greater likelihood that the students will feel more connected, as well. Amy explained how her students are included in the decision-making process within the class:

I feel it’s letting the kids choose a lot of their decisions. I think they should have a say; it’s not my classroom, it’s theirs too. I feel like if they have a say in their learning and decisions on things, they connect better. It’s a buy-in for them. They don’t think I’m there going, “Okay, do this, this, this and this.” So usually, if I give them a project, they can create whatever they want with their project. They can choose their topic. I mean, of course, I kind of have to guide them, but I think if they have a choice then they feel more connected to the activity.

When asked to describe why she thought her colleagues identified her as an innovative teacher, Liz explained:

I feel that they might see me that way because I think outside of the box with projects and I don’t give a lot of worksheets. Worksheets, I just see as kind of reinforcement, to test them to see if they understand. We do a lot of group projects and its more student centered in the classroom; where the students, my students lead the discussions. I try to pull myself out of the situation and just be the facilitator.
When asked what being innovative and creative meant to her, Courtney reflected: “I guess it means pushing the envelope I’d say; not really sticking to you know, pencil and paper and right with what the textbook says and really trying to incorporate even sometimes things that aren’t as comfortable to you.”

Stacy explained that being innovative and creative meant, “Just thinking outside of the box, being able to let go of what’s easy.” Later in her interview when asked what influences her own learning, Stacy mentioned:

I know you have to follow the curriculum, but it’s more so thinking outside of the box. How can you teach nouns, verbs and adjectives where you hope the lesson sticks with the students? I actually just taught verbs about two weeks ago. They had pipe cleaners and they had to make a pip cleaner action figure and write a little story about what the verb their pipe cleaner was trying to do. So just trying to make those lessons come alive and see it more as not just, “Here is your worksheet, let’s do it. Let’s get it over with and let’s move on.”

A large part of this work was defining and understanding what exactly was the educational “box” that innovative teachers felt the need to be free of. DeBono (1970) expressed that when people solve problems by changing their perception of the problem, they become uninhibited by their assumptions and perceptions, thus freeing themselves to not only see the problem differently, but to see solutions that did not previously exist.

While DeBono (1970) encouraged the use of what he called lateral thinking to change our perceptions to extend past the mental boundaries that inhibit us from solving problems of logic, Rogers (1989) encouraged this same type of intellectual liberation, but from a more social perspective:
All individuals have within themselves the ability to guide their own lives in a manner that is both personally satisfying and socially constructive. In a particular type of helping relationship, we free...the individual to find their inner wisdom and confidence, and they will make increasingly healthier and more constructive choices. (p. xiv)

While observing in Katie’s classroom, I sat next to a group of students working on a writing project. A cup filled with Sharpie markers arranged aesthetically by color in a rainbow fashion sat prominently in between the students. This caught my eye, so I asked to whom the markers belonged? The entire table became very quiet, as if I had implied that someone had done something wrong. I then realized that I had put the students on guard, recalling that in many of the schools I had worked in, students were not allowed to use permanent markers at all, and the idea of any student wielding such an assortment of colors would certainly be deemed as contraband. Because of their permanency once used, coupled with an association with vandalism, in my experience, these types of markers were always seen as a tool to be used solely by adults in school. So I quickly mentioned that I thought that the way the colors were arranged looked cool. At that point, it seemed the entire table breathed a sigh of relief and one young lady said they were hers, and that she like to use them in her stories. Another student in the group enthusiastically said, “she shares them all the time!”

Throughout my visits there were many incidences like this, which I noted and subsequently referred to as “non-issues”; seamless happenings that I felt would have caused a major controversy in a traditional classroom. I began to understand that in this classroom there was nothing unusual about a student having or using permanent markers,
until a foreigner to their learning community questioned why there were there. In these more evolved learning communities however, such events were not only unremarkable to the class, but necessary to achieve the fluid and cohesive nature the students shared with each other and the work. Rogers (1994) referred to classrooms where students could be seen as either tourists or citizens depending primarily on the attitude of the teacher.

With an increasing need to differentiate instruction for mixed-ability learners while teaching content standards, teachers must create engaging lessons that allow for student choice and appeal to their interests. Project-based learning gives teachers and students a broad platform from which to explore and build conceptual knowledge, while varying educational experiences and opportunities. Bransford et al. (2000) described:

If teaching is conceived as constructing a bridge between the subject matter and the student, learner-centered teachers keep a constant eye on both ends of the bridge. The teachers attempt to get a sense of what students know and can do as well as their interests and passions—what each student knows, cares about, is able to do, and wants to do. (p. 136)

Similarly, Stringer (2004) believed that learning would be greatly enhanced when students not only have a say in what they learn, but how they will apply the knowledge and skills they’ve acquired. As students apply their knowledge, motivation once again becomes an important factor. The third component of Self-Determination Theory (Ryan and Deci, 2000) is mastery. Individuals want to experience a sense of accomplishment, success and progress in their learning. Eventually, students want to experience mastery with a skill or task. Smith (1996), after conducting a meta-analysis of thirty-five inquiry-based activities concluded that while project based learning opportunities yielded
marginally different outcomes than traditional teaching methods, the project based approach did result in high gains for the students’ critical thinking skills.

