PROMOTING AUTHENTIC INSTRUCTION THROUGH SECOND-CAREER EDUCATORS

By

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DEDICATION

I would like to dedicate this dissertation to my beautiful and supportive wife Michele and my son Colter. Michele, thank you for your hard work and dedication. You deserve this degree every bit as much as I do for the many, many times that you gave advice as well as all of the time you dedicated while I was gone for class and writing papers over the past four years. Michele you were and still are my greatest advisor, always helping me stay focused and pushing me to be my best-- thank you, I appreciate you, and I love you. Colter, thank you for being patient about going to the park and thank you for teaching me how to write a doctoral-level paper with a toddler climbing on my head.

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ABSTRACT

Promoting Authentic Instruction through Second-Career Educators

Newmann, Secada, and Wehlage (1995) has shown that student achievement can

be gained through the use of what is described as authentic instructional styles. These

types of pedagogy maintain a focus on building knowledge through real-world

application of subject matter and discussion of topics that are relevant to students' lives.

Studies have shown that an ongoing process of socialization into the school system

occurs throughout a teacher's career leading them into the use of more objectivist

methods of teacher-centered instruction and rote learning of information (Hoy &

Woolfolk, 1990; Staton & Hunt, 1992; Wattenburg, 2001; Zeichner, 1980). This study

sought to measure whether second-career teachers, through their experience within non-

teaching careers, have developed a theory of action (set of rules used to design and

implement behavior) that is more aligned toward authenticity as compared to that of first-

career teachers (Argyris, 1991). The analysis attempted to focus on a teacher's theory of

action because this will guide how a person perceives the world and therefore how she or

he will act within it. To accomplish this, a survey was sent to secondary teachers (n=217)

in a large suburban school district. Data were evaluated using a variety of analyses to

determine both reliability (Chronbach's Alpha), differences between means (t-test and

ANOVA), and correlations between variables (Pearson's correlations). Results

demonstrated that there were no significant differences in the *Theories of Action* between

first and second-career educators, indicating that both groups find this type of instruction as essential. However, one finding is that the socialization influences of the school environment do affect teachers over the course of their career whether or not they held a previous career before teaching. This study exposed, however, that second-career educators might be even more prone to the socialization influences present within the school system when compared with first-career entrants. This could possibly be due to the higher expectations that these individuals bring with them into the career and the extremely difficult challenge of making those expectations a reality (Cherubini, 2009). One implication is that because second-career teachers do possess real-world skills to impart to our students, educational leaders should find ways to decrease this socialization influence by providing targeted support for these educators.

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Problem Statement

The importance of finding techniques that ensure that students learn to high levels

should be obvious in its importance for the prosperity of our country. Previous research

has positively linked effective teaching to student achievement (Chenoweth, 2007;

Fullan, 2007; Goodlad, 1991). This evidence indicates that it is indeed possible to

increase learning within our classrooms and it is the teachers who play the greatest role.

In order for teachers to be effective, they need to have the tools to be successful—they

need pedagogy that has been proven to increase motivation and learning for students.

Newmann, Secada, and Wehlage (1995) have shown that student achievement can be

gained through the use of what is described as authentic instructional styles. These types

of pedagogy maintain a focus on real-world skills and discussion of topics that are

relevant to students' lives. Though this type of teaching has been shown to increase

learning, its implementation within our classrooms has been very slow to develop. This

typically leads students into classrooms that are built upon the objectivist methods of

teacher-centered instruction and rote learning of information. Studies have shown that an

ongoing process of socialization into the school system occurs throughout a teacher's

career, leading them into the use of more objectivist methods of teacher-centered

instruction and rote learning of information. One method that may promote relevant and

real-world pedagogy in today's classrooms is to recruit and hire teachers who have been

involved in previous careers. Evidence shows that despite an initial enthusiasm for

being creative and attempting to employ authentic techniques, most of these teachers end up teaching in objectivist ways (Feiman-Nemser, 2001; Hoy & Woolfolk, 1990; Staton & Hunt, 1992; Wattenburg, 2001; Zeichner, 1980.) Additionally, many other teachers having little working knowledge of cognitive research simply begin to teach as they were once taught. The result is the use of methods that are not grounded in cognitive research and are typically much less effectual in achieving positive results in student learning.

Authenticity as defined by Newmann and Wehlage (1995) entails bringing real-world issues into the classroom, allowing students to participate in real-world actions related to a particular subject, and incorporating in-depth discussions involving all students built upon relevance of material and information to the world outside of the classroom. Teaching methods that incorporate concepts such as these have been shown to increase student motivation, increase student cognition, and ultimately lead to greater degrees of learning—the ultimate goal of any instructional research or program. That being said, educational leaders could look to authentic-type instructional pedagogy to obtain these greater degrees of success. Authentic instructional methods have a strong foundation in the cognitive psychological research of Bruner and Vygotsky, which indicate that learners incorporate new information through the construction of their knowledge (Driscoll, 2000). This constructivist theory shows that students connect new information to what has been previously learned, building an interconnection between all information within the mind of the student. The more relevant the information to a student, the more of a likelihood that this information will come into contact with something that has been previously experienced and therefore previously learned. It is within this context that educators need to implement pedagogy that is relevant and able to

build upon previous student knowledge. Authentic instruction provides this methodology.

Though in many cases teachers and educational leaders desire to use these types of pedagogy within their classrooms or schools, it seems that these research-based methods have never been implemented to a wide degree. Instead, the more behaviorist or objectivist approaches toward teaching and learning are the norm. These methods typically involve the student as the passive recipient of information provided by the teacher, followed by an assessment typically in the form of an exam. Many studies have been performed attempting to analyze why it is so difficult for educators to move away from the implementation of this type of teaching in light of the fact that it is, by and large, unsuccessful in achieving high levels of learning for students (Zeichner, 1980; Feiman-Nemser, 2001). These studies have shown that an ongoing process of socialization into the school system occurs throughout a teacher's career. This socialization, also described as enculturation, is especially prevalent within novice teachers who are attempting to fit into the profession. Though much research maintains a focus on new teachers who tend to use role models from their previous experiences or within their current schools as a template, this process is evident throughout the entirety of one's career in education.

If public education and education in general is to move forward beyond the status quo to create citizens who have the knowledge and skills necessary to become successful participants within the workforce as well as within our democracy, we must create teachers and school leaders who can break from this mold. These individuals could implement more authentic and therefore more effective instructional styles. One method in which to incorporate more relevant and real-world pedagogy within the classroom is to

recruit and hire teachers who have been involved in previous careers. These individuals should be able to pass the knowledge and skills that are used within a particular subject and show the subject's relevance within the greater world. If *authentic instruction* leads students to greater motivation and subsequent understanding of a subject through relevance of material, then who better to provide this instruction than individuals who have participated in that subject's implementation within the real world. Second-career teachers may hold the capacity to increase relevance and therefore authenticity within a classroom and possibly a school.

Research Question and Purpose

This study seeks to discover if second-career teachers do indeed teach with more authentic methods as compared to those used by first-career teachers. If second-career educators do teach more authentically, using skills employed by individuals who work within their particular subject, employment of these individuals could be a successful way to install these techniques within schools and districts to increase relevance, effectiveness of teachers, and subsequent success by students. What this study intends to do is find out if second career teachers are inherently more authentic in their teaching styles despite the challenges of being socialized by and into the school system. Much of the literature implies that these second-career teachers feel they have abilities that will enable them to be successful within the typical school environment. Prior research speaks to those abilities of problem solving, implementing new techniques, and working past school bureaucracy as some of the attributes that differentiate second-career individuals from their peers. Much of this research, however, was not performed on a comparison-basis seeking to isolate quantitative differences between these two groups.

Most was performed through interviews of mainly pre-service career-switching teachers in asking what they felt they brought to the profession, what were the reasons for switching careers, and what teacher induction program characteristics they felt would make them most successful in their transition. Where this study differs is that it seeks to quantify actual differences between these groups (first and second-career teachers). This study also seeks to look at the influence of time within the school system and the effect that this has on both first and second career teachers alike.

If second-career educators are found to be more authentic as the result of their previous careers, educational leaders could use this information to recruit these individuals as a means of increasing authentic instruction within their schools. If they are not more authentic, however, the questions arise: why are these teachers not demonstrating the knowledge and skills that are needed by students to successfully enter today's workforce? What can be done to increase the degree of authentic instruction that second-career teachers should be able to provide? And where in teacher education and certification programs could interventions take place to ensure that these second-career teachers find the confidence and competence to implement authentic pedagogy that has already been shown to be successful at increasing student achievement?

Question

This study was conducted to determine if career switching teachers, those who were educated for and employed in jobs prior to teaching, taught in a more *authentic* manner than individuals who began their working careers as educators. Authenticity, defined by Newmann et al. (1995) consists of five components: construction of knowledge, disciplined inquiry, value beyond school, connection to students' lives, and

the inclusion of all students in the learning process. For the purpose of this paper, an analysis will be made comparing the authenticity of these two groups within their own personal *Theory of Action*. This theory of action, as described by Argyris (1991) is the set of personal rules under which their teaching is guided. This theory of action will give some sense of how the teacher views teaching and learning and, therefore, will give a sense of actions taken within their classroom.

Hypothesis

It has been proposed by Tigchelaar, Brouwer, and Vermunt (2010) and others that having had a previous career before entering the teaching profession can result in profound changes in the way educators view teaching and learning. It therefore can be argued that these individuals may bring real-world skills into the classroom, resulting in higher levels of authenticity. Conversely, however, much research has shown that in fact the opposite can happen as well. Second-career teachers having successfully navigated their way through the "system" of schooling may end up becoming conservative forces within a school building. Additionally, the socialization influences of a school described by Lortie (1975) and Zeichner (1980) can lead a would-be authentic teacher into the conservative methodology of objectivist teaching.

For this study, a null hypothesis has been developed stating that the level of authenticity of instruction within a particular classroom will be unrelated to whether or not an individual had a previous career in her or his particular field of study or whether they worked for a substantial length of time prior to teaching at all. What I hope to glean, however, is that second-career educators have a more authentic alignment toward teaching and learning simply due to exposure to real-world scenarios that force them to

become so. Since a survey was created to measure this authenticity, this alignment would manifest itself in higher overall scores. Additionally, it is hypothesized that, if there is no difference found in the levels of authenticity between first and second-career educators, the reason for this could in large part be due to the socialization influences placed upon the individual. These influences possibly arise from both past and present experiences within the classroom (Zeichner, 1980). Examples of this socialization will include the influence of previous teachers and/or college professors within the subject that they are teaching, as well as the socialization influences found within the school building once they have begun their teaching careers. This study will determine if first and career-switching educators differ in how they view student learning (construction of knowledge), the ability to problem solve and connect information (depth of knowledge), as well as the need to connect teaching and learning to real-world concepts and skills (value beyond instruction). This framework was chosen as a representation of a teacher's authenticity because is aligns with previous research by Brendefur (1999) who sought to develop a survey tool to measure levels of authenticity in math instructors. Through these factors a sense of the teacher's theory of action will be acquired and compared between these groups.

CHAPTER 2: REVIEW OF LITERATURE

Teaching as a Second Career

Changing careers is a decision that typically is not taken lightly. These "career switchers" choose to enter into the teaching profession based upon decisions that are highly personal (Wilcox & Samaras, 2009). Though the reasons for a change in careers are individual in nature, there are some generalizations that can be made regarding the reasons behind people's motivations. These generalizations can be analyzed and used as important pieces of the puzzle for implementing successful programs for the recruitment, education, induction, and retention of second-career teachers. Additionally, knowing the motivations behind why an individual switches a career allows educational leaders to develop targeted approaches toward creating an affective and authentic teacher. Resta, Huling, and Rainwater (2001) indicate a projected shortage of 18 million teachers worldwide and a need to hire 200,000 teachers annually within the United States alone. Successfully incorporating second-career teachers into the profession will play an integral role in filling this gap. These shortages are typically seen to be the result of an aging and retiring workforce coupled with the excessive attrition rates associated with teaching in many countries (Brindley & Parker, 2010; Elmore, 2008; Haggard, Slostad, & Winterton, 2006; Tigchelaar et al., 2010). The potential and therefore importance of enlisting second-career teachers into our nation's classrooms is exemplified through Dewey's (1938) statement that "education in order to accomplish its ends both for the individual learner and or society must be based upon experience, which is always the actual life—

experience of some individual." Dewey (1940) states later that a "school must represent life—life as real and vital to the child." Who among our teachers is more capable of bringing this vitality of realism into the classroom than those who have experienced it? Second-career teachers can offer knowledge and skills rich in authenticity and based upon the real world use of the subject they teach. It is these features, when implemented, that stand the greatest chance of creating the active and interested students that research shows leads to increased learning (Driscoll, 2000).

Reasons for a Change

Lortie (1975) spoke of the aspects of teaching that attracted people into the career. Some of these features were seen to be interacting with children, caring for others, providing a service to the community, and the material benefits of the profession such as job security, health care, and retirement packages. Further studies have shown that many career changers are seeking to avoid the boredom and underutilization of their talents that are perceived as being prevalent in their previous careers (Castro & Bauml, 2009). Tigchelaar et al. (2010) performed a review of the literature on the subject of second-career teachers. In their study, they sought to determine why people made this decision, how these individuals differed from "first-career" teachers, what problems and challenges they faced in this transition, and what pedagogy could be emplaced to aid them in a successful transition. In the aspect of motivation for a career change, what they found was that many of these individuals were typically convinced that they had made the correct choice in becoming a teacher after only a week within the teacher education program. These second-career pre-service educators were shown by Tigchelaar et al. to be intrinsically motivated and much surer of their decision to enter into the profession as

compared with traditional first-career candidates at the same point in their program. In accord with previous research on this subject, these authors presented findings that indicated a strong desire by these individuals to use their expertise to pass subject matter knowledge, help young people, and contribute to society. Upon analysis of many second-career teacher interviews, Dietrich and Panton (1996) found that their decision to make this change could be categorized into two major factors: internal and external motives. Dietrich and Panton articulate this *transition theory* by showing that the internal factors that are associated with switching careers are those that align themselves with perceptions of making a difference and seeking enjoyment and fulfillment. The external factors were determined to be associated with compensation and career advancement. Dietrich and Panton came to the conclusion that the internal factors played a more influential part in the decision to become a teacher as compared with the external.

Salyer (2003) highlights that second-career, pre-service educators maintain the "ability to incorporate very specialized, practical, and real-world knowledge into their instruction." Additionally, Salyer indicates that they can provide "interpersonal skills such as patience…teaming, management and organizational skills" (pp. 20-21). Haggard et al. (2006) cite other research in discussing career switchers as possessing strong work ethics, analytical thinking skills, expert knowledge, a willingness to try new techniques, and, overall, the ability to think outside of the norms of the typical school culture.

When compared to traditional first-career teachers, these career switchers had access to a considerably greater amount of experience, knowledge, and skills. These aspects manifest themselves in the greater abilities of: problem solving, communication, planning, managing, negotiation, thinking, and even curriculum design (Tigchelaar et al.,

2010). Though these competencies are evident due to the previous relevant experiences of these individuals, their implementation within the classroom setting is not certain.

<u>Making the Switch</u>

Castro and Bauml (2009) performed a qualitative study attempting to determine what factors affected the decisions of alternative pathway students entrance into education. As stated previously, they mentioned that these factors consist of both internal and external motivations. They focused their study only on the determinants for actual entrance into the teaching career. They concentrated these findings into four generalized categories: resource availability, latitude, commitment readiness, and program accessibility. All of the participants mentioned that they had access to knowledge about the teaching field either through some degree of experience within the field or knowledge of someone who was a teacher.   This resource availability tended to provide the support and information necessary for transition into this career. Another integral factor in the change to become an educator found these individuals having the latitude to make the change.   Castro and Bauml define this latitude as having the financial and temporal means to pursue this change. Weighing the "opportunity costs" and having the ability to make this conversion obviously plays a large part in peoples' decision to enter into a new profession (p. 119).

The third concept proposed by Castro and Bauml (2009) indicating why second-career educators enter into the field is commitment readiness. The authors describe commitment readiness as the individual possessing the confidence to endure the inevitable difficulties associated with this type of an endeavor. They must be at a point in their lives in which they can cope with a situation that poses tremendous uncertainty and

risk. Tigchelaar et al. (2010) performed an analysis of 36 studies examining various aspects of the career choices of second-career teachers. The results of these studies show that there is no *typical* age category (ages ranged from 22-57 for participants) for second-career teachers to possess the commitment readiness to make this change, though it certainly can be argued that both younger individuals as well as older, possibly previously retired individuals, could be more ready to make this commitment. Finally, Castro and Bauml (2009) talk of the importance of a teacher education program's accessibility. Most of the participants within the studies spoke of the need to make the transition "quickly and easily" (p. 122). They discussed the need for immediate information about program offerings and alternate routes into the teaching profession. The use of the internet and discussions with others who possess expertise to provide access to information was a prevalent concept among those being researched in the studies.

Beliefs Held by Second Career Educators

Because the belief systems and philosophies of education are central to the methods that teachers enact (Tigchelaar, Brouwer, & Korthagen, 2008), understanding the attitudes that career-changing teachers bring with them in regard to teaching and learning is imperative. Tigchelaar et al. (2010) use Korthagen's (2004) "onion model" (Figure 1) to discuss how the career changer's beliefs influence their actions within the classroom. This model distinguishes between six layers of experience: environment, behavior, competencies, beliefs, and professional identity and mission.
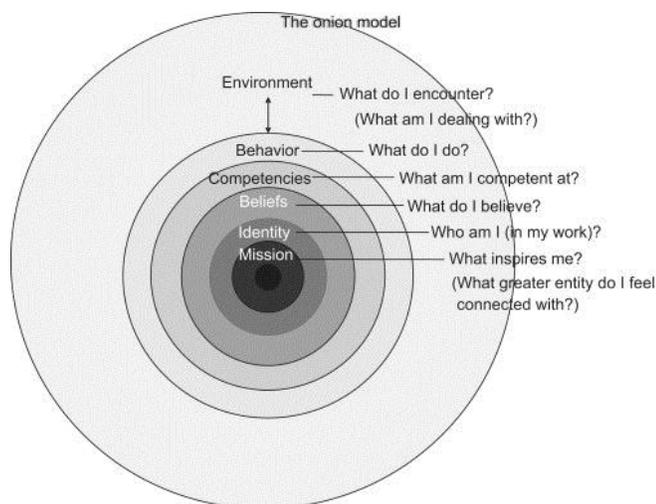
Figure 1.   **The onion model. This figure depicts the layers of experience and their interactions. Layers toward center of model indicate more deeply ingrained experiences (Korthagen, 2004).**

The deeper into the model the experience lays, the more deeply rooted and persistent the experience will be. It is clear from this model that the beliefs about teaching and learning that second-career teachers bring into the classroom from previous experience are extremely difficult to alter. In fact, this model demonstrates that it is the innermost layers of experience that influence the outer, with a person's personal identity and mission affecting all else. Tigchelaar et al. (2010) consider the challenges that second-career educators face between their idealistic views and the realities of the classroom.   Though Tigchellar et al. state that these individuals typically have a "strong intrinsic motivation and a sense of mission" to accomplish their vision of an ideal classroom, a "tremendous culture shock" was described as they faced the gap between "motives, ideals, and reality" (p. 169). This culture shock comes as a result of the dissonance between a person's mission and identity as to the type of teacher they would like to be, their beliefs of teaching and learning based upon previous experiences, and

realities of the classroom. Tigchelaar et al. show that the outer layers of the onion model

can influence the inner as well.   In the case of culture shock experienced by second-

career teachers, it is the environment that begins to affect behaviors, competencies, and

beliefs. Eventually, this will lead to the individual altering their own identity and sense

of what can conceivably be accomplished within their classroom. If this change has

arisen due to a negative aspect of the classroom or school culture, this teacher is now at a

high risk of burnout for their personal mission and sense of identity has been altered.