Just as MacKinnon (1978) encouraged educators to utilize a diversity of approaches in their teaching, implying that there is no one single way to foster student creativity, Tomlinson (2001) suggests differentiating the content, process, product and environment to engage students. A central measure of this differentiation resides in the concept that students will feel more engaged in the learning when they are working to answer questions, which they themselves have generated.

Theme Five: Employ Project/Problem-Based Learning

Throughout the interviews, the curricular element that resounded as the greatest avenue for student choice and ownership was Project-based and Problem-based Learning. All five learning environments could be described as steeped in a project-based philosophy, with classroom expectations and structures in place to provide for more non-traditional learning experiences. The project-based approach also offered a link between the group’s definition of “innovative” and the expectations they set for themselves and their students as Courtney expressed:

I guess I would say that I’m kind of not satisfied with doing the norm. Like, I like to think outside of the box. I like to do more hands-on experiences vs. you know, paper, pencil types of things. I would say I’m constantly trying to think of new things.

Not being afraid to try new or different things emerged as a very popular answer from the participants. When Amy was asked to tell why her colleagues described her as innovative she replied:
I guess because I try new things all the time. I don’t like to have my class just sitting in the room quietly at their desks. I don’t think that’s how teaching happens or learning happens. I like to have kids in groups and on the floor and at their desks talking, and the messiness and I think not everyone sees that as innovative, but I feel that people I work with do. They realize that I’m always willing to try new things and just make sure that my kids are having fun.

Walking through the classrooms there are many signs that relay a similar non-traditional philosophy by the teachers. Visitors to Amy’s classroom are warned by a sign that states, “Please excuse the mess, we are learning”, while a similar sign adorns the doorway to Katie’s classroom which describes a certain amount of messiness that accompanies effective learning. This “messiness” can be in relation to the hands-on learning taking place, the relationship building that accompanies pushing students to work together to achieve a common goal or the planning and evaluating of learning experiences.

During one visit in Stacy’s classroom, the class was preparing for an end of the year play. As I walked into the classroom a student greeted me and said, “Please don’t mind the mess, it’s reader’s theater day”. Each of the students was engaged in a task that in one form or another contributed to the production, when I found Stacy offering two different kinds of fabric to a student who would be creating costumes.

Later, when I mentioned to Stacy about how well the students were collaborating and how harmonious their interactions were, she acknowledged the fact, and then quickly proceeded to explain the process as to how they arrived at that point.
Days earlier, Stacy had informed the class that they would be putting on a reader’s theater play. Stacy gave them some guidance, along with materials for props, costumes and a storyline. She then let them begin to create. For the next forty-five minutes Stacy allowed the students to explore their ideas, until they started becoming unfocused and frustrated. Stacy reflected that it was very difficult for her to stand by and watch what was unfolding, but knew this was a necessary and integral part of the process. She called the class together to discuss how they thought it was going. After they took turns talking about and reflecting on what was working and what they felt needed to be changed, the class worked together to come up with a plan that they all agreed on. Once the plan was in place they were allowed to continue with the preparations for the play.

This time the class was much more successful. Stacy then related the students’ experience with her own teaching, stating, “to teach, you can’t just create, you need a plan.”

While Stacy’s concept of letting students experience creativity may have been more successful by incorporating some metacognition, Liz described a slightly different, more laissez-faire approach to Project-Based Learning, “We’ve been actually doing a lot of projects lately; group projects and they have been working very well together.” “We set it up where I give them no guidelines and I say, ‘This is your project’, they just go out and do that and create it.” When asked to elaborate on how she gets her students motivated, Liz explained:

I like to do projects. I like to have more of a project-based classroom. It gives kids a little bit more control, so if I throw a topic out there, I try to relate it to the
real world if need be or just to get their opinion about what it is that you want to learn about.”

Of the projects in Liz’s class, there was always a strong technological component. Liz has a vibrant curiosity toward the incorporation of technology into her teaching. As her fifth grade students are a bit older than the other students in the study, they too share an eagerness to bring whatever tools available to help express their ideas and support their learning. According to Dewey (1916), the type of activities that stimulate real involvement, “give pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results” (p. 181).

Spending time in these classrooms, I sensed that the students enjoyed the rigor and increased demands placed on them by their work, because they understood its value. Additionally, I believe that while the students might not have been able to define the overarching ideology driving their classroom pedagogy, I do feel that they were able to appreciate their teachers’ Constructivist philosophies (Jonassen, 1994).

Often the large-scale projects that students were engaged in are the result of a Problem-Based Learning approach, where the teacher strategically built the lesson around a problem or an essential question for students to investigate.

Problem-Based Learning originated at McMaster University Medical School in Canada (Neufeld & Barrows, 1974) as a way to help medical students to engage on a deeper level than basic rote methods of the past. This method was designed to allow students greater input and latitude within their explorations. Hmelo-Silver (2004),
believed this approach increased the learner’s knowledge base, motivation and collaborative skills.

Inman (2011) describes Problem-Based Learning as differing from traditional curriculum in that it focuses on skills such as problem solving, research and collaboration rather than content attainment.