This process certainly affects both the first-career and second-career teacher alike. But,

since second-career teachers come to the career with an already ingrained and possibly

stronger sense of mission and identity (due to previous experience), it could be argued

that these individuals are at an even higher risk of burnout when reality does not match

their vision of what a classroom should be. The opposite, however is most likely true,

where second-career teachers who have a strong sense of mission and identity are more

resistant to this change and, if nurtured toward authentic teaching and learning, could

play a part in transforming the culture of the school. Tigchelaar et al. (2010) imply that

the previous experiences of those choosing to become teachers after another career lead

to the development of strong conceptions and personal beliefs about teaching, learning,

and education in general. These authors indicate that second-career teachers feel that

they are different from other teachers in subtle, but profound ways. The belief is that

they would be able to make real-world connections and use innovative pedagogy while

applying concepts in ways used by practitioners in that particular field. Additionally,

they indicated the importance of a connection being made between the classroom and the

world outside of the school. They feel that they are playing a part in transforming

education. Unfortunately, if authentic teaching is not fostered within these teachers, this stronger sense of identity can lead toward the promotion of outdated and conservative practice passed to them through previous experience.

Freidus and Krasnow (1991) show that many second-career teachers appreciate that they have valuable skills to offer but they do not, however, have the abilities yet in which to impart them upon their students. They continue by showing that these conceptions directly affect their practice within the classroom. Lortie's (1975) apprenticeship of observation indicates that teachers enter into the profession with notions about how teaching and learning take place. These conceptions are based upon what was observed through their own experiences as students. Because cognitive theory continually evolves and has therefore evolved since these individuals were students, they thereby risk working within outdated models presented to them by former instructors. Chambers (2002) states that though these teachers bring maturity and self-confidence into the classroom, they may also be "conservative forces" possibly maintaining the status quo. Furthermore, Chambers argues that these teachers perhaps come to the career with a greater degree of rigidity and entrenched ideas as compared with first-career entrants. Freidus and Krasnow (1991) confer that the use of teacher training and supervision can be implemented to rapidly shift the perceptions of teaching—if, they argue, teacher programs are differentiated based upon need. Freidus (1994) indicates that many of these teachers indeed have transformative visions of teaching. She states that supervised reflection can isolate their desire to adopt reformed methods of teaching from their reversion to the more conservative methods that they experienced as prior students. This concern is substantiated through Koballa, Glynn, Upson, and Coleman's (2005) research

into the conceptions of teaching among second-career science teachers. In this research, they found that there was a strong resistance to change among the participants and their perceptions about the teaching of science. It is argued that this is due, in large part, to these learners having been taught through the typical "passive recipient" method of teaching certainly common to most fields of science, but also prevalent in many other aspects of education. These beliefs are strongly held and deeply ingrained (as evidenced by the onion model of experience) and therefore are highly resistant to change. The more recent concept of students having to construct their own knowledge (construction of knowledge) argues against the majority use of this pedagogy. Koballa et al. (2005) discuss the need for teacher education programs to consider the process of conceptual change about learning among their participants as a primary goal of their programs. By comparing the views of these individuals both before and after teacher training, educational leaders can develop programs that accurately develop teachers who implement pedagogy grounded in research. Furthermore, by comparing these findings with those of more traditional methods of teacher education for first-career teachers, it is possible to highlight the difficulties in developing and employing more authentic teaching techniques.

Barriers to Authentic Instruction in Second Career Teachers

   Haggard et al. (2006), Newman (2010), and Wilcox and Samaras (2009) found that entrants into teaching as a second career were exposed to difficulties similar to those experienced by first-career students within a traditional teacher-training program. Wilcox and Samaras present how many of the teachers within a study "expressed vulnerability and altered self-concepts as professionals who had been successful in

previous careers and now struggled as teachers" (p. 185). This statement clearly indicates that, even with the benefit of additional experience and expertise of second-career educators, there are indeed difficulties to be faced. Wilcox and Samaras draw attention to and generalize the typical difficulties faced by these novices as issues of: time, discipline, getting to know students and families, and working within the bureaucracy of the school. These issues were reported in addition to the balance between the teachers' personal lives and their "very demanding professional life" (p. 186).

Many of the skills that career-changing teachers bring with them into the classroom are not necessarily the skills needed to become successful teachers (Tigchelaar et al., 2008; Trent and Xuesong, 2009). In fact, Trent and Xuesong (2009) talk about the mismatch between the content and pedagogy that these teachers want to teach with and how they actually end up teaching. This "mismatch" reduces the potential for creativity and more authentic instruction that second-career teachers could inherently bring to the classroom (p. 254). Work by Gonzales, Rodriguez, and Sjostrom (1998) in which a sample of 25 traditional and 18 non-traditional (second-career) students were observed at the beginning of their careers found that second-career teachers tended to be more student-centered in their approach to teaching. The traditional route students were heavily reliant upon curriculum in both content and time management. This study revealed that second-career teachers were more adept at navigating the political culture of the school, and were able to modify their behaviors to accomplish goals within it.

Understanding the teaching and learning philosophies of second-career educators coupled with knowledge about both the difficulties and aptitudes that they posses can allow teacher educators to create effective programs. This must be accomplished in order

to determine where roadblocks lie in the development and implementation of relevant and authentic teaching techniques that they could bring to the classroom. Once these stumbling points are determined, teacher training programs and school-based educational leaders can then enact appropriate pedagogy to harness and develop skills. Through this process, the growth of creative and authentic second-career teachers and teaching will become the norm.

<u>Second Career Teacher Education Programs—What Is Needed for Effective Change</u>

Teacher education programs play an integral role in moving an individual toward or away from the use of research-based pedagogy within their classroom. The use of effective pedagogy within the novice's classroom plays a large role in teacher retention during the first few *traumatic* years. The type of teacher, created through a teacher education program, could even determine if these induction years are traumatic at all. It could therefore be argued that teacher training is on the front line of educational change and may possibly decide the success or failure of our schools by giving good teachers the skills to be successful from the beginning. For this reason, it is essential to have an understanding of the characteristics that make teacher education successful. Of the 36 studies in which Tigchelaar et al. (2010) analyzed aspects of second-career entrants into teaching, only 4 touched upon characteristics of successful education programs for these career switchers. If career-switching teachers indeed bring knowledge, skills, and real-world relevance into the classroom, then it is vital that programs are developed to harness these qualities. In order to successfully integrate second-career teachers into the profession, alternative programs must be shaped to best meet these students' needs.

Aspects of Successful Programs

There are a wide variety of preparation programs as alternatives to the traditional

bachelor's degree method of many first-career teachers entrance into the field. These

range from fast-track programs that place teachers in front of students in as little as a few

weeks to graduate programs earning the scholar a teaching credential as part of a

Master's degree or beyond (Brindley and Parker, 2010). Brindley and Parker argue that

with such a vast array of programs, it becomes difficult to determine what overall aspects

of alternative teacher education are most effective. They continue by citing research by

Sindelar, Daunic, and Rennells (2004) that suggests that these programs can indeed be

successful in producing effective educators if they possess several key elements. The

most fundamental elements are stated as: having varied field experiences that are

effectively supervised and having exposure to *quality* teacher methodology courses.

Darling-Hammond (2000) indicates, however, that this is not the case in most of the fast-

track-type programs that are available to second-career entrants. While Brindley and

Parker (2010) tentatively indicate that traditional university-trained teachers are more

successful in their careers than their "quick-fix"-program counterparts, Tigchelaar et al.'s

(2010) review of literature shows mixed-results in regard to this success. They suggest

that the lack of pedagogical knowledge acquired by fast-track teachers could play a role

in decreasing the effective link between their expertise and its employment within their

classroom. Wilcox and Samaras (2009) collected data from interviews, progress reports,

discussions, and evaluations of four-second career entrants into the profession. They

collected this data in order to question how their particular teacher education program

could be improved. Though small in scope, what they found was that these individuals

indicated six areas of importance for an effective program: a) an integrated system of resource support; b) scaffolded mentorship; c) situated learning experiences; d) alternative new teacher networks; e) active coordination; and f) university support (p. 178). Sandoval-Lucero et al. (2011) corroborate these finding by showing that how teachers teach is indeed affected by the type of program in which they were involved. Within the aspects of resource and support, mentorship, and situated learning, teachers who learned how to teach through "in residence" methods (no formal pedagogical training involved, simply entering into the classroom) were less likely to develop into master teachers and teacher leaders. It is argued by Sandoval-Lucero et al. that these individuals tended to view good teaching as emanating from a passion or calling that was innate and unlearned. They showed, on the other hand, that teachers who went through formal training such as those of traditional methods or entrance into an alternative program based upon professional development were more likely to see teaching as something that could be learned and therefore improved. These educators viewed knowledge of pedagogy, cognition, and experience through mentorship as a means for this improvement. Sandoval-Lucero et al. also showed that the teacher education programs highly focused upon professional development and mentorship produced teachers with a greater theoretical knowledge base with which to fall back upon. This is in comparison to both the traditional and teacher-in-residence methods of teacher education, which did not foster this knowledge base. These methods were found to produce teachers who had fewer models with which to rely upon and implement when needed. The result was that these individuals would teach either as they had been taught (as described by Lortie's (1975) apprenticeship of observation), use methods offered by

immediate colleagues, or gravitate toward structured packages (Sandoval-Lucero et al., 2011). These methods all play a part in the move of the teacher toward the application of the conservative routines of objectivism within their classroom.

Knowledge that teachers become more effective when given varied experiences, mentors, and resources for support argues for the decrease in fast-track programs aimed at placing a teacher at the front of the classroom as quickly as possible. Though experience is certainly part of the teacher-training equation, it must be coupled with a large amount of theory, pedagogy, and reflection upon practice. All of which must be accomplished to the highest standards in order to ensure both the success of the individual within the classroom, but also that students are provided access to the best teachers. Another aspect highlighted by Wilcox and Samaras (2009) is the necessity of continuous collaboration between individual teacher-learners, the university, and the schools with which they are involved. In order to build reflective practitioners, successful programs find ways for new and learning teachers to collaborate among themselves. An example of this process can be seen in the cohort method, which attempts to reduce the isolation typically felt by beginning teachers. Wilcox and Samaras highlight that this collaboration must extend beyond the individual teachers to communication between teacher educators and the schools in which their teachers are involved. This communication with schools is necessary in order to meet the needs of the student teachers as well as the schools and to adjust to issues as they arise. The university can play a role by providing the adequate resources necessary for teacher education programs to operate affectively. This can be accomplished through the proper allotment of assets both human and monetary. Finally, most second-career teachers

indicate a necessity for their programs to be flexible, easy to enter, and provide quick results. The sense of security that is lost during the process of switching careers is not something these individuals wish to prolong. For this reason, how seamlessly an individual can make this change counts as a major factor in their decision. This is in accordance with Castro and Bauml's (2009) program accessibility. They found that career-switching candidates appreciated having instant access to information concerning pathways into teaching. Through the use of the internet, these students gathered relevant information and made the decisions most accommodating to their needs. Along with instant access, career-switchers were shown to value programs that have varied entry points and schedules. Due to the necessity of full-time employment while pursuing their credentials, most of these individuals could not attend the typically scheduled classes of traditional students. Classes on evenings and weekends were seen as valuable and offered a chance for these learners to develop schedules that allowed them to both go to work and to school.

The transition from a previous career into teaching can be made much less strenuous if programs take into account these concepts. A result of making this transition as easy as possible is more people who are willing to make this change. If more people are willing to enter the profession, while being held to high standards, the outcome will be an increase in quality within teacher education and therefore schools. Through these methods and the interconnection of all stakeholders involved, teacher education programs can be created that build upon and foster the skills of second-career entrants into the profession. This will therefore promote better and more authentic teaching.

<u>Authentic Instruction</u>

In today's modern and technological society with competition for jobs becoming international, the need to develop and impart students with relevant and necessary skills is essential. In order to accomplish this, educators need to enact techniques that are based upon real-world concepts, focused upon developing thinking and problem-solving students, and steeped in empirical results showing success.   Several models have been developed that propose to instill real-world and necessary skills within its students. Models such as those used throughout many countries in Europe and in Japan seem to focus curriculum upon necessary skills either for the various careers that they may face or for entrance into the university—but not for both. Many students are tracked into either academic or vocational paths dependent upon either choice, in the case of America, class standing, in the case of Germany, or high-stakes testing, as in the case of Japan (Brint, 2006; Baker & LeTendre, 2005). Though several authors propose methods in which to achieve greater relevance within school curricula, Newmann and Wehlage (1995) offer four main concepts as the "solution" to creating quality schools that ensure this success. Since the development of relevance is dependent upon "place," Newmann and Wehlage offer a construct that has the ability to be implemented within any particular school. The qualities that they describe maintain a focus on: student learning, authentic pedagogy, school organizational capacity, and external support. Within these "circles of support" a school is given the greatest chance of creating and sustaining high levels of learning—the goal of a school system. Newmann and Wehlage's concepts can be further combined to focus on student learning through authentic pedagogy employing a connection between the school and the community (external support), and creating the organizational capacity

for the school or district to accomplish this through the development of professional learning communities (PLCs). It is by enacting the capacity for teachers to develop authentic lessons, connect to the community, and engage in relevant teaching that student achievement is increased and success can thereby by claimed (Choo, 2007; Gambrell, Hughes, Calvert, Malloy, & Igo, 2011; Kemker, Barron, & Harmes, 2007; Yonezawa, Jones, & Joselowsky, 2009).

The Behaviorist Approach in Today's Schools

Among the most common methods of learning typically employed in today's schools are those that are based upon the objectivist ideals of learning where teachers simply pass knowledge to students in its final form. These make use of the behaviorist concepts of reinforcement and punishment matched with the objectivist approach entailing that learning be the process of acquiring knowledge of the "outside world." Under this assumption, knowledge is transferred to the learner through rote memorization using grades as both positive reinforcement and punishment. While this method of learning works for a small percentage of students, it does in fact succeed in what a behaviorist approach is meant to do—change behavior. Unfortunately, these new behaviors develop students who are motivated only by grades, who "cram" for tests, while memorizing its content—forgetting the information the very next day. The result of many behaviorist approaches are students who are never given the chance to encode information, find its meaning within their own lives, and are therefore unable to retrieve what they were supposed to have learned, or use this knowledge in various contexts. As Driscoll (2000) states, "repetition can only go so far" (p. 104).

Piaget's Active Cognition and Learning Theory

Beginning with Piaget's research on learning, the idea of students needing to be active participants in the learning process was developed. Siegler (1998) describes Piaget's belief likening "children's thinking to that of scientists solving problems about the fundamental nature of the world." He continues by stating how "Piaget emphasized cognitive activity as the means through which development occurs" (pp. 29-31). In fact, he sometimes described his theory as "interactionism," the combination of heredity and environment leading to one's cognition (Driscoll, 2000). Piaget suggested three processes that lead to one's interpretation of the world. The processes of assimilation, accommodation, and equilibration are "active processes by which the mind transforms, and is transformed by, incoming information" (Siegler, 1998, p. 31). Students must first assimilate new information by connecting the new ideas to what they currently know. When these concepts are in disagreement with what is already known, students begin to accommodate, or modify their thinking. Finally, once their thinking shifts, they make sense of the new information—it becomes equilibrated. Piaget described six stages of development from birth to adulthood. His theory was that a learner was only cognitively ready to learn within their developmental stage. Though much of Piaget's thinking is seen to be relevant even today (as seen by the successes of repeated testing of his hypotheses), this last notion was to be scrutinized by his predecessors. In fact, Piaget argued that it was nearly impossible to "accelerate" the development of a child beyond the stage they were currently in—unless they already possessed aspects of the next stage (Siegler, 1998). Beilin (1977) disputes this claim explaining how, interestingly enough, "young children can learn more than Piaget thought they could, and they can benefit from

a greater variety of instructional techniques" (as cited in Siegler, 1998, p. 58). However, Piaget's role of active cognition—learners forming their own interpretations about the world through experience—was to be a foundational point in educational psychology. How students develop these interpretations, how they process the information, and how they recall this knowledge was the next query. The Cognitive Information Processing Theory (CIP) attempted to do just this.

Cognitive Information Processing Theory (CIP)

The Cognitive Information Processing Theory (CIP) attempts to determine how information gets from outside (the environment), is processed, and becomes part of one's memory. This theory states that information moves linearly from sensory memory (associated with the senses and holding information briefly), to short-term memory (likened to consciousness where one "thinks" about input), and finally to long-term memory, which is the permanent storehouse for information. This seemingly simple representation of how information is processed is frequently compared to computer modeling. In fact, Siegler illustrates the creation of connectionist theories, which are computer simulations attempting to depict the workings of the brain. The most perplexing part of this theory is how information gets from short-term memory to long-term permanence—how it is encoded. The encoding process refers to how incoming information is related by the learner to information that she or he already knows. In this way, the information is made more memorable. Driscoll (2000) describes that "left to their natural inclinations, humans will always try to make things meaningful, to fit some new experience into the fabric of what they already know" (p. 91). Encoding makes the knowledge permanent. Though there are many techniques that humans use to facilitate

the encoding of information (mnemonics, imagery, rehearsal, chunking to name a few), it seems that relevance of the information to the learner, while providing a connection of ideas and concepts to previously learned information, is the most effective.

Driscoll (2000) informs us of Ausubel's belief that "meaning occurs when learners actively interpret their experiences using certain internal cognitive operations" (p. 116). It is this internalization of information that allows it to be encoded within the learner. While most school learning seems to be of the reception type, what Ausubel described as "the entire content of what is to be learned is presented to the learner in its final form," meaningful learning can only be accomplished through relevant and stimulating material. Driscoll continues with "in discovery learning, on the other hand, learners are required to 'rearrange a given array of information, integrate it with existing cognitive structure, and reorganize or transform the integrated combination in such a way as to create a desired end product or discover a missing means-end relationship'" (p. 117). Learners thereby begin to create their own meaning.

Ausubel suggested that an anchoring idea was needed for a learner to begin to connect new information. This anchoring idea must be something that is relevant to the learner and provides a context for which further learning can be related. Ausubel proposed that "retention involves maintaining the availability of acquired information so that it may be accessed for use at a later time" (as cited in Driscoll, 2000, p. 125). Initially, meaningful learning promotes easy recall of concepts due to the need for learners to be cognitively aware of what task they are performing. Ausubel also proposed that over the course of time, this information would begin to morph into a single inclusive concept rather than the many individual facts that were at first presented. Students would

remember only the "gist" of what was presented, creating yet another anchoring concept for further learning. Though over time the details of what was learned would fade, Ausubel argued that a net gain would be achieved as a result of meaningful learning when compared to that of rote learning. Ausubel notes that there is "memorial residue of ideational experience," which enables the concept or proposition to be "more functional for future learning and problem solving occasions" (as cited in Driscoll, 2000, p. 125). This notion of the linkage and organization between previously learned and new information was further enhanced through what was to be first described by Bartlett (1932) as schema and later integrated into what Anderson, Spiro, and Anderson (1978) called schema theory (as cited in Driscoll, 2000). In either case, the knowledge of exactly how new information is incorporated into one's existing interpretation of the world is at question.

Schema Theory, as proposed by Anderson et al. (1978), suggested that "what is remembered is largely a function of what was understood to begin with." Additionally, Driscoll (2000) indicates that further studies concerning schema theory "reveal that both comprehension and memory are driven by meaning, or gist" (p. 129). This theory suggests that learners typically do not remember the fine details about a subject, rather they remember broad generalizations. Within the context of learning, each "gist" or theme can be compared to Ausubel's anchoring ideas as a point with which to attach new concepts. It therefore makes sense when Driscoll states that "the amount of prior knowledge possessed by learners and their interests can affect their interpretation and recall of information as well as their ability to solve problems" (p. 130). In essence, the more themes or schemas a person possesses, the more anchoring points she or he has to

relate information, making that information relevant and meaningful. Ausubel described this as readiness for learning.

Ausubel indicates that "the most important factor influencing learning is what the learner already knows." It is therefore essential that, if we are to teach something, we have an understanding of what the learners already know. The concept of a spiraled curriculum is built upon this premise. For students to truly and meaningfully understand a concept, they must continually be exposed to that concept (anchoring idea) while building upon their knowledge of it with further information. Theoretically this process never ends as new information is always incorporated and connected. As one learns more about the world he or she will obtain an ever-closer approximation to the truth about the world, however they can never know the full truth.

Vygotsky, Bruner, and a Move Toward Constructivism

One can see that as relevant and meaningful schemas become more and more interconnected, a learner's ability to remember and understand information becomes enhanced. This model has been described by the "rhizome metaphor" in which there is no beginning or end. Break the model anywhere and the only effect is that new connections are made. As learners connect and integrate new concepts and ideas into their current schemata of the world, they create meaning for themselves. The active and ongoing assembly of one's knowledge has been described within the constructivist theory of instruction. Driscoll argues that "there is no single constructivist theory of instruction" rather there are researchers from various fields that use aspects of the constructivist theory (p. 375). Bruner's discovery learning is a constructivist method that emphasizes the importance of connections to previously learned material, authentic or meaningful

learning—learning in context, and the social and political role in education (Driscoll, 2000; Siegler, 1998). Vygotsky (1978) studied the social role in learning. From the very first forms of human communication (cooing, crying, pointing), to the more complex transfer of cultural norms and mores, Vygotsky stressed that neither of these were simply invented nor passed down by adults, rather these were generated after a series of changes within the learner. This statement indicates how a learner creates his or her own knowledge using both individual thought processes as well as information acquired from others. The learner constructs their own meaning from what they receive from others within the context of the situation in which they are placed.

Social Learning Theory

Siegler (1998) emphasizes how people are profoundly social animals. Siegler alludes to Piaget in signifying that children also greatly influence each other's development. School-age children and adolescents collaborate effectively when they attend to and discuss each other's ideas (Berkowitz & Gibbs, 1985). The previous statements inherently emphasize the social aspect of student learning. Since the goal of teaching and learning is to change the thought process of the learner, "the communicative aspect of collaboration during learning can also have the effect of transforming all parties involved" (Pea et al., as cited in Driscoll, 2000, p. 386). If we acquire knowledge about the world through the communication and collaboration of others in our society, then it is imperative that students are given the opportunity to work together within the school setting to allow for this to occur. The social aspect of learning can be related back to the schema theory in that the more opportunities for students to make connections with a concept (that is, the more perspectives a student comes in contact with), the greater

chance that she or he will incorporate the information into their own understanding of the world. The classroom with a teacher passing knowledge to the student provides only one of these connections to information. This method has repeatedly been proven insufficient to supply the necessary connections for student learning. Connecting student to student and student to community offers a powerful research-based approach for an educator to increase the links between the student and information. The social learning theory enables access to varied perspectives associated with topics. Once these perspectives are provided, the student can then begin to construct their own conception of the world.

The Social Constructivist Approach

Driscoll (2000) states, "as experience grows broader and deeper, knowledge is represented in the individual's mind as an ever-closer approximation of how the world really is" (p. 376). It is argued by the more modern social constructivist theory advocates that this representation must be constructed or built within the learners mind. The social constructivist theory proposes that this can only be done through analysis of the information's social and political context, as well as through the testing of one's own concepts about the world. Much research concerning the importance of the social role in education has been conducted. Researchers such as that of Barr and Parrett (2008) emphasize the importance of collaborating with parents and families, creating small learning communities, developing respect within classrooms, and supporting social and emotional growth. These research-based and proven methods to improve schools only signify the importance of the social context within learning. Henderson and Gornik (2007) emphasize the importance of the "community" aspect within education. This community must be larger than the few teachers and therefore must be expanded to

include students, teachers, administrators, parents, local business, and any other people that can provide a positive impact on students. It is from these social connections that students are provided the opportunity to develop meaning.

Driscoll (2000) specifies the five key recommendations for constructivist learning. These are:

1. Embed learning in complex, realistic, and relevant environments.

2. Provide for social negotiation as an integral part of learning.

3. Support multiple perspectives and the use of multiple modes of representation.

4. Encourage ownership in learning.

5. Nurture self-awareness of the knowledge construction process.

Though the above recommendations were designed from a "pure" constructivist methodology, the importance of the "social" and thus its relation to social constructivist theory is obvious.

Bruner conveys to us that "learning in most settings is a communal activity, a sharing of culture" (as cited in Driscoll, 2000, p. 385). Brown, Collins, and Duguid (1989) imply that collaboration is more than just asking students to work together to share knowledge. Through this process, they will arrive at solutions that would otherwise not be created individually. This "collective wisdom of the crowd" becomes a central factor in social-constructivist theory within a school setting.

<u>Social-Constructivist Pedagogy</u>

The development of the social constructivist theory of learning emphasizes the building of one's own knowledge through careful and precise pedagogical practices. Enabling the learner to test her or his own conceptions about the world is not equivalent to setting students free to do whatever they desire within the classroom—as discovery learning and constructivist theory has become in many classrooms. Instead, these techniques require precise and well-defined instructional methods and goals. Some of these methods include Problem-Based Learning (PBLs), collaborative learning, role-plays, debates, and the more recently applicable computer and web-based learning—the goal of these techniques being development of reasoning, critical thinking, cognitive flexibility, and reflection (Driscoll, 2000).

The social-constructivist theory is currently growing in popularity among today's schools and classrooms—though by far, objectivist methods still are emphasized. Stemming from Vygotsky's (1978) ideas concerning the importance of the social aspects of learning, social-constructivist theory allows "learners to test their own understanding against those of others, notably teachers or more advanced peers" (Driscoll, 2000, p. 377). Social constructivist learning enables students to become active and engaged learners. These learners attempt to find meaning and relevance within the information presented before them. They openly collaborate and communicate in order to both spread new ideas, as well as further construct and ingrain information into their conception of the world. The social constructivist learning theory makes use of current brain research in attempting to create relevance of material while exposing students to a wide variety of viewpoints, interpretations, and skills. This learning should be connected to real-world

issues and based upon skills that practitioners within a particular subject would use. In essence, current brain research shows us that in order for learning to be most affected, teaching needs to be authentic to what students will need as active participants in society. The closer a school can get to becoming a mimic of the world beyond its walls, or better yet, beneficial participants, the more effective it will become.

Authenticity

The term authenticity and authentic teaching, as described in its educational sense, takes on many forms. Kenkmann (2011) defines it as the "flow of power" between student and teacher within a learning space (p. 280). She continues by articulating that authentic teaching and learning revolves around the student and teacher being "fully present" and aware of their "connectedness to each other and their environment" (p. 280). Brookfield (2006) defines authentic teaching in the sense of honesty based upon the criteria of congruence between words and actions, full disclosure of information relevant to teaching, and responsiveness to students. Seminal work by Heidegger (1962) speaks of authenticity as the state of being in which students are given the ability to see how their own experiences fit within the context of what is being learned. In essence, Heidegger indicates that this is the moment in which a learner begins to think for themselves and create new meaning developed through reflection upon learned information. Others, such as Newmann and Wehlage (1995) and Petraglia (2009), emphasize the authenticity of instruction as its degree of connectedness with the outside world. Dewey (1938), however, argues against the necessity of a connection between the classroom and something external (the outside world), choosing to focus more upon communication and meaningful experiences within the classroom environment. It is

Newmann, Bryk, and Nagaoka's (2001) approach to authenticity that has yielded

empirical results showing improved learning within the classroom (Avery, 1999;

Gambrell et al., 2011). It is for this reason that this paper will focus upon Newmann and

Wehlage's (1995) definition of authentic instruction.

Additionally, in a world of increasing complexity with ever fewer resources

available to education, the more effectively we can develop students who see the

connection between school and the "real-world," are exposed and aware of the careers

and opportunities available, and are able to make decisions steeped in knowledge and

rationale, the better and more successful schools will be. In essence, if we make schools

more authentic, we stand the greatest chance of making schools more useful and therefore

more valued by the communities within which they participate.

Standards of Authentic Instruction

Newmann and Wehlage (1995) speak of five standards of authentic instruction in

order to develop "sustained, disciplined, and critical thinking on topics that have real-life

relevance" to students (Kemker et al., 2007, p. 307). These standards are based upon the

avoidance of two common "maladies" which Newmann and Wehlage (1995) argue make

conventional schooling inauthentic. These are: 1) typically the work that students do

does not allow or compel them to use their minds well, and 2) most work in schools has

no intrinsic meaning or value beyond achieving grades within the school. The five

standards that they have developed aim at maintaining higher-order thinking, building a

depth of knowledge, connection of material to the real-world, the ability and commitment

to substantive conversation, and the adequate support of student achievement. These

topics, which will be discussed in further detail, create the effective learning

environments necessary for young people to become active participants within a classroom, thereby promoting achievement and success (Newmann & Wehlage, 1995; Yonezawa et al., 2009).

Newmann and Wehlage (1993) speak of the development of higher-order thinking (HOT) through the manipulation and combination of information to synthesize, generalize, hypothesize, or arrive at a conclusion or interpretation. They highlight the element of uncertainty that is created within this process. Kemker et al. (2007) discuss the creation of new meaning when the students organize this information and see how it fits together within the schema of their own thinking and lives (Driscoll, 2000; Siegler, 1998). This connection beyond the classroom into the life of the student enacts both the depth of knowledge and connection beyond the classroom constructs of Newmann and Wehlage's (1993) standards. Under the context set by Newmann and Wehlage, fewer topics are covered in order to ensure that these themes are learned to a much greater depth. Kemker et al. (2007) shows us how the use of the internet allows students to more readily investigate the multiple perspectives of an issue in order to develop the depth of their understanding. A continual spotlight must be presented upon the connections between both minor and major topics in order to persistently develop an ever deeper understanding, which begins to converge on issues outside of the classroom as well as the student's own life. This connection beyond the classroom is described by Newmann and Wehlage (1993) as "connectedness to the world." This is a lesson that has meaning and value beyond simply obtaining a grade within the classroom. A truly authentic lesson would impact others and would exhibit the following: 1) addressing of real-world public

problems, or 2) students using personal experiences as a framework for constructing knowledge.

The development of higher-order thinking to create a depth of knowledge through connection to the real world has the potential to create students who are able to see the nuance that is inherently present within a topic. Students who are at this level of understanding are therefore able to have substantive conversations about the issues that revolve around the subject, employing their own personal views while being exposed to alternate interpretations within this discussion. This is in accord with the social constructivist theory. Newmann and Wehlage cite classes with little to no substantive conversation and show how they typically involve one-way conversations of teacher lecture. They describe these lessons as lists of facts and concepts that tend to be choppy and incoherent. They continue by describing the three features of substantive conversation as: 1) a considerable interaction about ideas within a topic such as raising questions and applying ideas; 2) students sharing ideas in a non-scripted or non-controlled way; 3) the dialogue builds on ideas to promote the improved collective understanding of the group (p. 10).

Finally, Newmann and Wehlage's concept of authenticity involves the support for student achievement. This support is characterized by "high expectations, respect, and inclusion of all students in the learning process" (p. 10). Kemker et al. (2007) underlines the idea that social support can be both between teacher and student and the students themselves. This enables the creation of an environment where participants are free from the fear of being ridiculed or embarrassed and feel able to express their opinions and ask questions of each other.

Newmann and Wehlage (1993) and Kemker et al. (2007) acknowledge that achieving all of these qualities within a single lesson is most likely not realistic. These are however, good guidelines to follow in order to create the dynamic learning environment necessary to achieve success through relevance in today's schools.

Empirical Evidence for Authentic Pedagogy

Recent research has attempted to provide empirical evidence linking authentic pedagogy and instruction to increased student success within the classroom. Choo (2007) observed a significant difference between lecture-based lessons and the more authentic style associated with activity-based learning. Activity-based learning follows Lave and Wenger's (1991) situated learning in which an emphasis is placed upon the activities that are germane to application of what is being learned while taking place in a similar setting to those who would use the information of a particular subject. In Choo's (2007) study, a comparison was made between these two types of pedagogy within a vocational institute in Singapore with the majority of students being between 18 and 19 years of age. Choo found a significant difference between conventional teaching and more authentic instruction—with authentic instruction having mean scores that were higher on evaluations. Interestingly, McLellan (1991) found that similar outcomes could be achieved through "virtual surrogates" of the actual work environment, indicating that authenticity can be achieved through simulations both within the classroom and through use of computers.

Another study by Avery (1999) found a strong correlation between authentic instruction and authentic student performance. She also found a more modest correlation between authentic student performance and student engagement. Since it can be argued

that a more engaged student will be more cognitively active, as seen through Piaget's work, by using authentic teaching styles she or he is likely to learn to a greater extent. Within this same study, Avery found a statistical significance between scores on an authentic task as compared with a traditional multiple-choice test with authentically taught students performing higher. This indicates that students who perform high on authentic tasks also have improved scores when assessed through traditional testing methods. She highlights though that this correlation was small, adding that "teachers may focus on critical thinking and inquiry in their classrooms, but if they give low-level, basic skills tests, their students do not have the opportunity to demonstrate more authentic work" (p. 372). She did show, however, that the authenticity of instruction accounted for 40 percent of the difference between scores on authentic-type assessments—the greater the degree of authentic teaching, the greater the score on performance-based assessment.

Other recent research shows that significant increases in student learning can be achieved as the result of authentic instruction across disciplines, such as literacy (Gambrell et al., 2011), math, and science (Hanegan, Friden, & Nelson, 2009). In fact, Newmann and Wehlage (1993) themselves cite several sources that show positive achievement outcomes when teaching is focused upon thinking (teaching for thinking). Both quantitative and qualitative research indicates the effectiveness of authentic instruction within the classroom. This type of instruction requires little to no additional resources with the exception of a commitment to its implementation. Beginning with teacher education courses and culminating in school leaders who both demonstrate and demand these techniques be implemented, authentic teaching and learning is applicable to

a wide variety of school settings and contexts. It is the responsibility of educators to create and implement techniques based upon sound cognitive science and shown to be successful through empirical analysis. Authentic instruction and pedagogy incorporates both of these characteristics.

Creating an Authentic Environment

Huang (2011) discusses the need to move away from the de-contextualized learning used to acquire skills solely necessary to do well on tests. Huang argues that higher education has long been criticized for teaching in this manner and a move toward more relevant and real-world learning should take place. Examples of this type of teaching and learning include team-based learning and project-based fieldwork that are used in conjunction with higher education professional courses. This concept of including real-world activities, however, should not be limited to professional courses within higher education, but be used to provide access to real-world skills for *all* students. Since it can be argued that a large part of the purpose of education is to prepare students for careers and the workforce (as well as creating citizens able to participate in a democracy), then providing access to the world outside of the classroom walls is imperative (Guttman, 1999; Meier, 2002). Huang (2011) urges us to create classroom activities that closely resemble practice outside of the school. These authentic group-based activities are similar to the problem-based learning scenarios described by Yew and Schmidt (2012) and are more similar to tasks that are expected of members of a particular workforce. Throughout the learning process, students are encouraged to present and be exposed to others' ideas, build upon contributions of the group, and develop new and substantive understandings of the material in which they are in contact (Hadjioannou,

2007). Kemker et al. (2007) discuss how even within the elementary school setting

"students' work in the classroom should prepare them for the intellectual tasks that will

be demanded of them as adults" (p. 307). Huang (2011) presents another, arguably even

more authentic, method—peripheral participation. The peripheral participation model of

instruction enables students to actually become a part of the community in which they are

to be involved. Huang argues that students develop a sense of "self" through this process

while the development of skills and identity become meshed in one process. Huang

(2011) and Lave and Wenger (1991) talk about the limitations of this model in that

involvement within the community will inevitably result in time being spent on

unexpected tasks that are typically not related to the learning curriculum and educational

objectives of the class. Additionally, they discuss the limitations of physical space and

allotment of time involved in complex educational endeavors such as peripheral

participation learning. Huang (2011) does discuss the need to integrate and find a

balance between the classroom-based tasks of a collaborative problem-based learning

scenario with the peripheral participation model. The result of this marriage is a student

who spends time both inside the classroom as well as at the workplace. Realistically,

however, under the current circumstances of most public education environments

(monetarily, temporally, and logistically), this mixed-model would be extremely difficult

to implement and would be accessible to only a minority of students especially in large

and more comprehensive high schools. Educators must therefore focus on the more

readily implemented in-class approaches to authentic instruction.

<u>Leadership Toward Authentic Instruction</u>

Much of the research emphasizes the importance of developing authentic techniques within the individual classroom. Donaldson (2006), Elmore (2008), and Fullan (2007) highlight the importance of leadership at the school level in order to foster the growth of authentic practice within the classroom. Elmore (2008) talks about the principle of "reciprocity of accountability" (p. 93). This idea emphasizes that leaders, attempting to improve their schools, have an obligation to provide teachers with the capacity to implement demands for increased performance. In essence, it is the leader's responsibility to ensure that teachers have the time, capability, and knowledge to cultivate authentic practice within their classrooms. The school leader is therefore equally responsible for the success or failure of such implementations. All too often today's teachers are expected to produce more with less and yield greater outcomes while never being provided additional resources or even the time to develop them (Fullan, 2007). Donaldson (2006), Elmore (2008), and Fullan (2007) urge educational leaders to take responsibility in becoming the principal teachers that the title so clearly states. In order for an educational leader to promote the highest-quality teaching and learning they must look not only to the students, but to adults as well. It is clear that educational leadership must focus on student success, but this same leadership must also focus on the adults in the school setting (Donaldson, 2006). As Donaldson states, "leaders engage in the issues and decisions of teachers, students, counselors, and parents" (2006, p. 24). This comprehensive form of leadership begins the process that moves toward a transformational school. This movement toward quality teaching becomes self-perpetuating and, as Donaldson (2006) also states, "nothing convinces busy educators

that they should work together better than seeing that it makes each person more successful" (p. 106). Through a leader's feedback, each individual can examine the results, share data, and problem solve for questions and challenges that arise within the school. It is as a result of this examination and effort that ownership begins to take place (Heifetz et. al., as cited by Donaldson, 2006). A leader who fosters this ownership is then creating the commitments and the "action-in-common" that is so crucial to creating an organizational culture that supports and promotes authentic, high-quality teaching and student achievement. As a leader begins to move toward a transformational school, reliant upon authentic and research-based methods, she or he will need to successfully foster this culture through targeted and highly effective professional development.