Both Project-Based Learning and Problem-Based Learning stress a greater level of participation and engagement by the learner. Each method was abundantly evident in the classrooms observed, and not by accident. These same integral components that make up these approaches (i.e. collaboration, inquiry-based learning, relevance) are the same tenets the participants structured their classrooms around.

Moss Brown and Berger (2014) drew on the need to make learning relevant as they designed Challenge-Based learning modules based on the work of Berger (2003) when they stated, “We were very clear in our belief that students learn best when they are doing work they find meaningful, with relevance outside of school” (p. 25).

Theme Six: Make Real Life Connections

One of the most significant traits shared by the participants was their ability to make the curriculum relevant to their students through real life examples and real life connections. Each of the teachers not only understood the “Why” behind what they were teaching, but were able to inspire their students to seek deeper understanding (Sinek, 2009, p.1).

Spending the time to observe in the classrooms, I never felt the heaviness or tension that many traditional classrooms have. Students were allowed, and even encouraged to converse with their peers. The teachers in the study all agreed that there
should be an element of fun in learning, which served as the tool that ties their interests and relationships to the curriculum. It is essential for the class community to thrive. Effective teachers understand that the learning process must be an enjoyable one.

In many rooms, the last days of the school year means taking posters off walls, packing away books and covering shelves. In the classrooms of the participants there was a shared sense of urgency to complete their ongoing projects. I found this particularly intriguing, especially because it was not the adults in the classroom encouraging the students, but students collaborating with each other toward common goals.

When teachers work with students to create meaningful learning experiences, students see the relevance in the work. Their motivation comes from the fact that there is a connection and ownership in the work, and because of this they are invested in seeing that the work is done. This differs from many traditional, teacher-oriented classrooms where students viewed the work as burdensome activities that were placed upon them from the teacher. In the classrooms that I observed, the students and teacher shared the learning.

At one point I walked into Katie’s classroom and students were peer-editing each other’s journals.

There was an industrious atmosphere in the room as everyone was engaged with another student’s writings. Conversation was focused around the different texts as students clarified ideas or critiqued their friend’s work. I remember mentioning to Katie that if I hadn’t already known there was only five days left in the school year; I could easily be convinced that it was September in her
classroom. This did not surprise her, as she simply acknowledged that this is the typical climate of her classroom. I, however, was quite surprised and intrigued as to where the students’ motivation came from just days before summer vacation. As I continued to talk with the students about their projects, I began to see that their motivation seemed to come more from actually doing the assignment well, than the prospect of simply completing it.

This overall classroom sentiment of being connected to the work, working to attain mastery and ability to guide their own learning supports the concept of motivation described by Ryan and Deci (2000), as conceptualized by (Csikszentmihalyi & Rathunde 1993; Ryan 1995):

The construct of intrinsic motivation describes this natural inclination toward assimilation, mastery, spontaneous interest, and exploration that is so essential to cognitive and social development and that represents a principal source of enjoyment and vitality throughout life. (p. 70)

By taking the time to explain the relevance of the curriculum to their students’ lives, both present and future, the teachers added an elevated sense of meaning to the work being done. A strong sense of trust between the students and their teacher translates to less time and effort spent persuading students to engage in the learning. This element of real life connections not only pertains to the students’ interactions with the subject matter, but also extends to the “realness” of their teacher. Rogers (1989) explained the importance of this teacher attribute:

Perhaps the most basic of these essential attitudes is realness or genuineness.

When the facilitator is a real person, being what she is, entering into a relationship
with the learner without presenting a front or a facade, she is much more likely to be effective. This means that the feelings that she is experiencing are available to her, available to her awareness, that she is able to live these feelings, be them, and be able to communicate them is appropriate. (p.154)

As students’ interest and investment increases, so does the likelihood that they will be successful.

Another example of Making Connections to Real Life, had to do with the participants’ openness, and transparency with their students about their own personal lives. Each of the participants regularly shared personal anecdotes with their classes about what was going on in their lives, and took time to explain how they felt about it. In short, the teachers not only expressed personal aspects of their lives with the students, and once again, utilized the reflective process to orient themselves for the students. For instance, one of the teachers shared with her class that she was running late that morning, and recounted for the students how that made her feel, and what she planned to do so this would not happen tomorrow. She took time to explain the situation and took time to discuss how she would turn an unfavorable situation into an opportunity to learn.

In relation to the ecosystem of learning themes mentioned earlier, Making Real Life Connections corresponded closely with Employ Project/Problem-Based Learning quite well, as students were compelled to create real-life connections, while they worked through the problems designed within the curriculum content. Brown and Berger (2014) described that, “If we are to truly transform and rethink the schools we have now and the schools we need, we must begin by focusing on what should be at the core of our schools: what and how students learn” (p. 25). This type of transformation cannot occur with
teachers working independently of each other. Students need teachers who are willing to collaborate.

Theme Seven: Encourage Teacher and Student Collaboration

The final characteristic that was prevalent with the teacher participants was their ability and willingness to collaborate with colleagues, and anyone who had a positive influence on their classroom and students. Each shared a proclivity to learn from others and to share their learning with a certain pride in knowing that this sharing was making their teaching better. The teachers were all very excited to describe the collegial community and teamwork they were a part of. Dufour and Eaker (1998), list engaging in shared inquiry and working in collaborative teams as two of eight major differences that make certain teachers stand out from others. As I spoke with the participants, I felt that they all saw themselves as their students’ main advocate and partner in their education.

In addition to collaborating with colleagues, each of the participants collaborated with their students on a daily basis, as well. This collaboration with students paralleled the shared inquiry traits the participants engaged in with their adult counterparts and strengthened the overall learning community, by promoting an overall spirit of collaboration and modeling appropriate relationships. A major part of this collaboration resided in the partnership between the teacher and the students. Each teacher understood the importance of helping their students understand the importance of their own work.

In a collaborative effort with both her grade level colleagues and her class, Liz instituted an interest-based weekly work session modeled after Google’s Genius Hour, where employees were encouraged to explore their creativity to pursue topics which interest them, and may also benefit the organization. Likewise, Liz’s students were
encouraged to collaborate creatively on issues they felt pertinent to their class community. At one point Liz explained the increased level of motivation in her students’ work, not only during the Genius Hour but also across all disciplines, which she attributed to the collaborative atmosphere surrounding the work, and the students’ outward expression of interest. To illustrate this point, Liz showed me the students’ written project proposals that were creative, neat and extremely detailed. Arriving at these well-crafted and thought out written proposals might be a chore in many classrooms, however, in Liz’s room, these projects are purely discretionary, yet everyone chose to partake. Much like the relationships they see modeled by their teachers, the students are learning they are a part of something bigger than themselves and they are an important part of their collaborative community.

Spending time in the rooms before, during and after school, I was able to observe how the teachers interacted with fellow teachers, administrators and support staff. There was always a certain fluidity between teammates as conversations transpired regarding curricula, grade level activities and the behavioral climate of the grade level team. Each of the participants put themselves in the center of the action, and had very open lines of communication with other staff. It was a very common occurrence for a grade level teammate to peak their head into the classroom of one of the participants as we were in the middle of a dialogue just to check in. Dufour and Eaker (1998) explained:

> teachers in a professional learning community recognize their obligation to work together on schoolwide issues...This willingness...to seek solutions together is a major factor in the success of a professional learning community. (p. 219)
These frequent connections made throughout the day not only fostered community, but strengthened collegial relationships for all students to see.

When I had conducted my interviews with the participants, I always concluded with a question about what the participant hoped to gain from partaking in the study, and while all of the participants’ responses stated something about continuous learning or to gain a better insight into their own teaching, one response profoundly impacted my methodology and altered the study.

During my interview with Stacy, as we were winding down, I had asked her what she hoped to get out of the study, she in turn, asked me a similar question and our conversation heated up again. As I explained my methodology and the process by which I was planning to interview the group and distill out common themes and characteristics of innovative teachers, Stacy stated that she too wanted to hear what the other teachers were saying. This was an exceptionally unexpected, yet exciting question for me, as I had not thought of having each participant member check each other’s responses for themes, but quickly realized that this was a defining and significant moment in the study.

To the benefit of the study, Stacy’s willingness to augment the methodology was shared by the other participants, who enjoyed the opportunity to deepen their involvement in the study. Additionally, when applying Self-determination Theory to this study, I would attribute Stacy’s enthusiasm to discuss her experience with the other participants as “connectedness” (Ryan and Deci, 2000), as she was excited to share her experience in the study with the other participants. This could be categorized under the theme See the Teacher as Lead Learner, or perhaps Encourage Teacher and Student Collaboration. As previously stated, these classrooms did not conform to a sit-and-get
structure where the teacher proffered information for the students to hopefully absorb, rather, the participants all shared strong reflective tendencies with their respective classes.
CHAPTER FIVE: CONCLUSION

Introduction

As our educational community continues moving forward after a period heavily influenced by federally mandated state testing and standardization, many have begun to recognize the benefits of prioritizing the creative and innovative teaching and learning that previously fallen by the wayside. Robinson (2001) extolled:

Current approaches to education and training are hobbled by assumptions about intelligence and creativity that have squandered the talents and stifled the creative confidence of untold numbers of people. This waste stems partly from an obsession with certain types of academic ability and from a preoccupation with standardized testing. The waste of talent is not deliberate. Most educators have a deep commitment to helping students do their best. Politicians too, make impassioned speeches about making the most of every student’s abilities. The waste of talent may not be deliberate but it is systemic. It is systemic, because public education is a system, and it is based on deep-seated assumptions that are no longer true. (p. 8)

While I feel that economic globalization, advancements in technology, communication and an overall need to update the educational system has cast a spotlight on the educational arena, I was also compelled to consider what aspects of teaching were still viable and especially effective in the 21st century classroom. My investigation led me to ask the following questions: What are the traits, attitudes and characteristics of teachers who are seen as innovative, creative and highly effective in School District 109?
Discussion of Findings

Initially, I had suggested that the rapid advancements in technology, communication and the overall explosion of opportunities for individuals and group expression have had an impact and may have rendered many traditional teaching techniques outdated. In addition, I felt it both crucial and urgently necessary that educators explore new and innovative avenues of teaching, while seeking to understand, apply and nurture creativity within their classrooms in order to remain sustainable places for educational growth.