Organizing a School Toward Authenticity

Organization of a school is a key aspect of ensuring success. "When schools are unable to coordinate teachers' diverse aims for students into a curricular mission focused on high quality student learning…it is difficult for even the most gifted teachers to make a positive difference for students" (Newmann and Wehlage, 1995, p. 29). Research presented in numerous studies shows how it is the teaching within a school that most directly correlates with affecting success on its students (Berg, 2010). Newmann and Wehlage (1995) state, "all the core activities of [a] school must be oriented toward the vision of student learning" (p. 3). In other words, for a school to be successful, it must have a clear and consistent focus on, and be structured around one thing—student learning. Goals to achieve this learning must be clearly communicated to teachers and staff as well as the students and parents involved. At the individual teacher level, this increase in learning can be accomplished through what Newmann and Wehlage term

authentic pedagogy. But, at the school wide or even district level, an organizational

structure becomes necessary to ensure that students are continually exposed to teachers

implementing best practice. Research by Berg (2010) shows that students who are

exposed to three consecutive years of effective teaching demonstrate significant increases

in both reading and math skills. It is obvious then that exposing students to only a single

teacher who is using authentic techniques short-changes both the teacher and the student

alike. The student in that she or he will once again be exposed to the rote lesson and

recall format typical of non-authentic teaching; their higher-order thinking developmental

increases put on hold until exposed to another effective instructor. The teacher because

their hard work and dedication to students and their career will once again be viewed

through the lens of a student who is less capable than they could be of higher-order

thinking. In order to maintain consistency across the many individuals involved within a

student's educational career, all teachers with which they are in contact must have a clear

and consistent focus. This focus may be brought about in two significant ways: 1) the

development of Professional Learning Communities (PLCs) as a method to spread ideas

and create focus, and 2) a commitment by educational leaders to implement this model

(Dufour, DuFour, & Eaker, 2008). The implementation of the PLC model should not be

thought of as incorporating only individual teams but must consist of the entire school,

the district, and the community within which it is embedded. Additionally, teacher

training at the university level must cultivate teachers as well as administrators with a

thorough knowledge and understanding of authentic pedagogy, PLCs, data-driven

teaching methods, and research literacy. With this knowledge in place, teaching might

become a profession based in educational and cognitive science, continually adjusting to

ever-present change, and able to implement a systematic methodology in response to that change. The first step of this process is giving teachers the ability to work together as teams at all levels (individual, cross-curricular, school-wide, and even district-wide) in order to problem solve and develop skills and techniques necessary and relevant to the contexts within which the teachers are placed. In order to do this the school should be organized to ensure collaboration and a spread of ideas that work. An example of this is a professional learning community.

<u>Using Professional Learning Communities to Promote Authenticity</u>

Research has shown that Professional Learning Communities (PLCs) improve student learning (DuFour et al., 2008). PLCs allow teachers to "pursue a clear shared purpose, engage in collaborative activities, and take collective responsibility for student learning" (Newmann and Wehlage, 1995, p.30). These communities allow for the "fostering of mutual openness, trust, and affirmation" as an essential element to building a successful school for both students as well as teachers (Donaldson, 2006, p. 10). The formation of an "us," not a "me and you," mentality encourages participants to work hard to be successful for not only themselves but for the entire group.

Changing the context and effectiveness of schooling is a social endeavor (Comer, Haynes, Joyner, & Ben-Avie, 1996; Donaldson, 2006, Elmore, 2008). Thus, the educators in a school need to act as a community with a shared vision as they strive for excellence (Barr and Parrett, 2008; DuFour, 2004). Working together as a community to increase student achievement and school effectiveness involves building a culture of collaboration, shared responsibility, continuous improvement, and data-driven decision making (DuFour, 2004). Thus, it can be argued that teacher professional development

through collaboration and reflection is essential to the process of creating the culture of shared vision, goals, and actions associated with highly effective schools. If Lortie's (1975) assessment of teacher isolation is to be used as a starting point, then the use of the PLC model allows the greatest chance to break from this mold. PLCs provide access to others' ideas within a school and, in short, create greater degrees of authenticity simply through the use of cross-curricular activities and the building of better lessons. Fullan (2007) stresses the link between professional communities, teacher learning, and student performance as he cites work performed by Newmann and Wehlage (1995). Professional learning communities can provide the structure that enables an increase in teacher attention toward pedagogical knowledge. This focuses teacher energy on the enhancement of instruction to increase student achievement (DuFour, 2004; Elmore, 2008; Fullan, 2007). In PLCs, teachers are continually learning from each other while collecting data to know when each student has learned to high levels. This increase in teacher pedagogical knowledge, coupled with the use of data, is anticipated to manifest as increased student learning (DuFour, 2004; DuFour, DuFour, Eaker & Karhanek, 2004). Thus, development of PLCs can be seen as opportunities for teacher professional development and the spread of authentic pedagogy across an entire school.

Lee, Smith, and Croninger (1995) found that schools with certain structural elements, such as reduced hierarchy and increased collaboration, are more likely to experience higher rates of student achievement and reduced achievement gaps. Such organizational structures align with what DuFour (2004) describes as effective ways of structuring professional learning communities. Thus, PLCs are likely to lead to a culture

of support and a sustained focus on promoting high-quality teaching and learning (Fullan, 2003).

Professionally Developing Authentic Teaching

Fullan (2007) states that much professional development is dedicated to the individual growth of teachers related to their content knowledge, skills and dispositions. He argues that, though this is indeed important, unless it is "connected to collective learning, it fails to influence the culture of the school" (p. 164). He urges leaders to develop school-wide professional communities similar to DuFour et al.'s (2008) PLCs. DiPaola and Hoy (2008) state that "teachers think of professional development as...single-event activities that are often not directly related to their classroom practice or their ability to help students learn" (p. 129). In order for a leader to develop authentic teaching within a school, she or he should possess experience within the classroom, have good social skills, be knowledgeable of a wide range of subjects, and be able to efficiently and effectively manage the daily workings within a school. They also need to have a *vision* of what authenticity is, means, and looks like within a school. This comes from experience both inside and outside of the school walls. By creating positive personal connections through the use of the PLC model and building trust among her followers, an instructional leader can create an environment of authenticity through the use of supervision and evaluation of the teacher (DiPaola & Hoy, 2008). This might result in the creation of successful professional development toward authentic instruction. With targeted and ongoing training, and an expectation of the continuous use of the skills learned, a principal can begin to achieve the highest levels of authenticity and therefore learning within their school. In order to create a school where the concepts stated above

are most effectively implemented, it is very important to create a culture that both

expects, supports, and promotes high-quality teaching and learning. Unfortunately, this

is typically not the culture found in most of our schools. In order to break out of this

cycle, we must first analyze the roadblocks that make changing the system difficult.

Socialization and Enculturation

As new teachers enter into the profession they are instantly faced with several

harsh realities. Most obviously, they realize that what they were taught within their

teacher training classes at the university will not help them in surviving the struggle that

awaits them each and every day. Cherubini (2009) cites work done by Ryan (1986) and

Fuller (1969) looking at the stages that new teachers inevitably pass through. The initial

phase of excitement and positive attitude is, after the first 4 to 5 months of work, replaced

by the realization of both the difficulty and the impossibility of the job placed before

them. The beginning teacher has thus entered into what Ryan terms "the curve of

disenchantment" (as cited in Cherubini, 2009, p. 86). At this point, the novice teacher

begins to see that the teacher education that she or he received is now irrelevant and they

must begin to find coping methods in order to "survive." Kardos, Johnson, Peske,

Kauffman, and Liu (2001) indicate that this period of time in a teacher's career can be

described with such words as "anxiety," "fear," and "trauma"—all of which do not lend

themselves to a person's smooth transition into a profession or workplace. In fact,

beginning teachers, indeed feeling all of the emotions mentioned above, are asked to

perform in the same manner and at the same level as veteran teachers who may be located

in the room next door (Kardos et al., 2001). This typically places new educators into what

is frequently described as a state of survival (Cherubini, 2009; Hoy & Woolfolk, 1990;

Lortie, 1975; Staton & Hunt, 1992; Zeichner, 1980). It is this state of survival that then leads the novice teacher into isolation and hiding their practice for fear of being reprimanded or embarrassed in the face of other more experienced teachers and administrators. They attempt to maintain their professional identity through isolating and insulating themselves from outside observation into their troubled classrooms. Several outcomes become apparent in light of this experience. One, new teachers become disillusioned, eventually "burn-out" and become another statistic in the nation's teacher attrition rate. Or two, they develop techniques that have been deemed successful in controlling student discipline and transferring information in the past. Additionally, the fact that most of his or her peers are teaching using the same behaviorist methods allows the novice teacher to blend in with the crowd and thereby decrease the chance for reprimand and public shame (Driscoll, 2000; Elmore, 2008; Fullan, 2007). The idea here is that if the administrator walked into the room at least he or she would see students working on *something*—and typically this is exactly what most pre-reform administrators want to see.

Research has shown that nearly half (46%) of newly hired teachers leave the profession within the first 5 years. Additionally, 33% of these leave within the first 3 years (Fullan, 2007; Kardos et al., 2001). Fenwick and Weir (2010) argue that some degree of change within the teaching force keeps new and fresh ideas within the profession. They also postulate that rates like these seen above can only indicate a problem within the system as well as a large waste of resources in the education and induction of these people. In fact, the large amount of time and resources spent by school districts bringing beginning teachers "up to speed" is therefore wasted when that same

teacher decides to leave the profession—typically after 3 to 5 years (Cherubini, 2009; Fenwick & Weir, 2010). If the new teacher is going to persist through the hectic first years of the profession, they need to find a methodology that will sustain their limited time and energy. They look to others around them in order to determine how they are able to survive within the system. They begin to adopt the techniques and practices of those who surround and came before them. This is done with little to no thought about how this matches with theory or good practice.

Socialization

Socialization can be defined as the adjustment of one's actions to the demands placed upon them within a workplace (Hargreaves, 1995). Parsons (1951) describes the socialization process as finding an orientation satisfactory to function within a role, while Staton and Hunt (1992) simply describe this as the process of acquiring the attitudes, knowledge, and skills of a group in which an individual is trying to become a member. This coping process is the inevitable outcome of attempting to make sense of a situation. Though this paper focuses on the novice teacher, much of the literature indicates that this process is ongoing throughout the course of one's career (Staton & Hunt, 1992; Zeichner, 1980). In either case, as a novice teacher moves through their career from student, to pre-service teacher, from professional to veteran, he or she will be confronted with many socializing agents. Lortie (1973) emphasizes four key processes that are involved in teacher socialization; some beginning long before the pursuit of a teaching career even begins. Lortie describes these as the socializing effects caused by:

1) Experiences in early childhood

2) Peer influence

3) Persons with evaluative power (i.e., principals, vice-principals)

4) Pupils within the classroom

Zeichner's (1980) review of the literature exposes additional processes.

He continues this list of socialization agents by adding:

5) Lateral roles and non-professional influences

6) Ecology of the classroom

7) Teacher subculture and the bureaucratic structure of schools

Though these factors affect both the novice as well as the veteran teacher, the process of socialization is more likely to influence those who are at the earliest stages of their career. It is the novice teacher in the first few years of practice that stands the greatest chance of not only being socialized to the norms within the school but also being overloaded, overwhelmed, and subsequently at risk of burnout and resignation. The focus of these studies has implications that concern both the improved education of students, as well as teacher retention. The squandering of resources both monetary and human inevitably becomes part of the equation when districts acquire, train, and then lose novice teachers. For this reason, I will attempt to limit my discussion to those aspects that readily involve the novice teacher—though it can certainly be said that all of these forces play a role throughout one's career.

In Allen's (2006) literature review on teacher socialization, three major groupings can be ascertained to guide this discussion. These are the influences of students; the ecology of the classroom; and the institutional characteristics of schools, which include colleagues, evaluators, and the various levels of bureaucracy in which they are embedded. Additionally, this paper will analyze the influence of previous educational

environments on the novice teacher. These influences can be described as those characteristics, traits, and practices learned from other teachers, educators, and mentors throughout one's student and work careers prior to entrance into the school system.

Previous Experiences

Before a discussion about aspects of enculturation and socialization within the school can be accomplished, we must first discuss how previous experiences of the teacher affect her or his conception of learning and education within a school system. These experiences most notably come from parents, former teachers, and college professors. This period of time is when a student is less likely to critique and challenge the teacher or pedagogy used and more likely to construct their vision of teachers and teaching based upon what they observe.

Effects of Previous Teachers

We tend to teach as we were taught (Fullan, 2007; Staton & Hunt, 1992). This statement clearly demonstrates the importance and impact that previous teachers hold on novice teacher pedagogy and style. Johnson (2010) indicates how before the recent educational reforms, the more "old school" style of student imitation and reproduction of subject matter was the norm. This more objectivist behaviorist approach to learning focuses on students achieving accuracy and correctness but lacked any emphasis on creativity and the construction of one's own knowledge (Driscoll, 2000; Siegler, 1998). Though Johnson (2010) focuses primarily on music education and the pedagogy used within it, she emphasizes the newer models of constructivist theory based upon more recent brain research. She states, "the constructivist theory was based on research

findings about learning theories and emphasized the student's participation in and contributions to exploring strategies for learning and interpreting" (p. 46). Since teaching styles and pedagogy of the pre-constructivist era dominate among older teachers, this tended to be the normal routine and practice that was passed from teacher to student. When the former student decided to enter into the education profession, she or he brings with them the pedagogy from previous experience with former teachers (Fullan, 2007; Staton & Hunt, 1992). In order to instill pedagogy based upon the newer constructivist theories, there will need to be targeted influence stemming from teacher education classes at the university level, a focus on development of reflective practice in the pre-service and in-service teacher, and the allowance for creativity and experimentation within the classroom—all without the risk of reprimand from administrators and parents who see these techniques as differing from the "norm" (Goodlad, 1991; Zeichner, 1980). Indeed, if the typical vision of a properly functioning classroom, one with students in rows, quietly sitting and listening to the teacher with little to no interaction can be broken, post-reform educators stand the greatest chance of creating a new school culture (Elmore, 2008; Fullan, 2007; Goodlad, 1991). This culture would be based upon new brain research and would implement best practice. The next generation of student would probably become accustomed to this methodology and therefore imitate it within their future classrooms.

Much literature discusses how the novice teacher in survival mode is placed within a culture defined by a sink or swim mentality. The isolation and suffocation that ensues begins to erode the novice's resiliency and potential to cope with classroom challenges (Cherubini 2009; Feiman-Nemser, 2003; Lortie, 1973; Zeichner, 1980). This

process and the subsequent deterioration of the new teacher's idealism has been described by Halford (1998) as the cannibalization of the novice teacher. It is at this point that the novice teacher begins to acquire a more custodial approach to teaching—relying upon maintaining order within the classroom (Allen, 2006; Feiman-Nemser, 2001). The focus for the teacher now becomes fitting into the school setting in which they reside while trying to maintain a professional identity. The result is the employment of techniques engrained from previous experiences with teachers throughout one's educational career. The theory and pedagogy learned throughout teacher training are surrendered, and along with it the chance for new teachers to develop unique, creative, and effective styles. In fact, it is these very formative early years of a teacher's career that typically can be some of the most creative times for developing a teacher's techniques and pedagogy (Kardos et al., 2001; Lortie, 1975). However, Gold (1996) shows that these years and the strategies developed within them become "imprinted" and strongly affect future development of the teacher within the profession. When teachers begin to rely on past experience, they are therefore typically relying on non-constructivist methodology and the pedagogy associated within it. McDonald and Elias (1983) indicate that these early experiences can confirm (or deny) a choice of occupation in life and lay a "base for future professional development" (Kardos et al., 2001). It therefore becomes essential that teachers are provided with access to a number of resources to help them not only cope with the struggles related to this time in their career, but also to grow as a result of it. Feiman-Nemser (2003) indicates that this time period can either be a constructive one, or simply a period of coping. In either case, what occurs is generally the result of the culture that the new teachers find themselves in upon entrance into the profession. The implication of

this is that the school leaders must make an effort along with more veteran peers to model

and continually implement research-based best practices in order to prevent the adoption

of custodial techniques. These techniques are typically developed and implemented by

struggling teachers. These very supervisory techniques tend to follow the teacher

throughout her or his career and will possibly be transferred to the following generation

of students and teachers—thus continuing the pattern of ineffective teaching and learning

(Kardos et al., 2001; Nasser-Abu Alhija & Fresko, 2010; Staton & Hunt, 1992).

<u>Socialization and Enculturation Through Teacher Education</u>

In order to understand the current teacher education system, one must first have

knowledge about what forces and influences brought us to the present situation. Zeichner

and Liston (1990) discuss the lack of historical consciousness associated with the more

current reform movements in teacher education. The result of this lack of hindsight are

reforms that, they argue, have no focus or clarity with regard to the theoretical and

political obligations in which they are based. This, in turn, makes success much more

unlikely or at least much more difficult to achieve. Throughout the 20th century,

Zeichner and Liston highlight that there have been four major reform movements in the

field of teacher education. These movements began with the Academic tradition, which

was a response to the desire for teachers to be subject matter specialists. The belief was

that all that a prospective teacher needed was a strong base in her or his subject matter

content followed by practical internship or apprenticeship-based experience. Abraham

Flexner, a noted contributor to medical education reform, emphasizes this thought

through the following quote:

Why should not an educated person, broadly and deeply versed in the educational philosophy and experience, help himself from that point on? Why should his attention be diverted during these pregnant years to the trivialities and applications with which common sense can deal when the time comes? (as cited from Zeichner & Liston, 1990, p. 3)

The second era of reform is seen to be the era of Social Efficiency. This movement focused on using science and research to isolate and develop teacher activities that were proven to be successful and affective. The development of school programs, plans, and procedures was accomplished in order to create a "system" for determining what and how students should be taught. Kliebard (1975) reviewed several studies performed during this time that narrow down proper techniques of teaching to a master list of *only* "1,001 teacher activities" (Zeichner & Liston, 1990, p.8). This desire to industrialize and make teaching more linear and efficient was a response to the behavioral psychology training by both industry and the military subsequent to World War II (McDonald, 1973). Where the social efficiency tradition was based in finding more rigid and scientific methodology to guide and legitimize teaching, the Developmentalist tradition was set under the assumption that a successful teacher would understand the psychology of the students within her or his various stages of learning (Kliebard, 1986). Elmore (2008) calls this the progressive period and inherent in this tradition is the concept of "student-centered" education in which students must be taught through stimulating environments. In contrast to the social efficiency tradition with its more rigid and formal methods of efficient teaching, the developmentalists or progressives envisioned the teacher as a craftsperson and researcher. Creating a

curriculum that matched the students' developmental stage, stimulated them to learn, and was grounded and influenced by close observation, were aspects at the heart of this third tradition (Zeichner & Liston, 1990).

The final movement in teacher education reform within the U.S. was that of the social reconstructionist tradition. Kliebard (1986) indicates that this tradition arose out of the Great Depression of the 1930s and was a response to the perceived social and economic injustice of the time. The idea was to lead the student and therefore the country into equality and fairness through the school system. In fact, some of the social reconstructionists challenged teachers to lead the nation toward a socialist and egalitarian society. As would be expected, the major argument facing this movement became how much teachers and teacher educators could indoctrinate their students (Zeichner & Liston, 1990). This tradition of education reform has been relevant throughout much of the 20th century and lasts into the 21st. Its implications include the civil rights movement, with the schools responsibilities to promote racial equality, the feminist movement attempting to ensure gender equality, and a push today for education to equalize the economic injustice arguably caused by our capitalist system. In all cases, however, this tradition of education reform involved a move toward, as Beyer describes, "the development of critically oriented, compassionate, and impassioned, reflective and socially engaged practitioners who can aid in the process of educational improvement and social change" (as cited in Zeichner & Liston, 1990, p. 21).