Considering the data collected, I would say that while many traditional perspectives of schooling are, indeed, outmoded, this alone is not the sole problem facing schools today. Our educational system, as a whole, struggles with issues of purpose, identity and overall adaptability. Again, this does not mean continuously recreating the wheel. Educators must be able to analyze their craft and decide upon what works and what needs to be changed.

In terms of purpose, it is important that not only schools, but our entire educational system communicates more effectively the overall goal and purpose of their work. All too often schools and school districts may have a strong sense of purpose, however, their efforts are hindered by mandates that contradict the school’s mission, vision and overall philosophy of learning.

One of the most effective traits shown by the participants in the study was their ability to adapt and change their teaching to meet the needs of their students. Each was able to employ a decision-making process that accounted for the curricular objective,
student understanding and classroom environment, while making ongoing adjustments to maximize how these interconnected.

Additionally, I noticed that the participants all shared a common talent for motivating their students, and of all the theories on motivation, Self-Determination Theory (Ryan & Deci, 1987) provided an appropriate lens through which I examined their ability to motivate. Self-Determination Theory accounts for the construct that people are intrinsically motivated by three factors: 1.) Autonomy 2.) Connectedness and 3.) Mastery. These three components seemed to manifest increasingly as I began to draw connections within and between the different themes. The seven themes that were extrapolated from the data were:

- See the Teacher as Lead Learner
- Encourage Learner Reflection
- Foster Class Community and Relationships
- Give Students Choice To Instill Ownership
- Employ Project/Problem-Based Learning
- Make Connections to Real Life
- Encourage Teacher and Student Collaboration

From these six themes I envisioned a classroom depicted by a forest with trees and plants representing each of the themes, and while each plant may be aesthetic in its own way, it also made up an integral part of the forest as a whole. I realized that these themes were not the only ones that might have influenced this study, however, they represented what I, along with the participants found to be most remarkable, as their roots reached deep into the culture of the learning environment observed. Each theme, along
with many others intertwined throughout the environment and the actions of its learners similar to an ecosystem where each of the six components relied heavily on each other. For example, it would be very difficult to have a community of learners in the absence of respect. Similarly, it would be challenging to make real-life connections if the teacher did not see herself as a learner. The absence of one theme, I would argue, would have detrimental effects on the entire classroom environment. Therefore, based upon these findings, for teachers who wish to foster innovative and creative learning environments in their classrooms, I offer the following recommendations.

**Recommendation One: See The Teacher As Lead Learner**

I regard this theme as one of the most fundamental and foundational for teachers as they set the tone for the learning that will take place with their students. Many professional educators are hindered by the notion that becoming a teacher is a concluding achievement, rather than the beginning of a journey. Often, many, but not all, have an understanding that the role of the teacher is to instruct, while actual learning is the role of the students. This was not the case with the participants in the study. Rather than defining themselves by their professional title of “teacher”, I would suggest that the teachers defined themselves primarily as a learner and applied that self-concept to their role within the classroom.

Just as Dweck (2006) explained the concept of a growth mindset to students, supporting that students should see their intellect as something that could be fostered, it is important that teachers also subscribe to this same ideology. Teaching is an ever-evolving skill that requires continuous learning to take place. This sentiment was echoed recurrently throughout the teacher interviews as the participants expressed that they did
not want their classrooms to resemble traditional, teacher-oriented learning environments, but rather ones that were guided by the insights and interests of the students.

 Whereas it is essential for the teacher/learner to have a growth mindset, I feel that it is of equal importance that he or she is a self-regulated learner. Zimmerman (2002) described self-regulated learning as involving self-evaluation to outcomes and goals one has set. The participants in the study regularly took time to engage in conversation with their students, prompting them to reflect on their work and gauge their reactions to the goals they set, along with the goals set by the class. Pintrich (2007) also described self-regulated learning as:

 an active process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior guided and constrained by their goals and the contextual feature in the environment. (p. 453)

 The definition given by Pintrich could be equally applied to students in a classroom, or members of a teaching faculty, considering that it is a process that focuses on the learner in the context of a specific learning environment.

 As we continue into an era focused on school reform, it is essential that we avoid the tendency to blame outside factors that plague educational endeavors. Instead, we must re-conceptualize our vision of the teaching profession with a new orientation that promotes the process of learning, rather than the process of teaching. In terms of innovation, by subscribing to philosophies such as Dweck’s (2006) Growth Mindset or Sternberg’s (1985) Theory of Successful Intelligence, I feel that these educators are choosing the path of innovation. The classrooms of the participants deviated from the
idea that intelligence is a rigid trait that students could not change, and by fostering a love for learning and inquiry, I feel they ultimately promoted innovation in learning.

I feel that the main role of the teacher is to not only model, but also live the learning process for her students. In terms of future research, it would be interesting to conduct a longitudinal study with students as they progressed in a district that subscribed to a Growth Mindset (Dweck, 2006) philosophy within their learning community. Furthermore, I would encourage teachers to apply the theories of Dweck (2006), Sternberg (1985) and Gardner (1983) as they design their classroom learning environments to meet a diversity of student ability.

**Recommendation Two: Encourage Learner Reflection**

In the previous section I discussed how each of the participants encouraged student reflection by prompting them to analyze their work against their goals and the goals set by classmates. This analysis would not be possible without some form of self-reflection taking place. Within the five classrooms observed, I noticed that reflection was not a culminating activity that was done at the conclusion of a lesson, but rather a practice that was interwoven throughout the day. Often during the different lessons and activities I heard the teachers stopping and prompting students to reflect on a situation they may be involved in with another student, how the class was behaving in relation to what was expected or an idea that was shared by a student. Just was Darling-Hammond (1998) expressed that teachers need to reflect in order to refine their teaching craft, the participants continuously encouraged student reflection and modeled their own, often incorporating think-aloud strategies to illustrate their own critical thinking process and its application to a given situation.
The role reflection plays within these classrooms is both process and skill. It is the web that binds the classroom ecosystem together, and each of the participants at one time or another taught their students how to use reflection as a navigation tool to help orient them within the learning environment. As Schön (1983) might have described the participants as “reflective practitioners”, these adults not only chose to model the reflective process to the class, but also understood that reflection is an imperative part of the learning process. York-Barr et. (2006), outlined some of the benefits that take place when teams engage in reflective practice:

- Enhanced learning and resources for learning about practice, given more people, each of whom brings varied experiences and expertise in life, learning, and education
- Increased professional and social support (including fun), given expanded and more varied network of collegial relationships
- More effective interventions for individual students or groups of identified students, given shared purpose, responsibility, and expertise among members of the group
- An emerging sense of hope and encouragement that meaningful and sustained improvements in practice can occur, given group members are committed to working and learning together
- Improved climate and collegiality, given greater understanding of our own and others’ experiences and perspectives about our shared place of work (p. 22)

Innovative teachers create as many opportunities for students to reflect on their learning, and through purposeful and intentional planning, incorporate this skill often.
As we continue into a new era hinged on performance-based teacher evaluation and professional assessment such as the Framework for Teaching (Danielson, 2007) school districts should be cognizant that reflective practice is a major component in many frameworks that promote teacher improvement. However, this is only the beginning of a transformation process that grossly underestimates the importance and need for reflection. This should not only include teachers, but students, as well. Communities of learners should understand that the reflective process must be encouraged at all levels of any organization. Time must be allocated and honored for students and teachers to stop, dialogue and discuss the direction their learning is taking them.

**Recommendation Three: Foster Class Community and Relationships**

Each of the classrooms shared a strong sense of community and it was apparent that the teachers in the classrooms made a conscious choice to focus on fostering relationships with their students. Even more so, they placed a great emphasis on inter-student relationships. Within the classrooms I noticed a common, underlying theme of respect. The students respected each other, and at times when there was conflict, the teachers allowed the students to step away from the academic aspect of the activity to work on a resolution. Each of the teachers understood that this type of conflict resolution/relationship building is necessary and allowed time, space and guidance for the students to make it genuine. Whenever I witnessed a student-to-student conflict in one of the classrooms, I sensed that there was a protocol already in place to handle it. The teachers typically reminded the students to identify the problem and work it out. This process did not always look exactly the same between the classrooms, however, the common thread that once again ran through the rooms was that after the conflict was
resolved there was an element of reflection often posed to the students by the teacher. This typically was a divergent, open-ended question much like the questions that might follow a reading passage to check for comprehension. This strategy ensured that the students understood what the problem was and how to properly handle it in the future. It also prompted them to reflect on their behavior and gauge it against the classroom rules.

To the contrary, however, students in these classrooms also put great effort in creating a culture and climate of respect toward all in the community. It isn’t difficult to imagine a classroom wrought with misbehavior, led by a teacher who complains that the students will not behave or follow any of the teacher’s instructions. This situation is all too often the reality in classrooms where the main goal is to teach students to comply, and students have little input into the learning. A common characteristic of the classes I observed was that the students shared an understanding that the relationships they were creating with one another were equally, if not more important than the curriculum itself. Likewise, the teachers in these classes found it important to make class community and relationships part of the curriculum through daily class meetings and group reflection about issues that arose in class.

Listening to the teachers’ responses I felt that all of the teachers had an idea that the learning spaces they had created and were trying to create were atypical and non-traditional. This was by design. The participants understood that the vision of authentic learning they hope to create requires greater freedom in a less traditional structure.

The initial goal of my study was to search for creativity and innovation within a suburban school district, by studying creative and innovative teachers. Now at the conclusion of the study, I believe what I have found are five educators who employ
creative and innovative techniques, but more importantly, are exceptionally adept at creating classroom environments that foster innovative and creative learning. While there are many teachers within the scope of this study who employ aspects of the six themes being discussed, I feel that these five teachers especially understand the reciprocity that occurs when all of the themes are present in their classrooms. As previously stated, student reflection was a very strong binding force within all of the classroom environments. Considering a classroom ecosystem again, I feel that the two themes, reflection and classroom community are strongly interrelated.

Implications for future research in relation to this theme should target on the correlation between student motivation, engagement and compliance. Although the teachers in this study all shared a philosophy that fostered a growth mindset with their students, I feel there is a high probability and likelihood that some educators feel students need to conform to more rigid model of what they consider to be “school”. Stemming from this thought, I would consider a participatory action research project to have teachers lead an inquiry into teacher beliefs regarding student ability and mindset.