Goodlad (1999) provides insight into the ebb and flow of reform in education ranging from soft and tender to hard and tough. He reminds us of Arthur Schlesinger, Jr.'s 1986 posit about the 30-year cycle of American politics in his book *The Cycles of*

American History. These cycles provide the ideology in which reform decisions are made. As we move within the contemporary period's standards-based reform exemplified by such implementations as No Child Left Behind (NCLB), one can see an emphasis on testing and teacher accountability—the hard and tough, taking shape. Goodlad highlights the sense of déjà vu he experiences as the question is asked: are passing grades and mastery of tests what we want for our children and a ticket to a good career? Fullan (2007) argues that top-down approaches to educational reform fail to garner ownership and clarity among the participants and are therefore destined to fail. Zeichner and Liston (1990) talk about current reforms being built upon reflective practice and reflective practitioners. In order for ownership and clarity to be accomplished, the creation of this type of educator becomes necessary. It is the responsibility of the university to invent this type of educator through the professionalization of the teaching career. Through vigorous standards and fixed points of entry (similar to those required for law, medicine, and dentistry), the beginning of the process toward professionalization could possibly be accomplished (Goodlad, 1991). It is therefore essential to analyze the affects of the university setting in both teacher education and the student teaching apprenticeship on how teachers become enculturated and socialized into the school system. If we are to make lasting changes that are to effectively transform the teaching career, then it is here, upon initial entrance into the profession, that we must begin.

Teacher education courses. Goodlad (1991) postulates that a large percentage of today's educators do not have the knowledge or skills that are required to bring about meaningful change within our nation's schools. Additionally staff development is typically characterized as shallow, finite, and ultimately of no consequence. Though

Goodlad states that our teacher education programs are not producing the types of teachers needed to create meaningful change, it is here, at the university setting, that he argues the connection between theory and practice must begin. Davis (2007) shows us how little of what is studied and written by researchers finds its way to use within the classroom setting. He highlights Tyack and Cuban's (1998) discussion about the millions of dollars and decades of time spent in the pursuit of educational innovation all with the outcome of very little having changed in practice. The questions that arise become, what do we need from teachers within our schools and how do teacher education programs best provide this (Goodlad, 1991)? Research by Goodlad finds that awareness of the lack of prestige of the teaching career and teacher education, the lack of program coherence, a separation between theory and practice, and regulated conformity to be at the root of finding answers to the questions stated above. It could be argued that only through a focused effort on reforming the last three aspects, the first, prestige, can be addressed.

Fullan (2007) cites the Carnegie's (2001, 2006) Teachers for a New Era (TNE) initiative of 11 high profile institutions that were part of a grant and study to analyze teacher preparation programs. The TNE gave an overall grade of D to the programs in the area of "reinventing teacher preparation." They stated that there was little incentive for these institutions to address this issue. The commission also stated, "if these programs are failing, they are failing quietly" (p. 275). Fullan discusses six common features of successful teacher education programs. This list taken from the work of Darling-Hammond (2000) includes having: a clear vision of good teaching, well-defined standards of practice and performance, a curriculum grounded in knowledge of child and adolescent development (learning theory, cognition, motivation), clinical experience

woven into coursework, strong relationships between student, school, and university, and finally, extensive use of research applied to real-world problems of practice. Grossman (1989) performed a study of several teachers with no formal training in pedagogy and showed that there indeed was an impact of the lack of coursework on these teachers in that they were less effective than traditionally trained teachers within the classroom (as cited in Staton & Hunt, 1992). This points toward a correlation between good training and good teaching.

Difficulties That Second Career Teachers Face

It could be argued that novice teachers who enter the profession from a previous career have the ability to bring with them the real-world and authentic skills necessary to provide relevance within the classroom. For these educators, the relevance within their subject should be obvious. These teachers however still need to develop the methods to provide the material in a constructivist framework—one such method being that of authentic instruction. If these constructivist methods are not learned, teachers tend to rely on their previous experiences. These, as stated before, tend to be the objectivist approaches to teaching and learning learned from prior teachers.

Previous experiences become even more significant within the context of the fast pace of a school day. This thought is highlighted in the following statement by Dollage (1992):

That these neophyte teachers are not more reflective is probably the result of a combination of factors: the indeterminate, highly contextual and frenetically paced nature of classroom teaching; the limited value of theory in informing daily classroom practice; and insufficient time during and after a stressful school day

for the new teacher to pause, deliberate, and plan carefully for the next day or next week. (as cited in Cherubini, 2009)

The result of this inherently hectic pace, coupled with the lack of time to reflect and analyze practice, is a teacher who has been described previously as in survival mode. The teacher's ability to develop professionally now has been suspended until they can cope with the organizational realities placed upon them and find their place within it. They now tend to become more custodial and rely upon techniques that they have witnessed and experienced throughout their educational careers thus far (Allen, 2006; Cherubini, 2009).

Ongoing Factors of Socialization.

Professional Cultures Encountered by the Novice

Kardos et al. (2001) performed qualitative research analyzing the typical school cultures that most new teachers face when entering the profession. The type of culture that a new teacher faces as well as their experiences become strong determinants in their performance within the classroom and are a major factor in whether they choose to stay in the career at all (Cherubini, 2009; Elmore, 2008; Fullan, 2007; Kardos et al., 2001). Kardos et al. (2001) found that there were three categories of school culture typically encountered by novice teachers. These cultures are: veteran-oriented professional cultures, novice-oriented professional cultures, and integrated professional cultures. Depending on which of these cultures a novice teacher was among, the development of perceptions about teaching, teaching styles, and the use of pedagogy was affected. These first very formative years in a novice teacher's career typically shape how he or she will teach throughout the course of their career (Allen, 2006; Brindley & Parker, 2010).

Kardos et al. (2001) indicate that teachers new to the profession find their guidance and support not in the central office of the school, but from their fellow teachers. As the novice attempts to find her or his place within the system, their peers play a major role in how this person will be enculturated. In order to determine the typical cultures faced by novice teachers, Kardos et al. performed a qualitative study of 50 first and second-year teachers in a wide range of public schools and employing a wide range of teachers. Though this study was performed solely within the State of Massachusetts, it gives a glimpse into the typical cultures encountered with a school system. These cultures will invariably affect the development of these individuals as professionals, and could very well determine whether they stay in the career at all. It is assumed that the culture the new teacher finds himself or herself within is largely the result of both location and leadership. The aspect of location being concerned with the age of the population, how well established the teacher workforce is, and whether new graduates have opportunities to enter the workforce. The leadership of the school can influence how entrenched the thinking of the staff is, how willing they are to attempt new techniques and ideas within their classrooms, and the degree to which targeted and effective professional development is affected and effective upon them. The importance of strong and effective leadership becomes obvious as a major factor in the determination of the culture that a school embraces (Chenoweth, 2007; DiPaola & Hoy, 2008; Donaldson, 2006; Elmore, 2008; Fullan, 2007; Warwick, 1995).

Because the culture encountered by the new teacher is so closely related to how he or she will encounter and experience the very formative early years of teaching, it is then essential to analyze each of these scenarios in light of how a teacher will be

enculturated into the profession. Moir (2003) indicates that the single greatest factor associated with the success or failure of a novice teacher is the culture encountered within the school. In fact, in order for the novice teacher to thrive, a school must promote reflection and be responsive to the challenges that they will inevitably face. The school must be willing to provide support throughout the induction period by having both the understanding of the developmental stages this teacher will encounter, but also being able to provide targeted support within each stage (Cherubini, 2009; Kardos et al., 2001). The result of this process is a teacher that has the time and the ability to reflect upon his or her practice. This is likely to enable that teacher to not only cope and survive the formative years of the profession, but to also thrive and develop during this time. This will likely decrease the ineffective and shortsighted techniques that typically are adopted by novice teachers and that generally persist throughout their careers. In their place, the school stands the greatest chance of developing within the individual strong teaching and a connection between theory that *should* be learned in pre-service and the practice that is employed within the classroom (Davis, 2007).

Veteran-oriented culture. The veteran-oriented culture is described by Kardos et al. (2001) as being dominated by a feeling of isolation. The novice teacher is typically left to fend for her or himself within a culture that abides by an inherent "shut door" policy. Many have seen this type of school described by Little (1999) as "individual classrooms connected by a common parking lot" (p. 256). There are no formal or even informal structures to help support novices and when there are programs, they tend to be superficial, short-lived, and ultimately ineffective (Kardos et al., 2001; Feiman-Nemser, 2003; Foote, Brantlinger, Haydar, Smith, & Gonzalez, 2010). It is no surprise then that

these newer teachers have no link to the knowledge, pedagogy, and practice of the more

experienced teachers—many of which have no relevant research-based techniques to

offer due to their induction and enculturation into this very same system. These neophyte

teachers therefore have to discover what works on their own. The newer teacher must

therefore enter into a process of trial-and-error in order to find what is effective within

their classroom. Because the main focus of the novice teacher tends to be on maintaining

discipline and order within the classroom (all in an attempt to display a strong

professional identity and sense of effectiveness to peers and evaluators), he or she

typically finds that what indeed does work are strongly behaviorist approaches described

by Zeichner and Liston (1990). These methods, which typically provide quick results,

are mainly custodial in nature (Staton & Hunt, 1992) and lack what Ginsburg (2007)

describes as the "pedagogical practices that resonate with students' emotional, creative,

and intellectual development" (as cited in Cherubini, 2009, p. 93). Additionally, it is

these techniques that become a detriment in the long-run both within the individual

classroom later within that same year and throughout the students' school career as they

encounter teachers who are all employing similar strategies. These students then become

enculturated into this type of teaching and begin to regard more authentic and creative

styles as outside of the norm. They view pedagogy that differs from this perceived

standard as "not teaching," and as will be shown later, they then become a further

socializing agent within the school (Zeichner & Gore, 1990).

Kardos et al. (2001) imply that the novice teacher acting in survival mode feels

that they are left behind to figure the job and its strategies out for themselves. These very

same teachers may come to believe that this is just a part of the "learning of the ropes"

and an accepted part of entrance into the profession. The veteran teachers, having been

through the very same process earlier in their careers, are almost amused by the suffering

encountered by the neophyte. These veterans, who have been decreeing the difficulty of

the job for many years, have now been justified in their complaints—teaching is not

nearly as easy as it looks from the outside of the classroom. Due to the isolation, hectic

schedule and desire to survive in these initial years, these teachers may not even realize

that this seclusion is occurring, though they are very much aware of the difficulties that

they face and the lack of effectiveness that they experience. The lack of support provides

little structure for new teachers to engage in collaborative activities. These teachers then

begin to find it much easier and more comforting to either become autonomous by

concealing their own practice or confiding in the more novice teachers within the school

building (Cherubini, 2009; Kardos et al., 2001).

  Novice-oriented culture. A novice-oriented culture can be encountered within a

school in one of three ways. This can occur either through the opening of a new school

with its new hires, an older school that has a high turnover rate, or the development of

small groups of new teachers emplaced within a veteran-oriented school. These new

teachers collaborate with a sense of commitment and excitement for the job, but are

lacking in the practical wisdom and guidance of their more veteran peers.   This

arrangement leads to new teachers who again practice through trial-and-error methods

and often become distressed as they are tasked with fulfilling these schools' missions

without the benefit of the wisdom or guidance of veteran teachers with proven experience

(Kardos et al., 2001). Additionally, Johnson and Kardos (2005) claim that these teachers

work extended hours to prepare for their next day, while never seeming to get to a handle

upon their workload.   Kardos et al. (2001) show that this can lead these individuals to an early burnout   This same study demonstrated how a novice-oriented school culture in one school led to a 60% turnover.

Johnson and Kardos (2005) and Kardos et al. (2001) argue that the merging of the veteran-oriented culture with the novice-oriented culture provides the best opportunity to both develop the more inexperienced teachers as well as develop a common mission within the school. The collaboration between veteran and novice would create what Kardos et al. see as the most effective type of school culture—the integrated professional culture.

Integrated professional culture. The integrated professional culture can be described with words such as camaraderie, collaboration, openness, and communication. These same structures and concepts can be seen in the Professional Learning Community model as described by DuFour (2004) and DuFour, DuFour, and Eaker (2008) where members of a school are part of a team. These members include administrators, teachers, and in some cases parents and students. Elmore (2008) talks about the positive effects of the deromanticization of leadership within a school. Creating an atmosphere that is conducive to collaboration and the sharing of ideas becomes essential. All members of this team are responsible for student achievement—principal, teacher, parent and student. Kardos et al. (2001) speak of "prevailing attitudes and beliefs about collegiality and professional growth" that become embedded in the culture of the school. These common foci and goals developed within the school create an atmosphere where teachers no longer are isolated to their subject matter, but begin to "share the burden of educating the school's students" (p. 275).

Johnson and Kardos (2005) discuss the challenges that leaders face in the creation of an integrated professional culture. They describe the surprise that many administrators have when they see the typical experience gaps between their novice and veteran cohorts within a school. They do, however, provide several strategies that principals can use to bridge these divides in order to move toward a more integrated school culture. These include: a focus on hiring as an induction process, mentor teachers working with novices, scheduled meeting time between new and veteran teachers, provision of more than one mentor teacher, development of school-based induction programs, continuous curriculum development so as to incorporate new teachers in decision making, and the encouragement of leadership. The items mentioned above coincide with Elmore (2008) and Fullan's (2007) ideas of distributed leadership. Elmore (2008) argues that today's standards-based reform forces this distribution of leadership by making leadership instrumental to improvement. Within the integrated professional culture designed around a distributed leadership, administrators are tasked with enhancing the skills and knowledge of the people within the organization, creating a common culture, ensuring a productive relationship among participants, and holding individuals accountable. Elmore (2008) provides several ideas for developing teacher-leaders including: all teachers become consultants in the evaluation of colleagues' practice, they assist in the creation of new professional development practices, and they participate in the hiring and recruitment of new teachers. Fullan (2003) states that, "the teachers we need are immersed in discipline, informed professional inquiry and action that results in raising the bar and closing the gap by engaging all students in learning" (p. 11).

These actions by teachers can only be accomplished through strategic professional development that is continued and sustained through their careers. From the aspect of veteran vs. novice teachers, Elmore describes how those individuals with a greater amount of expertise and experience spend a portion of their work in the pursuit of improvement of practice across schools or classrooms. This improvement of practice within the school and among one's peers is essential as the impact of a teacher's individual colleagues plays a major role in their enculturation. The creation of a culture steeped in both collaboration and professional growth provides the greatest assurance that individuals will not be enculturated into the more rigid school cultures. These are the cultures that are "committed to scripted curriculum practices" and "prioritize standardized test scores as indicators of student achievement" while focusing "upon a sense of competition between teachers, schools, districts and the students themselves" (Cherubini, 2009, p. 93).

Colleagues

Feiman-Nemser (2003) describes the new teacher's process of enculturation into an "education bureaucracy" as revolving around several themes. These themes are reality shock, the lonely struggle to survive, and a loss of idealism. The outcome of these characteristics is a teacher that turns to her more veteran peers for advice and guidance on how to proceed within the career. This teacher, excited to be effective and implement what has been learned throughout training, is then guided by colleagues in how to "succeed" within that particular school. They are shown how to interact with students, what pedagogy to implement, what aspects of the curriculum to focus upon, who to go to for guidance, how they use their preparation time, and whether to become leaders within

the school. This period in a neophyte's career could be embraced as an opportunity for professional growth and development leading to a reflective, creative, and highly effective professional. Instead, what typically occurs, especially in the veteran-oriented cultures that dominate our school systems, is described by Eddy (1969) in the following (quoted in Feiman-Nemser (2003)):

> The solutions offered by the old-timers stress the importance of keeping pupils quietly occupied and forcing them to respond to the activities of the teacher, even if several days, weeks, or months are required to drill them into routines of acting out their subordinate role in the classroom. (Feiman-Nemser, 2003, p. 3)

Feiman-Nemser continues to explain that the indoctrination of the new teacher encompasses the beliefs, behaviors, practices, and values that are associated with working within the particular school. Zeichner and Gore (1990) indicate that this process will be typical to all teachers new to a particular school. This is due to the parallel conditions that most teachers within a school are faced with. The outcome of these analogous pathways into a school is an entire building or even district operating based upon the concept of discipline and conformity, rather than creativity, reflection, and the connection between theory and practice. The desire by teachers to minimize their differences in order to get along with each other leads to less engagement and productive talk about differing philosophy. Teachers are therefore more reluctant to challenge other teachers' pedagogy, practice, and philosophy or ask for evidence of its success (Feiman-Nemser, 2003). Additionally, these early career teachers, while attempting to find a reason for the ineffectiveness in helping move students toward actual achievement, begin to blame the pupils, the parents, and administration for their shortcomings. This transfer of blame

through an external locus of control allows teachers to maintain a professional identity while relinquishing any of the culpability that could be placed upon themselves (Cherubini, 2009; Feiman-Nemser, 2003; Kardos et al., 2001).

Within the novice-oriented culture, there is a lack of the knowledge base that veteran teachers can provide a school. Though the novice teachers are typically highly motivated and possess a passion for helping students, they are unable to quickly and efficiently modify their practice through the use of research-based strategies. As a result, these teachers need to use the trial-and-error method described by Feiman-Nemser (2003) and Kardos et al. (2001). This method of discovering what works is time consuming, cumbersome, and ultimately leads teachers toward burnout at precisely the time that they could be discovering effective techniques based upon sound research.

Students and the Ecology of the Classroom

There is abundant research presenting how students within a school or classroom can actually enculturate or socialize teachers (Hoy & Woolfolk, 1990; Staton & Hunt, 1992; Wattenburg, 2001; Zeichner, 1980). This movement by teachers toward more custodial pedagogy and techniques is the inevitable result of how students react to teachers presenting information, and their expectations for student learning and discipline. Much of this research is based upon observation and study of both the pre-service and practicing teacher and how she or he is affected by the classroom environment. Studies by Lortie (1975) as well as Zeichner and Gore (1990) bring to mind the inevitable metamorphosis that teachers undergo due to their interaction with students. Zeichner and Gore emphasize how teachers receive the confirmation of their successes and failures through interaction with students—not from peers or

administrators (Lortie, 1975; Zeichner, 1980). The almost constant isolation of teachers

from adults leads them to the modification of technique and practice solely as the result

of what they experience from their students. Allen (2006) discusses the "shattered

realities" experienced by pre-service teachers upon entering into their first classroom and

having to adjust to the realities of the job (p. 104). Allen illustrates how beginning from

the pre-service practical field experience and continuing throughout their career, teachers

begin to adjust their practice to align themselves with whatever is typically occurring

within their particular school. The novice teacher, in attempting to develop techniques

and integrate them into a successful lesson for the day, lacks the insight and self-

confidence of their more veteran peers. These neophytes therefore become more

susceptible to student criticism and attempt to modify pedagogy to minimize this

criticism through an almost Skinnerian operant conditioning process (Zeichner, 1980).

The result is teaching and learning that resembles what students have seen in the past—

typically the ineffective behaviorist and custodial techniques of most traditional teachers

(Staton & Hunt, 1992).

In addition to students shaping the teaching within a school, seminal work by

Doyle and Ponder (1975) as well as Zeichner (1980) discuss the ecological aspects of the

classroom as having an impact on socialization. Doyle and Ponder (1975) define this

ecological system of the classroom as "that network of interconnected processes and

events which impinges upon behavior in the teaching environment" (p. 183). Zeichner

(1980) postulates that the demands of the classroom environment significantly decrease

the amount of behaviors that "work" within in it. As a result of these limitations and the

typically similar scenarios and experiences of teachers within a particular school, the

practices of most teachers tend to converge toward similarity. Zeichner acknowledges

that in the past much of this congruence between teachers was thought to be the result of

peer influence (in the case of Zeichner's study, the influence of cooperating teacher on

student teacher). Zeichner discusses how Copeland (1980) found that a large part of this

influence might actually be due to the ecological forces at play within classroom.

Copeland's study compared the socialization impact of two models on student teachers.

These were the influences of cooperating teacher as primary socialization model and the

"ecological hypothesis" of classroom characteristics—those characteristics that are

beyond teacher control such as student aptitudes and past pupil experiences. This study

clearly showed that students who were used to a particular method of teaching were more

accepting of it in other contexts. This in turn had a significant affect on the future use of

these methods by the teacher. This shows how the students in large part dictate how

teaching is performed within a particular classroom setting.

Additional ecological aspects that affect the classroom environment and therefore

play a role in teacher socialization are listed by Allen (2006) as: levels of resources,

teacher-student ratios, and available time. The influence of these determines what

pedagogical techniques are applicable within a particular classroom. Teachers develop

strategies to cope with the abundance or lack of any of these items and are therefore

greatly influenced by them. This is in alignment with research by Zeichner and Gore

(1990), which shows how teachers develop strategies appropriate to particular settings.

Their actions are not the product of choice but are a response to the environment in which

they find themselves (Brouwer & Korthagen, 2005; Hargreaves, 2003).

Though much of the research shows how students can play a role in the socialization of teachers and their move toward more custodial techniques, there is also evidence presented by Graber (1998), Johnston and Wetherill (2002), and Zeichner and Tabachnick (1985) showing that new teachers can indeed be resilient to the pressure placed upon them by students. This research also indicates that more resilient graduates are entering our schools and are able to practice using more innovative and research-based pedagogical strategies. Through teacher training courses, newer teachers are becoming aware of the challenges they are to face and have developed strategies to defeat them. Staton and Hunt (1992) argue that:

> Teachers who enter the profession with a consistent, well-grounded understanding of the institutional context, themselves, and their teacher philosophy, have a greater likelihood of enacting the role of teacher successfully. (p. 131)

Ironically, the isolation that most teachers experience within their "egg crate" classrooms allows for a degree of freedom in which teachers are sheltered from the expectations of the school. Zeichner and Gore (1990) argue, however, that these teachers cannot be insulated completely from the decisions and conditions set by the administration or the national, state, and local government. These institutional characteristics become a large influence in how a teacher is able to employ pedagogy within their classroom.

Institutional Characteristics

Studies by Allen (2006) and Zeichner and Gore (1990) indicate that many of the socializing agents previously discussed may, in large part, be due to the similar situations that teachers and students find themselves. In short, they argue that the teachers within a

school use custodial techniques because the institutional characteristics of the school demand them. Zeichner (1980) is referring to previous research when he states that "people will tend to take on the characteristics required by the situations in which they participate" (p. 16). Pollard (1982) emphasizes how the institutional characteristics created by the wider structure of society, community, state, and federal government impact teachers through the constraints, opportunities, and dilemmas that these characteristics impart (as cited in Zeichner & Gore, 1990). The institutional characteristics that affect the efforts of teachers include: rules and mandates (both funded and unfunded) from the federal government, state-wide implementations such as standardized testing and levels of funding, the local and societal implications including the importance of education in the lives of the community and the support offered by its members, and the scheduling and managerial aspects associated with the administration of a school including bell schedules, class size, and creation of culture.   Staton and Hunt (1992) add the more "mundane" influences on institutional socialization of: teaching assignment, formal time structure, and the number of non-instructional role demands that a school or district requires. It is the institutional characteristics of a school that create the school's culture. Since it can be argued that the culture of the school is the single largest factor affecting the socialization of teachers, then it is clearly evident that the institutional characteristics play an extremely important role in this process (Cherubini, 2009; Kardos et al., 2001).

Even though many teachers become socialized into the school system as a result of its institutional characteristics, Staton and Hunt (1992) cite much research in which neophyte teachers overcame the negative influence caused by the system bureaucracy. In

almost every study cited by Staton and Hunt, there were teachers who developed

reflective and learner-centered styles of teaching in spite of a system stacked against

them (Zeichner & Tabachnick, 1985). Staton and Hunt (1992) discuss the importance of

developing reflective characteristics among teachers in creating a culture of continual

improvement. Because new teachers have little perspective with which to rely upon,

Blase (1986) found that they begin to incorporate the institutions values as their own.

This again shows the importance of leaders who can create norms of reflective practice

within her or his building in order to create this lasting culture of improvement.

Leadership as a Solution

        Donaldson (2006) spotlights how, in order to change the culture of schooling,

instructional leaders need to promote organizational cultures that support and promote

high-quality teaching and student achievement. It is clear that educational leadership

must focus on student success, but this same leadership must also focus on the adults in

the school setting so as to ensure that an integrated professional culture is created (Kardos

et al., 2001). This culture of communication and openness will make certain that the

enculturation process is a positive one for the novice teacher. Donaldson (2006) provides

a "three-stream model" essential to successful school leadership. These "streams" are

building relationships, having individuals work toward productive commitments, and

having an action-in-common.

        Donaldson's "three-stream model" places relationship building as the foremost

concern. The development of mutual openness, trust, and affirmation is an essential

element to building a culture within a school that is able to successfully develop its newer

teachers. This concept is consistent with both Kardos et al.'s (2001) integrated

professional culture as well as DuFour et al.'s (2008) professional learning community

model. The formation of an "us", not a "me and you" mentality, encourages participants

to work hard to be successful for not only themselves, but for the entire group. Through

the formation of this trust, everyone within the school becomes a partner with everyone

else—veteran and novice alike. As Quinn (2000) states, "because there [is] trust, people

[can] communicate their problems and get help. Because there [is] trust, there [is]

cooperation" (as cited in Donaldson, 2006, p. 51). This cooperation allows individuals

within the school to work toward productive and purposive commitments for all members

of its staff.

A leader must have an "[articulation] of a vision and a value system for the school

that staff and constituents recognize as good and as consistent with their own purposes"

(Donaldson, 2006, p. 88). This overarching value system can be seen as the "rule book"

by which individuals operate toward their commitments. The leader can then set up

conditions that strengthen the common purpose of the school. An example of these

conditions is seen in the statement: "the culture of schools [are] heavily oriented to small-

group affiliations where consensus and commitment can grow" (Donaldson, 2006, p. 93).

These small groupings, or professional learning communities (PLCs), create an

atmosphere of connectedness in which the faculty begins to take on the responsibilities of

a distributed leadership (DuFour, 2004; Dufour et al., 2008; Fullan, 2007). The

individual begins to feel more connected to the purposes and goals of the school. Their

discussions among staff and members of their PLC become more purposive toward

learner-centered outcomes, they alter their practice accordingly, and they begin to see the

school as a single unit, as opposed to multiple and individual classrooms (Donaldson,

2006; DuFour, 2004; Elmore, 2008; Fullan, 2007). This statement clarifies how both the individual and small-group (PLC) commitments within a school provide a stimulus toward action-in-common throughout the entire school. The implications of this on the neophyte teacher is that she or he is socialized into a system that is built upon, and reflective of, these traits and habits.

The task of becoming a new teacher within a school can be daunting. In order for these novice teachers to be successful, a school must have "a belief, reinforced by shared experience and action that together the group can accomplish goals that would be impossible to accomplish individually" and the novice should have a major role in realizing this belief (Donaldson, 2006, p. 105). Donaldson also states that, "nothing convinces busy educators that they should work together better than seeing that it makes each person more successful" (p. 106). With the guidance of a true educational leader, each individual within a school will be encouraged to collect data, examine the results, share this data, and problem solve for questions and challenges that arise within the school (Chappuis & Chappuis, 2002). It is as a result of this examination and effort that ownership begins to take place. A leader who fosters this ownership is then creating the "action-in-common" that is so crucial to creating an organizational culture that supports and promotes high-quality teaching and student achievement (Donaldson, 2006). This is the ultimate goal of an educational leader.

When most principals are asked "what do you see to be the central purpose of your school," the answer most always is "our job is to give the kids a good education" (Fullan, 2003). In order for this "good education" to occur, not only must teaching and learning be at a premium, but educators must truly understand the students that they are

associated with. In order for any of these notions to occur, leaders must provide access to further education for their teachers. John Goodlad, the President of the Institute for Educational Inquiry, highlights the current lack of teacher education in the following statement: "we found little attention being paid to the purposes of schooling in the education of educators" (as cited in Fullan, 2003, p.x). As the novice teacher enters the profession, she or he needs to be provided access to current and applicable research, be given the time and opportunity to process and reflect upon this research, and ultimately be permitted to implement and experiment with it. The result of this continued education would not only be new teachers embracing this culture, but a school focused on best practices as determined by the "science" of teaching (DuFour, 2004).

Induction Programs

Students learn better when they have teachers who are well trained, knowledgeable about subject matter, and have a wide range of pedagogy to choose from (Donaldson, 2006; Elmore, 2008; Fullan, 2007). When these teachers leave the profession after just a few years, they have provided students with several years of novice teaching (which is inherently less effective) and are abandoning the career at just the time when they could become more effective in their practice through experience (Feiman-Nemser, 2003). Johnson and Kardos (2005) indicate that, from within a particular district or school, there are several manners in which this problem can be approached. The first is to develop efficient and effective hiring practices that attract the best, brightest, and certainly most committed teachers. Next, a system must be put in place to keep these teachers within the field long enough to professionally develop. The building of effective techniques, knowledge, and "tools" (pedagogy) necessary in order to begin feeling

successful takes time. It is argued by Feiman-Nemser (2003) that the time necessary for

a teacher to become competent typically is on the order of 3 to 4 years after entrance into

the career—with several more years needed even to reach proficiency. This is just the

length of time in which many teachers burnout and leave the profession. The creation of

teacher induction programs that provide access to mentors while acknowledging the

difficulties faced by novice teachers, as well as providing a decreased workload for these

educators, is recommended. This would allow these teachers access to knowledge of

veteran teachers while providing the time necessary to become organized, researched,

and reflective practitioners. This induction process will enable these individuals to more

effectively face the daily challenges associated with learning how to teach (Fullan, 2007;

Kardos et al., 2001).

Effective Mentoring

Feiman-Nemser (2001) performed a qualitative study of one mentoring support

teacher. Within this study, she highlighted the principles and strategies that she described

as those of a thoughtful practitioner. Feiman-Nemser termed this "educative mentoring"

and described it as the most effective form of mentorship where the experiences

"promote rather than retard future growth and lead to richer subsequent experiences" (p.

17). Foote et al. (2010) articulate the needs that most if not all novice teachers are faced

with. These include, but are not limited to, help with: discipline, motivation, curriculum

planning, assessment, and communication. In order for the novice to confront these

challenges, teachers "long for practical advice to deal with the day-to-day issues that they

confront" (p. 399). Additionally, these beginning teachers find it challenging to

implement the strategies that they envisioned within their pre-service experience (Hoy &

Woolfolk, 1990; Kardos, 2004). Mentorship therefore becomes an aspect of teacher

induction that leads to gains in both pedagogical and custodial knowledge, as well as

providing the teacher a means to voice the concerns and issues with which they are

inevitably faced. This association between novice teacher and mentor can produce either

a positive or negative outcome depending on the philosophy of the mentor and the degree

to which he or she is willing to challenge the neophyte's vision of the successful

classroom. Foote et al. (2010) states that, though this relationship can provide important

support both psychologically as well as instructionally, the effectiveness of this

collaboration is determined by the type of relationship developed and the amount of time

devoted to the advancement of the trainee. A system set up by a particular district or

school can provide access to or even mandate a relationship between novice and mentor

teachers. If this process can be accomplished within Feiman-Nemser's (2001) educative

mentoring, the beginning teacher stands the greatest chance of benefitting from this

experience. If a non-educative mentorship is provided, the new teacher gains little to no

benefit; in fact this mentorship would most likely result in the encouragement of the

typical teacher-centered methods described by much of the research (Allen, 2006; Foote

et al., 2010; Hoy & Woolfolk, 1990; Lortie, 1975).

Waterman and Ye (2011) discuss the affects of mentoring on teacher retention.

Within their literature review on the subject they limit their analyses to novice teachers

with less than three years of experience. They cite the implications of the attrition of

these individuals as increased expense for districts with already tight budgets.

Additionally, and perhaps more importantly, they cite research showing how high

turnover rates within a school or district have an adverse affect on student academic

performance. What they found in this study of 14 novice-mentor relationships was that, due to the complex and non-linear relationships involved, it was not easy to determine the affects of mentoring on teacher retention. Waterman and Ye found that these non-linear relationships beg the more qualitative questions of "how" and "in what context" (p. 152)? They emphasize the need to study mentoring more as a process rather than a linear program. They do, however, acknowledge the limitations of their study in that it was not fully comprehensive.

It becomes obvious that the correlation between mentoring and teacher retention is difficult to quantitatively measure. Feinman-Nemser (2001) argues, however, that structured practice with a more veteran educator has the potential to promote reflective teaching practice and develop a model of continuous improvement within the individual. She also acknowledges that this novice-mentor relationship may propagate "standard teaching practices and reinforce norms of individualism and noninterference" depending on the mentor teacher with which the novice is associated (p. 28). However, the successful integration of second-career educators into the profession provides a possible mechanism for bringing authenticity into our schools. This is most likely to occur if these second-career educators use authentic pedagogy within their classrooms. Since the research shows that authenticity is capable of increasing student achievement, we must be diligent in staving off the enculturation of these teachers into objectivist teaching brought on by the numerous socializing agents within a school system. Educational leaders must encourage these educators to use the knowledge, skills, and talents they bring with them from other careers.

CHAPTER 3: METHODS

Research Design

Defining First and Second-Career Educators

For the purpose of this study, all comparisons were made between first-career and career-switching educators (Wilcox & Samaras, 2009). First-career teachers are defined as those individuals who had entered the teaching career (earned a teaching credential) while obtaining a bachelors degree in education through the standard route (direct entrance into the university) after earning their high school diploma. Second-career teachers are defined as those individuals who received formal training through a university prior to entrance into their profession. The Woodrow Wilson National Fellowship Foundation (2008) found that career changers are not a monolithic group. They come into classrooms at different stages of their careers—as delayed entrants, candidates aged 24 to 29, who did not enter teaching immediately after college but who did not pursue another career; midcareer teachers, who did pursue another career and are in their 30s, 40s, or even 50s; and second-career teachers, who pursued another career without attending a college or university and are considering teaching as a second or "encore" career. For this reason, I will limit second-career educators to those who pursued an alternative career after obtaining a bachelor's degree and were employed in a position directly related to this degree earned. Employment prior to receiving this degree (part-time jobs etc.) will not be considered as a *career* to which these individuals were

initially dedicated. For the purpose of this study, all individuals must have been employed in a full-time position for a minimum of one year prior to earning a teaching credential. A smaller group of "encore career" participants who did not obtain a college degree but obtained specialized instruction such as apprenticeship and then were directly employed prior to teaching was observed within the study ($n=17$). Though this was a small group of participants, it was included in the analyses to gain insight into whether the socialization effects of education continue into the post-secondary level. If those who attend university are exposed to this socialization force, there should be some differences between even second and encore-career educators. This would therefore limit the study to first career, mid-career entrants (second career), or encore-career entrants as defined above. The reason for this distinction is to eliminate individuals who entered teaching after earning a degree, or finished training in an alternative subject and then entered teaching simply because they could not obtain employment within their field. This will also ensure that these individuals gathered a substantial amount of information, skills, and practices from their previous careers that could be transferred to their students through their use of authentic instruction. Since "career" is defined in the *Oxford English Dictionary* as employment needing special or formal training for entrance and a person's *lifework,* these categorizations seem warranted. For the purpose of this study, these second-career individuals could have entered the teaching profession through traditional (earning a second bachelors or master's degree in addition to a teaching credential) or alternative route (entering a program to earn solely a teaching credential)—no distinction will be made between these methods. The study will attempt to analyze whether second-career teachers tend to develop an authentic theory of action as a direct result of their

experience within that particular career, not necessarily as the result of her or his educational or pedagogical training.

Participants

Participants for the study were sampled from a large suburban school district in the State of Idaho. For the purpose of the study, the survey was sent only to secondary educators at either the middle or high school level. The purpose behind this was that these "higher level" students and advanced subject matter presented by secondary educators would, in theory, more easily align itself with authentic-type instruction than that of elementary material—though research indicates the need to teach authentically at all grade levels. The survey was sent via K-12 Insight, an internet-based survey instrument, to 1,064 teacher email addresses throughout four (4) middle schools, three (3) high school-level alternative "academies," and five (5) high schools within the district. Of the 1,064 surveys sent, 158 of the addresses were incorrect or no longer in use, resulting in a "bounced" email. This meant that 906 surveys were received by possible participants throughout the district. No distinction was made concerning who received the email with the exception of this person being an educator (teacher, administrator, counselor) within one of the schools chosen. The K-12 Insight survey program used collected the number of potential participants who received, read, and responded to the survey invitation. This information was recorded. Of the 906 surveys sent, 365 (40.3%) were opened and read. Of the 365 opened emails, 216 were completed by participants, yielding a 59.2% response rate for those reading the email. The 216 responses also indicates a 23.8% overall response rate across all of the schools surveyed.

<u>Participant Demographics</u>

There was a significant difference found between the ages of the first-career educators with those who were classified as second and encore career, first career having been in the profession longer $t(211)=-2.52$, $p=.006$ (see table 1). There was also a significant finding between first and second-career educators regarding the number of years of teaching experience that they had on average. First-career teachers had the highest number of years of experience ($M=13.70$, $SD=8.74$) and second-career educators had the least experience ($M=10.18$, $SD=6.03$). In addition, encore-career teachers had a mean of 13.16 ($SD=8.07$) for years of experience.