**Recommendation Four: Give Students Choice To Instill Ownership**

In Chapter Four I discussed how the participants shared a strong belief that as the amount of student choice increased, particularly when differentiated by content, process, product and environment (Tomlinson, 2001) so did their students’ motivation and sense of ownership of the learning. However, at the beginning of the study I would have defined motivation as the willingness to do the work, and ownership as simply having a choice over what to learn. Now, after observing different discussions in the classroom, I would extend the idea of ownership to include more cognitive ownership of the learning.
King (1992) believed that student-generated questioning strategies are more effective than those originating from the teacher or textbook (Boykin & Noguera, 2011). By asking questions like, “What would happen if...?” and “Do you agree or disagree with...?” (King, 1992, p.113), student discussion would extend beyond rote memorization.

Ownership in learning can be both an influential motivator, as well as, a way to make learning more meaningful and appreciated by the learner. When children are afforded the opportunity to make choices about their learning, there is an additional factor of connectivity with the learning, which Ryan and Deci (2000) have determined has a positive effect on motivation. This connectedness, in conjunction with autonomy help to solidify the classes’ ownership of the learning by giving them both a choice in the type of inquiry they pursue, along with the process they engage in.

Students should have the autonomy to be self-directed in their learning, while realizing how their interests connect to the learning being done by their peers. Each teacher shared the understanding that to keep students motivated, it was critical that they made the curriculum relevant to their students’ lives. That being said, our entire educational system continues to reside in a paradigm that promotes compliance and uniformity in children. As educators we express the need for reform, and the need to promote the freedom to learn, however, we continuously fail to change the structure of our school model. Corbett and Wilson (1995) acknowledged:

Our proposition is that student role redefinition is a critical linchpin between adult reform and student success, and that failing to acknowledge this connection is a potentially fatal flaw in promoting our understanding of reform and in creating effective change initiatives. (p. 17)
With the dawn of a technological age that promotes one-to-one computing and cellular devices along with endless interconnectivity though social media, self-directed inquiry has become a natural outcome for our students. In the past, school-aged children spent many hours passively engaged in front of the television set. Now, however, student downtime still may be spent in front of a screen, but children are interfaced with constant choice as to how and where they navigate through cyberspace.

Recommendation Five: Employ Project/Problem-Based Learning

The theme of employing project-based learning experiences can be seen as a strategy or framework from which to teach curricular content. However, in the context of this study, I feel that the participants’ understanding went beyond simply utilizing it as a strategy. Within each of the classrooms, project-based learning provided a core foundation from which the learners were able to build their knowledgebase. While many classrooms utilize projects as a vehicle from which to address the curriculum, it isn’t as common that classroom communities are able to blend project-based learning activities with problem-based learning approach in order to sculpt the learning-taking place. Within the classrooms I have observed, project-based activities often evolved into problem-based learning opportunities, where students had encountered a problem they either wanted or needed to solve, and worked collaboratively to solve it.

Both approaches, project-based and problem-based have their roots in inquiry-based philosophies, and both encourage students to employ creative thinking. Starko (2001) explained why teaching techniques to help students think creatively is so important in a problem-based classroom:
time spent on activities that specifically teach creative thinking skills and attitudes sends a valuable message to students, “Creativity is valued here. It is so important we will spend precious time and energy to help you be more creative.” (p.155)

Future implications may prompt school districts to examine their curriculum to include a greater focus on learning activities and teaching that fosters creativity.

*Recommendation Six: Make Connections to Real Life*

In analyzing this theme, I had originally thought to entitle it simply, “Relevance”. However, I felt it more fitting to incorporate something about making real world connections, because that was, in fact, what the teachers did to make the work relevant. They were very purposeful in their attempt to make connections between the curriculum content and vivid depictions of situations and events that take place in everyday life. In terms of motivation and Self-Determination Theory, this theme would best be aligned with connectedness, as the students were taught to draw relationships between their classroom community and the world beyond their classroom door. Going deeper, the concept of connectedness could be related to other themes such as Foster Class Community and Relationships and Employ Project/Problem-Based Learning.

The adoption of the Common Core State Standards throughout the United States continues to have a strong influence on the development of curricula that has a more narrow scope and deeper focus. While this paradigm shift will necessitate and allow for more project and problem based learning, it will also require a great deal of professional development for teachers and staff to support this type of learning.
Recommendation Seven: Encourage Teacher and Student Collaboration

Much like the other themes, this teacher trait is a hybrid of two other themes; See the Teacher as Lead Learner and Foster Class Community and Relationships. Ryan and Deci (2000) described the three essential components that drive peoples’ self-motivation: autonomy, connectedness and mastery. Much like autonomy is a major component in Theme Four: Give Students Choice To Instill Ownership, connectedness is a major part of Theme Seven. As Darling-Hammond and McLaughlin (1995) expressed that teachers need to collaborate and share their craft in order to improve instruction. As teachers grow to see themselves primarily as the lead teacher, who’s role is to model the process of inquiry for her students, and they begin to share that vision with their colleagues who share the same purpose, a natural sense of collaboration will develop. By pairing Darling-Hammond and McLaughlin’s (1995) concept that teachers need to collaborate to refine their teaching skills, with Ryan and Deci’s (2000) theory of self-determination, one can see that an increase in collaboration and connectedness will result in an increased mastery and refinement of craft.