Table 1 *Demographic Findings: Age and Years of Experience of First, Second, and Encore Career Teachers*

Career Group	Teaching Experience (years)	Age (years)
First Career ($n=127$)	13.72 (SD=8.74)	40.67 (SD=9.97)
Second Career ($n=72$)	10.18 (SD=6.03)	45.08 (SD=8.44)
Encore Career ($n=17$)	13.16 (SD=8.07)	44.67 (SD=9.75)

<u>Instrumentation</u>

In order to determine the degree of authenticity of individual teachers, a survey developed by Brendefur (1999) based upon Newmann and Wehlage's (1993) five standards of authentic instruction was used as a way to quantify participants' beliefs regarding authenticity. This survey instrument sought to assess an individual's *theory of action* as defined by Argyris (1991). A person's theory of action is defined as the set of rules that is used to guide behavior. Since this study seeks to assess differences in what

teachers will ultimately *do* within the classroom—the actions they take—their theory of action gives a sense of what they *feel* they should be doing, what they *think* they are doing, and what they *want* to do within their classrooms. This can then be compared to what they are *actually* doing—this comparison is a topic for further research. Because second-career entrants are so heterogeneous in nature, the survey was modified from Brendefur's (1999) purely mathematical emphasis to highlight a more general depiction of a person's theory of action toward authenticity. Brendefur combined aspects of the five standards of authentic instruction (construction of knowledge, disciplined inquiry, value beyond instruction, connection to student lives, and the inclusion of all students in the learning process) into three more broadly encompassing categories. These categories were the construction of knowledge, depth of knowledge, and value beyond instruction. The thought behind this categorization is that the construction of knowledge category assesses how a teacher views student learning ranging from an objectivist to constructivist theory of action. The depth of knowledge category incorporates aspects of disciplined inquiry—going more deeply into a subject, enabling conversations and discussions, as would a person who is an expert in that particular subject. The value beyond instruction category itself incorporates the connection to the students' lives and the importance of relevance within a classroom. When looked at holistically, the entirety of a teachers' *authenticity* is a measure, in part, of how they will approach teaching and learning. A highly authentic teacher will be more likely to use constructivist techniques designed to include everyone in the learning process to the greatest degree possible for each individual. This, in effect, accomplishes the inclusion in the learning process lens, which is described by Newmann and Wehlage (1993) as essential to authentic instruction.

An example of this is a highly authentic teacher who operating under the framework of constructivist teaching will place a large amount of the responsibility on the student for his or her own learning. Conversely, a less authentic teacher will operate under a mindset of teacher control setting up and passing information to students as she or he sees fit.

Questions were developed within each of the three categories of authenticity defined by Brendefur. Brendefur used three further divisions of a teacher's interaction with students—student learning, pedagogy, and the nature of mathematics to develop questions at a more detailed level within each authenticity category. The questions were modified from the mathematical focus to the more general conception of authenticity becoming student learning, pedagogy, and the nature of the subject in which they teach (nature of subject). The student learning sub-construct seeks to assess the way an educator views the learning process—from the way students solve problems, to the necessity of memorization in learning, to the level of real-world application needed to ensure true learning within a classroom. The pedagogy component of the survey instrument sought to determine the authenticity of methods used by these teachers within their classrooms. Finally, the nature of subject category assessed how the teacher saw his or her own subject within the framework of authenticity. A teachers conception of whether their subject lent itself to authentic instruction and indeed if their subject was authentic at all—or was it simply information to be passed to the student to be used "for the test." Questions within each sub-category were pooled to obtain a single set of questions for each construct of authenticity: value beyond instruction, depth of knowledge, and construction of knowledge. Brendefur's original survey was then

renamed the *Theory of Authentic Action Survey* to reflect its purpose—to determine the level of authenticity of an educator's Theory of Action.

Initial Pilot Test of Survey and Factor Analysis

In order to establish the reliability of the testing instrument, a preliminary pilot study was performed. For this study, the modified questions from Brendefur's original survey were entered into the Google Forms internet-based survey application. This initial survey test was sent to 18 participants in two locations—an alternative school in a suburb of Philadelphia, Pennsylvania, as well as a school district office in the State of Idaho. Results were compiled and Cronbach's Alpha values were determined through manipulation and analysis in both Microsoft Excel and the IBM SPSS statistical software package.

From these initial categories, a factor analysis was performed using data from the pilot study. In order to obtain the most reliable survey possible, each of the questions within a factor was analyzed for its effect on the Cronbach's alpha for that particular category. Based upon this factor analysis, questions that resulted in lower alpha values were deleted to obtain sufficient values for the category. Values greater than $\alpha=0.70$ were sought as a means of showing internal consistency of the survey tool (Garson, 2012). An attempt was made to find a balance between maintaining the validity of the survey through an ample number of questions and to decrease the overall number while maintaining acceptable alpha values. In order to accomplish this, a target of five questions for each category was sought. A survey that was too long could lead to a possible skewing of results as a consequence of participant fatigue. After questions were deleted based upon obtaining the highest alpha value for each category, the questions

were again scrutinized based upon alpha values. Those that still promoted lower alpha values were modified in their wording to increase clarity of the question. No retest of the survey was performed after the preliminary pilot study.

<u>Survey of Participants</u>

Once the pilot study was complete and the survey modified to ensure the greatest degree of validity and reliability, the final questions were entered into the K-12 Insight online survey program (see Appendix A). Several of the questions were reverse coded in order to maintain active engagement and prevent what could be described as question apathy. Finally, questions from particular categories and subcategories were scrambled and placed in random order throughout the survey.

The survey was then sent to teachers throughout a large suburban school district in the state of Idaho. Participants were told about the purpose of the study, the temporal commitment needed to participate, and how the study would be conducted. They were given an option to participate in the study (or opt out) and a copy of the Institutional Review Board (IRB) form was provided. Demographic questions were asked to determine factors such as gender, years of teaching experience, college or university attended, grade level taught, and subject of study, and information regarding possible previous careers. This information was collected in order to more deeply examine the causation behind differences in authentic teaching between the two larger groups (first and second-career teachers)—should one occur. Additionally, if no statistical difference was found between the more generalized groups (first-career vs. second-career), the data collected could then be used to compare levels of authenticity as a function of each of these demographic categories. The collection of this data also serves another purpose,

that of increasing validity. Fraenkel and Wallen (2003) indicate that an effort should be made to include demographic information in order to provide a context for the study. This will enhance external validity in ensuring that readers are given a more exacting picture of who participated in the study while not allowing over-generalizability of the data.

Data reliability, Recording, and Analysis

Data was collected and recorded via participants' completion of the *Theory of Authentic Action Survey*. A link to this survey was sent through an inter-district email sent by the K-12 Insight program. The data were compiled by the program as each participant completed the survey and, when completed, exported for use within the SPSS statistical analysis program. All data was converted into numerical values that could be used within the SPSS program. Rubric questions that were reverse coded were again recoded to correctly reflect appropriate values—with higher values indicating higher levels of authenticity.

Post-Survey Reliability Analysis

Cronbach's Alpha (α) values for the survey were first found in order to establish the final reliability of the survey instrument post hoc. This analysis determined if participants answered questions that concerned particular categories of authenticity with similar results. The higher the Cronbach's Alpha value, the greater the consistency of answers among participants, and therefore the greater the internal reliability the survey was shown to have.

Values found and used for the statistical analysis are shown in Table 2. The values found (all over 0.70) indicate that the survey held its reliability across all levels and constructs. These levels were an overall authenticity score (α=0.87) and in the three subcategories of the *Theory of Authentic Action Survey*—construction of knowledge (α=0.83), depth of knowledge (α=0.84), and value beyond instruction (α=0.88). These values indicate what can be classified as a high level of reliability and internal consistency across total authenticity as well as among each of the subcategories (Garson, 2012).

Table 2   *Cronbach's Alpha Coefficients for Theory of Authentic Action Survey*

Authenticity Category	Number of Items (*N*)	Cronbach's Alpha Coefficient (α)
Total Authenticity	43	0.865
Value Beyond Instruction	15	0.883
Depth of Knowledge	16	0.836
Construction of Knowledge	13	0.832

T-Test and ANOVA Analyses

Statistical analyses were performed between major groups (first and second-career teachers) using the IBM SPSS statistical program. To accomplish this, authenticity scores were tallied as an average that was calculated for both the overall authenticity (all questions) as well as each subcategory of authentic instruction based upon the response given on the five point Likert-scale survey. A first analysis involved the initial research question of whether second-career educators, in general, had a more

authentic-based theory of action than first-career teachers. Subsequent analyses were performed in order to seek subgroups within the main population that could influence levels of authenticity.

Levels of authenticity found through the use of the survey were compared between the two groups—first and second-career teachers. These tests were performed for each of the authenticity subcategories as well as for the overall authenticity score. This provided an understanding of the data that was gathered indicating if there was indeed an overall difference between the two groups that was not influenced by any other factors such as subject area or even how closely a person's career matched the subject area in which they taught ("fit"). To do this, a t-test was performed comparing those first and second-career teachers. Additionally, a third, albeit smaller group of participants (n=17) was found as the result of analysis of the demographic data. This group was seen to be composed of individuals who had worked in previous occupations for a substantial length of time, though these professions did not require a college degree. Some examples of this type of employment were military, construction, and retail employment as shown in Appendix C. This group was defined as "encore career" educators based upon the definition previously stated by Wilcox and Samaras (2009). In order to incorporate this group into the study, an ANOVA was run incorporating the third group to look for mean differences in total authenticity as well as in each of the subcategories.

Subject Area Analysis

In order to determine if subpopulations existed within the more homogenous grouping of teachers, ANOVA analyses were performed comparing subject matter

groupings. This was done to examine if the subject taught lent itself toward more or less authenticity or if it affected any of the subcategories of a person's *Theory of Authentic Acton.* Participants were grouped based upon subject matter taught in the following categories.

Table 3   *Subject Area Groupings Used for ANOVA Analysis*

Subject Area	*n*
English	63
Math	37
Science	31
Art	16
Business	14
Special Education	11
Social Studies/ History	20
Health/ Phys. Ed	14

Analyses were performed looking for mean differences between these grouping and, if found, the group(s) were removed from the larger population and the test was rerun. This was done until it was certain that there were no statistically different groupings based upon subject matter. This final homogenous group was then used in an analysis between career groupings.

"Fit" of Teaching Subject to Previous Career

In order to determine if there was an effect on authenticity due to how closely the subject a person taught matched their previous career, another set of analyses were run. To accomplish this, the educators' demographic information was analyzed and coded into three categories—perfect, somewhat, a no fit—as seen in Table 4. This was based upon the comparison between reported subject area taught and the career that the individual stated. This coupling between subject and career was performed by the researcher and

was not indicative of how related the participant thought their career and subject area were. This concept could be relevant to a future study. The three groups were compared by ANOVA analysis and if significant differences were found the group would be removed and the analysis rerun with the more homogenous grouping.

Table 4   *Second and Encore Career "Fit" Participant Numbers to Career Groupings*

Fit to Career	n
Perfect Fit	28
Somewhat Fit	15
No Fit	28

Correlation Analyses

Pearson correlation coefficients (*r*) were found to determine the influence of age and amount of experience (years taught) on an educator's authenticity. These correlations were performed for all groupings of the teachers' *Theory of Authentic Action*—total authenticity, value beyond instruction, depth of knowledge, and construction of knowledge. Additionally, if significant correlations were found, statistical analyses were used to find subgroups that may influence the total population (i.e., math subject area group). This exploration sought to assess if the socialization influences described by Lortie (1975) and Zeichener (1980) impact a teacher's authenticity over time; or, conversely, if teachers typically begin their educational career using unsuccessful objectivist pedagogy and move toward more authentic instructional methods through trial-and-error as described by Kardos et al. (2001). Positive correlations would entail that educators move toward authentic instruction as the result of experience within the classroom, not of knowledge gained from teacher training or a

previous career. Negative correlations would indicate that the socialization influences described throughout the literature do indeed have an impact and are decreasing the use of authentic techniques over time (Zeichner, 1980). These analyses also sought to determine if either of the career groupings was more prone to the influence of socialization when compared to the other. Correlations were run by total population as well as each of the career groupings and Pearson's coefficients were recorded.

Limitations

There are several areas within this research design that could be seen as limitations. These include limitations resulting from sampling bias due to non-randomly chosen participants, statistical limitations, and limitations of self-reporting survey results.

Sampling for this study was not performed in a probability sampling method. Instead, an email inviting participants to take the *Theory of Authentic Action Survey* was sent to a large population throughout several secondary schools within a single school district. The participants were not required to complete the survey, so the completely voluntary nature would possibly attract a particular population to contribute. The use of incentives as well as the presentation of data from around the district was incorporated in order to attract the most participants and possibly enlist those individuals who would otherwise not participate on a completely voluntary survey. Additionally, the self-reporting nature of the survey in which participants were asked demographic questions such as whether they were first or second-career educators, how long they had been teaching, what their previous career was, and the subject area that they taught possibly lent itself to inaccuracy. This inaccuracy could have resulted from the participants mistyping information or even not taking the survey seriously. The Likert scale surveys

themselves impart a degree of inaccuracy in that there is no way to determine if all participants who chose strongly agree, for example, have the same definition of how strongly they agree. The results of this study are therefore based upon the personal definitions of each individual and therefore can be described as *quasi-quantitative* in nature.

Statistical limitations of the study could possibly arise from subgroups within the analyses that were not found, represented, and accounted for. Examples of attempts to remove this limitation factor include the analyses of subject area taught and "fit" to career, however this was performed based upon specific demographic data that was collected. There could certainly be demographic variables that were not assessed by the survey and these variables could possibly play a role in influencing the degree of authenticity within the overall group. Moreover, though the statistical power was sufficient to find differences between groups, if they indeed existed, the sample size was limited by the number of individuals who completed the survey, the relative number of first and second-career educators within those schools and the fact that this study was performed within only one (albeit large) suburban school district in a predominately rural state. The generalizability of this study could be a limited by these realities. Further studies would have to be performed to assess if the information gleaned by this research is relevant in more diverse contexts. The compilation of similar information regarding first and second career educators across many differing locations would lead to a more precise definition of these individuals' *Theory of Authentic Action*.

Future studies could provide this information enabling a generalized view of the differences between first career teachers and those individuals who held careers prior to their entrance into the teaching profession.

CHAPTER 4: RESULTS

Statistical Analysis of Theory of Authentic Action Score between First, Second, and

Encore Career Educators

Total *Theory of Authentic Action* Score

To begin the analyses, a mean score was found for all participants in the study. This was performed to get a sense of overall authenticity among the population (M=3.54, SD=0.35). Next, a comparison was made between 1st, 2nd, and encore-career educators. This comparison was by ANOVA analysis of their *Total Theory of Authentic Action Scores* created from an average score of all questions on the survey. This total authenticity score was deemed an appropriate measure of the teachers' overall theory of authentic action with a Cronbach's Alpha value of 0.87 assessed across all questions. The results of this analysis showed no significant differences between the means of these three groups, F(2,213)=2.48, p=.086. First-career teachers showed the lowest mean authenticity score (M= 3.51; SD=0.34), second-career educators were next (M=3.56; SD=0.36), and the encore career showed the highest levels of authenticity (M=3.71; SD=0.24) overall (see table 5).

Table 5   *Comparison of Career Group Theory of Authentic Action Mean Scores*
by Authenticity Factor

Authenticity Factor	Math/ No Math Subgroups	Career Group		
		First Career	*Second Career*	*Encore Career*
Number of Participants in Group	w/ Math	N=127	N=72	N=17
	w/o Math	N=101	N=62	N=16
Total Authentic Theory of Action Score	w/ Math	3.51(.34)	3.56(.36)	3.71(.24)
	w/o Math	3.55(.34)	3.61(.35)	3.70(.25)
Value Beyond Instruction Score	w/ Math	3.07(.47)	3.18(.53)	3.23(.50)
	w/o Math	3.12(.46)	3.21(.53)	3.25(.51)
Depth of Knowledge Score	w/ Math	3.60(.41)	3.61(.41)	3.78(.37)
	w/o Math	3.65(.41)	3.64(.41)	3.77(.38)
Construction of Knowledge Score	w/ Math	3.81(.45)	3.85(.48)	3.97(.38)
	w/o Math	3.84(.45)	3.94(.44)	3.93(.37)

* all values were tested at the *$p < 0.05$ significance level*

Because no significant difference was found between the three career groups,

further ANOVA analyses were performed through disaggregation of the data. This was

performed in order to determine whether certain subpopulations would affect the overall

authenticity within any of the career groups (in essence, were certain subgroups more or

less authentic). The data disaggregation was initially carried out among two variables:

- Subject area taught

- Fit of current teaching position to previous career—do they teach the same subject as their previous career?

Analysis of Subject Area Taught

The composite survey data were first filtered by subject taught. This was performed in order to assess whether certain subject areas lent themselves to more or less authenticity. If differences exist in any particular subject area, this could impact the overall results and therefore this analysis was performed. Respondents were grouped based upon subject taught into eight major subject categories. These categories were English/language arts, mathematics, science, art, business, special education, social studies/history, and health/physical education. Respondents who either did not answer the question pertaining to subject matter ($n=6$) or reported their subject as school administrators ($n=2$) were left out of this particular analysis. An ANOVA analysis was run and results showed there were significant differences between subject matter groups at the $\alpha = .05$ level, $F(7,198)=2.44$, $p= 0.02$.

Table 6   *Descriptive Statistics for Total Theory of Authentic Action Between Subject Matter Groups*

Subject Area Groups	Sample size	Mean	Standard Deviation
English	63	3.61	0.38
Mathematics	37	3.34	0.32*
Science	31	3.60	0.35
Art	16	3.53	0.24
Business	14	3.56	0.37
Special Education	11	3.52	0.29
Social Studies/ History	20	3.57	0.29
Health/ Phys. Ed	14	3.54	0.29

* indicates significance at the $p < 0.05$ level

Table 7 *Summary of ANOVA: Subject Matter Taught by Total Theory of Authentic Action Score*

	SS	df	MS	F	p-level
Between Groups	1.92	7	0.28	2.43	0.02*
Within Groups	22.36	198	0.11		
Total	24.28	205			

*$p < .05$

Tukey HSD Post Hoc analyses revealed significant differences occurred between mathematics teachers (M=3.34, SD=0.32) and all other major subject categories, with the exception of special education teachers (M=3.52, SD=0.29). This lower authenticity score for mathematics teachers indicated they were part of a statistically different population. For this reason, ANOVA tests between first, second, and encore-career teachers were run again—this time with mathematics teachers excluded from the analysis to determine whether mean differences resulted among the now more homogeneous population.

Homogeneous Population ANOVA Analysis

An ANOVA was run between first, second, and encore-career teachers without mathematics teachers included within the analysis. In total, 37 mathematics teachers were removed, which eliminated the statistically significant subpopulation from the analysis. Results showed there remained no significant differences between the three career groupings when removing the mathematics subcategory, $F(2,176)=1.59$; $p=0.21$.

Findings again showed first-career educators had the lowest overall mean (M=3.55, SD=0.34), second career were next (M=3.61, SD=0.35), and encore-career educators had the highest overall authenticity score (M=3.70, SD=0.25). A summary of these findings is shown in Table 5.

Analysis of Fit to Previous Career

In order to assess whether the alignment between an individual's previous career and the subject matter affected their overall authenticity score, another ANOVA analysis was run. This analysis was run among second and encore-career teachers based upon those that had career to subject area fits that were "perfect," "somewhat fit," or "no fit." Results from this analysis showed that "fit to career" played no significant role and that there were no subgroups present within the second and encore-career individuals based upon this variable, $F(2,68)=0.23$, $p=0.79$.

Table 8 *Descriptive Statistics for Total Theory of Authentic Action Between "Fit" Categories to Previous Career*

Groups	Sample size	Mean	Standard Deviation
Perfect Fit	28	3.61	0.36
Somewhat Fit	15	3.63	0.44
No Fit	28	3.67	0.26

Table 9 *Summary of ANOVA- Subject Area Fit to Previous Career by Total Authentic Theory of Action Score- Mathematics Teachers Excluded*

Source of Variation	SS	df	MS	F	p-level
Between Groups	0.06	2	0.03	0.23	0.79
Within Groups	8.12	68	0.12		
Total	8.18	70			

*p < 0.05

Analyses Among Authenticity Factors

ANOVA analyses were performed within each of the subcategories of the *Authentic Theory of Action Survey*. These categories, as described previously, sought to assess teachers' conceptions of value beyond instruction, depth of knowledge, and construction of knowledge. Within each of these authenticity categories, Cronbach's

Alpha values were sufficiently high (greater than 0.70) to ensure reliability in measuring each of the individual constructs (see Table 2).