Personal Reflection

The purpose of this study was to investigate the characteristics of teachers who promote innovation and creativity in their classes; in short, to explore who are “good teachers”. Looking at the ideas derived from this study, it is easy to see that these themes share an interconnectedness and interchangeability, since they all are essential components in learning. And while my initial hypothesis was directed at the act of teaching, it is now apparent that my focus was really on the act of learning, as this has always been the ultimate goal. More importantly, as I consider these seven themes and
wonder which one is the most integral to the transformation of schools, my thoughts go to Theme Four: Give Students Choice to Instill Ownership. As I stated before, I believe each theme is a necessary and vital part of any healthy learning environment, however, in the context of this study, and projecting toward the future, I feel that placing additional emphasis on the concept of who “owns” the learning, will prompt educators to reexamine their existing philosophies of teaching and consider redeveloping philosophies of learning. Rogers (1989) described what he considered real learning:

I want to talk about learning, but not the lifeless, sterile, futile, quickly forgotten stuff that is crammed into the mind of the helpless individual tied into this seat by iron-clad bonds of conformity! I am talking about learning-insatiable curiosity that drives the adolescent mind to absorb everything he can see or hear or read about a topic that has inner meaning. I am talking about the student that says, “I am discovering, drawing in for the outside, and making what I discover a real part of me.” (p. 35)

When students feel truly passionate about their education, the experience of learning becomes uniquely their own. The efforts of the teacher are no longer to convince students to be active participants in their learning; rather, teachers will be free to give guidance and encouragement within the learning. As I searched for innovation and creativity throughout this study, I learned that those teachers who chose to share the learning with their students; those who shared the ownership of the work would retain their relevance, as their caring efforts to continuously relate to their students was the real innovation.
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APPENDIX A

Participant Identification Survey

Staff

Dear Colleague,

As I have shared with many of you in the past, I am pursuing my doctoral studies in Educational Leadership. As I continue on my educational journey, I am looking to spend time with teachers and visit classrooms (grades 3-6) that are innovative and creative. While I have my own perspectives on these themes, I would greatly appreciate your input, as well. Who would you identify as being an innovative and creative classroom teacher (grades 3-6) within School District 109? Feel free to identify more than one, as well as, yourself, if you like. Any participation will be seen purely as voluntary and all responses will be kept confidential.

Thank you,

Robert Serdar

Teacher_________________________________Grade____School____________________

Teacher_________________________________Grade____School____________________

Teacher_________________________________Grade____School____________________
Dear Principal,

As I have shared with many of you in the past, I am pursuing my doctoral studies in Educational Leadership. As I continue on my educational journey, I am looking to spend time with teachers and visit classrooms (grades 3-6) that are innovative and creative. While I have my own perspectives on these themes, I would greatly appreciate your input, as well. Who would you identify as being an innovative and creative classroom teacher (grades 3-6) within School District 109? Additionally, is there a teacher that you feel the parents of your students and/or your community regards as innovative and creative? Any participation will be seen purely as voluntary and all responses will be kept confidential.

Thank you,

Robert Serdar

Teacher____________________ Grade____ School____________________

(Principal Choice)

Teacher_________________________Grade____ School____________________

(Inferred Parent/Community Choice by Principal)
APPENDIX C

Participant Initial Interview Questions

1). Your colleagues have identified you as an *innovative* teacher. Why do you think they might feel this way?

2). What does being innovative and creative mean to you?

3). How does innovation and creativity influence your teaching?

4). What do you feel are the most important aspects of your teaching?

5). What would you like to get out of participating in this study?

*Alternate Question: What significance does innovation have in education?
APPENDIX D

Student Interview Questions

Your teacher has been recognized as an innovative teacher, why do you think people might say that?

A lot of people say Ms. _____________ is a very good teacher. Why do you think they feel that way?

What makes your classroom different than other classrooms?

What does your teacher do that helps you to learn?

What is special about your classroom?
APPENDIX E

Participant Biographic Data

Katie- Katie has eight years of teaching experience all at School L. Three of the years were taught in third grade and five years were taught in the fifth grade. Katie holds a Masters Degree in Curriculum and instruction and is twenty-nine years old.

Liz- Liz has three years of experience teaching fifth grade at School W. She is currently seeking a Masters Degree with in endorsement in ESL. Liz is twenty-five years old.

Stacy- Stacy has six years of teaching experience all at School B. Stacy holds a Bachelors Degree and is thirty-three years old.

Courtney- Courtney has three years of teaching experience in the third grade at School L. She is currently seeking a Masters Degree and is twenty-five years old.

Amy- Amy has three years of teaching experience all at School W. Along with teaching the third grade, Amy has also spent two years teaching in multi-age classrooms grades 2/3 and grades 3/4. She holds a Masters Degree and is pursuing her endorsement in ESL. Amy is twenty-eight years old.