In each of the individual categories, analyses were performed first between first, second, and encore-career teachers. The sampling was first performed among the total population (no subgroups were removed). Once the total population was tested, subgroups were sought out by ANOVA analysis and, if found, removed to determine subpopulations' impact on authenticity scores within each category.

Value Beyond Instruction Analysis

First, the mean authenticity value for all participants was examined within the value beyond instruction category (M=3.84, SD=0.45). An ANOVA analysis between first (M=3.81, SD=0.44), second (M=3.85, SD=0.47), and encore (M=3.97, SD=0.38) career educators revealed no significant difference between the means within this sub-construct, $F(2,213)$=.99, p=0.37. A subsequent ANOVA analysis revealed statistical differences between means among subject matter taught, $F(8,201)$=2.06, p=0.041. Post Hoc analysis revealed differences only between mathematics (M=3.60, SD=0.443) and physical education/health teachers (M=4.07, SD=0.361). For this reason, only mathematics teachers were again removed the analysis and a second ANOVA was performed. Health/physical education teachers were not removed due to the small sample size of the subgroup (n=14). This analysis revealed no significant differences between the means of first, second, and encore-career educators when mathematics subgroup was excluded $F(2,176)$=1.03, p=0.359 (see Table 5).

Analysis of value beyond instruction data was performed to determine whether the "fit" of the second-career teachers' previous career to their subject matter revealed

significant differences among the means of these groups. ANOVA analysis revealed no significant differences between how closely an individual's career matched their teaching subject and their level of authenticity in the value beyond instruction category $F(2,80)=0.596$, $p=0.553$. This analysis was also performed with the mathematics teacher subgroup excluded. No significant difference was found in this analysis as well, $F(2,68)=0.795$, $p=0.456$.

Depth of Knowledge Analysis

Similar ANOVA tests as those performed on the value beyond instruction subset were performed within the depth of knowledge category of the *Theory of Authentic Action Survey* ($\alpha=.84$). These results demonstrate there was no significant difference between first ($M=3.60$, $SD=0.41$), second ($M=3.61$, $SD=0.41$), and encore ($M=3.77$, $SD=0.37$) career members with regard to their theories of action regarding depth of knowledge, $F(2,213)=1.437$, $p=0.240$. Additionally, an ANOVA analysis was performed attempting to isolate differences between subject matter taught. A significant difference was found between the means of these categories, $F(8,201)=3.189$, $p=0.002$. Post Hoc analysis again revealed that there were significant mean differences in the depth of knowledge category between mathematics instructors ($M=3.43$, $SD=0.358$) and English instructors ($M=3.72$, $SD=0.45$).

Performing an ANOVA analysis with the exclusion of the mathematics teacher subgroup again revealed no significant difference between means among the career categories (first, second, and encore), $F(2,176)=.666$, $p=.515$. ANOVA analyses were performed within the depth of knowledge subcategory among the "fit" of a teacher's career to their subject matter. This was performed as a whole (with mathematics teacher

subgroup included), $F(2,80)=0.446$, $p=0.642$, and with mathematics teachers excluded, $F(2,68)=0.860$, $p=0.428$, no significant difference in means were shown in either of these tests.

<u>Construction of Knowledge Analysis</u>

ANOVA analyses were performed within the construction of knowledge subcategory of the *Theory of Authentic Action Survey* ($\alpha=.83$). The first ANOVA analysis sought mean differences within the construction of knowledge context between all first ($M=3.07$, $SD=0.47$), second ($M=3.18$, $SD=0.53$), and encore-career ($M=3.23$, $SD=0.50$) educators. Results from this ANOVA test showed no mean differences between these groups, $F(2,213)=1.66$, $p=0.19$.

Again further analysis was used to verify the presence of subgroups within the total population that may impact the authenticity within the construction of knowledge category. To verify the presence of these subgroups, a second ANOVA analysis was performed based upon the subject area taught. A significant difference between means was found for this analysis, $F(8,201)=2.92$, $p=.004$.

The Tukey HSD Post Hoc analysis indicated there were statistically significant mean differences in the construction of knowledge sub-context between mathematics teachers ($M=2.91$, $SD=0.47$) and English teachers ($M=3.24$, $SD=0.47$), as well as mean differences between mathematics teachers and school administrators ($M=3.75$, $SD=0.91$). There was also a significant difference of means found between school administrators and physical education/health teachers ($M=2.86$, $SD=0.43$). Because of the small sample size of physical education/health teachers ($n=14$) and school administrators ($n=4$), as well information gleaned concerning these groups from previous analyses, they were not

excluded from the subsequent ANOVA looking at the more homogenous grouping—again, only the mathematics teachers were excluded. In order to verify that mathematics instructors had a significantly different mean than the rest of the population, an ANOVA was run between mathematics educators and all other educators with respect to average authenticity score under the construction of knowledge construct. Results showed there were significant differences between mathematics teachers and the entirety of the group surveyed, $F(1,214)=8.44$, $p=.004$.

With results showing a different population of mathematics teachers (which were removed) within the construction of knowledge framework, an ANOVA was performed to look at possible differences between first, second, and encore-educators within the more homogenous grouping. Results of this ANOVA showed there were indeed no significant differences between these groupings with respect to construction of knowledge, $F(2,176)=0.78$, $p=.46$.

Finally, statistical analyses were performed to find whether the "fit" to a teacher's previous career impacted their level of authenticity within the construction of knowledge sub-context. In order to accomplish this, ANOVA analyses were performed between categories related to career "fit." These were performed both with mathematics teacher subgroup included and without. Results indicated no significant mean differences between the "fit" of previous career with the subject taught. This was found with both the mathematics subgroup included, $F(2,80)=0.45$, $p=.956$, as well as with the mathematics group excluded, $F(2,68)=0.08$, $p=.93$.

Individual Question Analysis

An analysis at the individual question level was performed in order to gauge minute differences that could be used to improve the survey instrument as well as develop areas for future study. Where significant differences exist within the individual questions, further items could be developed to seek a more robust and statistically powerful survey tool. Since much previous research points to differences between first and second-career educators, this analysis was also used as a way to possibly confirm that no differences were found between groups. What this analysis did do, however, was highlight some areas for more in-depth study. It must be emphasized that this level of analysis is unreliable for drawing conclusions regarding authenticity between groups. There were several significant differences found between groups at the individual item level and these differences were highlighted. A summary is provided below in Table 10.

Within the value beyond instruction category there was significant differences between means concerning the questions "*my classroom should be used to model real-world events*" with second-career educators having the highest authenticity, encore career next, and first career having the lowest levels of authenticity. Differences between groups arose with encore-career teachers having the highest authenticity and first career having the lowest within the question "*the majority of tasks given to students in my class should [not] be isolated from problems that have uncertain components.*"

Under the depth of knowledge category, three individual questions showed significant differences between groups. In each of the cases, it was the first-career teachers with the lowest authenticity mean, second-career educators next, and encore-career educators that had the highest levels of authenticity. This pattern occurred in

results to the questions: "*teaching topics separately from each other inhibits students from becoming good problem solvers,*" "*students [do not] learn best by repetition,*" and "*my subject is [not] highly structured and hierarchal.*"

Finally, in the construction of knowledge context, significant differences were found for the reverse coded questions: "*if students can simply follow directions, they will be highly successful in my class*" and "*students should learn a collection of facts, rules, and skills before applying them to solve.*" In these cases first-career educators were always the least authentic.

Table 10   *Comparison Between First, Second, and Encore Career Teachers with Statistically Significant Differences on Individual Questions in Theory of Authentic Action Survey*

Theory of Authentic Action Category	First Career	Second Career	Encore Career	*p*-value
Value Beyond Instruction 1. My classroom should be used to model real-world events	3.75(0.86)	4.01(0.77)	3.94(0.75)	0.03
2. % The majority of the tasks given to students in my class should be isolated from problems that have uncertain components %	3.67(0.77)	3.82(0.86)	4.24(0.83)	<0.01
Depth of Knowledge 3. Teaching topics separately from each other inhibits students from becoming good problem solvers.	3.23(1.03)	3.47(1.00)	3.82(0.53)	0.03
4. % Students learn best by repetition%	2.58(0.98)	2.62(1.00)	3.12(1.05)	0.03
5. % My subject is highly structured and hierarchal %	3.04(1.05)	3.22(1.06)	3.71(1.21)	0.01

Construction of Knowledge

6. % If students can simply
follow directions, they will be   2.35(0.89)   2.66(1.04)   2.24(0.97)   0.02
highly successful in my class %

7. % Students should learn a
collection of facts, rules, and   2.76(0.81)   3.04(0.99)   2.94(1.03)   0.04
skills before applying them to
solve problems %

* All tests were performed at the p<0.05 level
% indicates a reverse coded item transformed to reflect positive authenticity

<u>Age and Years of Experience Correlations</u>

Correlations were run between both the teacher age and years of teaching

experience against the *total authenticity score* averages. This was also performed within

each of the constructs that compose the total score (value beyond instruction, depth of

knowledge, and construction of knowledge). Correlations between both the age of the

educator and how many years they have taught and the *total* authenticity score were

found to be insignificant.

Table 11   *Pearson Correlation Coefficients for Factors of Authenticity*

Authenticity Factor	*Age of Teacher*	*Years of Teaching*
Total Authenticity Score (*n*=216)	-0.02	-0.10
First Career (n=127)	*0.01*	*-0.05*
Second Career (n=72)	*-0.13*	*-0.20*
Encore Career (n=17)	*-0.10*	*-0.07*
Value Beyond Instruction Score	-0.09	-0.04
First Career	*0.19*	*0.09*
Second Career	*-0.12*	*-0.26**
Encore Career	*0.05*	*-0.21*
Depth of Knowledge Score	-0.11	-0.07
First Career	*-0.03*	*-0.09*
Second Career	*-0.10*	*0.01*
Encore Career	*0.26*	*0.36*

Construction of Knowledge Score	-0.12	-0.19*
First Career	*-0.14*	*-0.11*
Second Career	*-0.09*	*-0.20*
Encore Career	*-0.46*	*-0.37*

* Indicates significance at the p < 0.05

Correlations within Subgroups of Theory of Authentic Action Scale

Pearson correlation coefficients between both the age of the teacher and the years of teaching experience with the subgroups of the authenticity scale are shown in Table 11. There were no significant correlations between either teacher age or years of teaching experience when evaluated within the depth of knowledge category. There were significant correlations within both the value beyond instruction and the construction of knowledge subcategory. Within the value beyond instruction category, a significant negative correlation was found for only second-career teachers dependent on how long they had taught (years of experience), (r=-0.26, p=0.03). Within the construction of knowledge subcategory, there was a small but statistically significant negative correlation between the years of teaching experience and degree of authenticity when assessed across the entire group of participants, (r=-.185, p=.006).

It is interesting to note that, though most of the correlations regarding age and/or years of teaching experience compared to authenticity are non-significant, most of these correlations are negative in nature.

CHAPTER 5: DISCUSSION

This study sought to find differences in the levels of *authenticity* between individuals who held previous careers when compared to teachers who entered directly into the teaching profession after earning a bachelor's degree in college. Wilcox and Samaras (2009) called these individuals "career switchers" and spoke of the important roles that they could play in promoting real-world and authentic-type skills within our schools. This research looked at educators' *Theory of Authentic Action* as an attempt to quantify how they perceive teaching and learning within the context of authenticity. Dewey (1940) spoke to the need for schools to represent real-life, and Driscoll (2000) shows research linking active and interested students to an increase in their learning. Additionally, with the need to hire 200,000 teachers within the United States alone, Resta, Huling, and Rainwater (2001) indicate that these individuals could play an important role in effectively filling this "gap." Certainly a much more effective method than our current process of finding unqualified and under qualified candidates to fill vacant positions, looking to career-switching educators as a way to incorporate real-world and relevant skills into our classrooms is of the utmost importance.

Discussion of Demographics

The purpose of this research is to begin an analysis of whether second-career or encore-career educators provide a mechanism for brining authenticity, and therefore vitality into our schools. Initial analysis of the participants revealed that second and

encore career tended to be significantly older than their first-career counterparts within the district studied. First career had an average age of 40.7 years, second career 45.1, and encore career had 44.7 years. This is in slight disagreement with research completed by Tigchelaar et al. (2010) who implied there are no defined age categories for teachers who enter the profession after working in a different career. Second and encore-career teachers within the district studied ranged in age 28 to 64 years, whereas Tigchelaar et al.'s review of the literature showed a range from 22 to 57 years of age. This could certainly be accounted for by the very definition of a second career. Within this study, a person needed to have attended college and worked a minimum of one year before entrance into teaching. This would certainly create entrants who were older than those who would enter directly out of college. Additionally, the finding of an "encore" career group would entail individuals who were older than most first-career teachers. The importance of this finding is to determine whether age and experience play a role in the degree of authenticity that is displayed within a classroom.

The teaching experience (years spent within a classroom) within the study group matched what would be expected when considering the findings regarding age of participants. The significant difference between the experience of the first-career educators with those who were classified as second and encore career shows that first-career teachers (M=13.7 years) have on average been in the profession longer than second (M=10.18 years) and encore-career individuals (M=13.2 years). If, as much of the research suggests, socialization factors affect teachers throughout the entirety of their careers, the longer time spent within the school system by first-career teachers could negatively impact their authenticity to a greater degree than those of second and encore-

career teachers (Lortie, 1975; Staton & Hunt, 1992; Zeichner & Tabachnick, 1985). This, however, was not found to be the case. The correlations between both the years of teaching experience and the age of the teachers showed insignificant results when compared with *total authenticity* (r=-0.09 and r=-0.015, respectively). Results showing significant correlations between years of teaching and authenticity were found, however. These correlations were exposed when the individual authenticity components were analyzed (construction of knowledge) and when subgroups within the total population were isolated (second-career educators).

Differences Between Entrances into Education

There were no statistically significant different means found between first, second, and encore-career educators with regard to *total authenticity*. This lack of significant findings can be expanded to each of the subcategories within the total authenticity framework. This included analyses of teachers' authentic theory of action within the value beyond instruction, depth of knowledge, and construction of knowledge. This means that, from the broader perspective of authenticity, all teachers see the necessity and importance of these techniques and methods of teaching.

Perception of the Value Beyond Instruction

The value beyond instruction analysis sought differences in how important teachers view the connection to real-world events and usefulness of their subject. The results of this analysis showed that first, second, and encore-career educators view relevance as a highly important factor in their teaching. Mean authenticity values in the value beyond instruction subcategory of 3.84 (*SD*=0.45) for the entire group and the lack

of statistically different means both verify this claim. There was a significant difference in how mathematics teachers perceived the value beyond instruction and their subject's connectedness to the real world with these teachers seeing this as less important. This population, when removed from the analysis, showed little impact on the overall theory of authentic action with regard to real-world connections (value beyond instruction). This indicates that most of the educators in this study view the importance of real-world connections between their subject and the world outside of school. Further analysis also showed that it did not matter whether a person teaches something directly related to what they did within their profession the value of teaching real-world skills was still deemed important.

Though all of the subgroups of educators (first, second, and encore) view relevance as important to their teaching, differences on the individual question level were found indicating some areas for future and more in-depth analysis. This is evidenced through significant differences in answers to the question "*the classroom should be used to model real-world events*" where first-career teachers had a mean of 3.75 (*SD*=0.86) and second career a mean of 4.01 (*SD*=0.77). When asked the question "*the majority of the tasks given to students in my class should be isolated from problems that have uncertain components,*" significant differences between first and second-career educators arise. It seems from the significant findings to these statements that there are some differences between educators who were previously employed and first-career individuals. Though the overall value beyond instruction category showed no differences between these groups, the "noise" shown by these questions certainly provides room for further study in this category. Of interest, however, is the fact that, in the case of every

significant result within the value beyond instruction framework at the individual question level, it was the career-switching teachers who held higher degrees of authenticity. This could indicate that there are nuances yet to be discovered between these teacher groups within this construct. The significant negative correlation that was found only for second-career educators within the value beyond instruction framework could indicate a tendency for these individuals to be more prone to socialization influences within the classroom. This could be the result of second-career teachers coming into the profession with unrealistic expectations of student performance and their abilities to impart real-world knowledge (Feiman-Nemser, 2003; Kardos et al., 2001). This is in opposition to the majority of literature on second-career teachers that indicates their resilience to the socializing forces within a school. Further study on the subject is needed to determine whether this finding has generalizability or if it is isolated to this circumstance.

Depth of Knowledge Analysis

Within the depth of knowledge category of the teachers' *Authentic Theory of Action,* there were no statistically significant differences between first, second, and encore-career educators overall. Again, the subgroup of mathematics teachers had statistically significant differences pointing to this group having a theory of action that is less authentic than the more homogenous group. When isolated from the analyses, however, the mathematics teachers did not play a significant role in altering how second and encore-career teachers perceived authenticity in overall depth of knowledge. It therefore may be concluded that, with the exception of mathematics, subject matter does

not have an impact overall on how deeply teachers think subjects should be taught. Some differences were found, however, when analyzed at the individual question level.

Where significant differences were found, it was the first-career teachers that had the lowest authenticity in the depth of knowledge category in all cases. It was the encore-career educators that continually had the highest depth of knowledge authenticity for questions with significantly different means. On the less valid individual question level, encore-career teachers reported a greater need for subjects to be taught through more engaging methods as evidenced by answers to the question "*students [do not] learn best by repetition*" (first career mean=2.58, encore career mean= 3.12). Individuals who worked in long-term jobs prior to teaching differed in their answers to concepts involving problem-solving skills evident through the questions: *Teaching topics separately from each other inhibits students from becoming good problem solvers* (*first career mean=* 3.25, *second career mean=* 3.47, *encore career mean=*3.82) and *My subject is NOT hierarchal*—or can be taught in different ways (first career mean=3.02, second career mean= 3.22, encore career mean=3.71). Further and more in-depth analysis is needed to more clearly quantify the differences on these questions. Newmann and Wehlage (1993) speak of the necessity in developing problem-solving skills and integrating subjects to build higher order thinking. Newmann and Wehlage also highlight the element of uncertainty that is created within this process. Finding possible differences between career groups on these types of questions would correlate well with prior research concerning second-career educators and problem-solving skills (Haggard et al., 2006). This, however, was found on the less reliable individual question level, indicating a possible need for further clarifying research in this area.

Construction of Knowledge Analysis

The construction of knowledge framework of authenticity entails how a teacher perceives the most effective methods of teaching and consequentially, student learning. How they perceive this construct will therefore be highly influential on the teacher's *Theory of Authentic Action* and their overall perception of teaching. Findings from this study show there were no significant differences in how first, second, and encore teachers perceived the construction of knowledge context of authenticity. Again, the mathematics teacher population had lower authenticity in the sub-construct than the more homogenous group. When first, second, and encore-career educators were compared within the homogenous group, mathematics teachers again did not affect the overall significance. The "fit" to the teachers' previous career also played no significant role in how authentically they perceived the construction of student knowledge.

Statistically significant differences on individual items within the survey showed the highest levels of authenticity for second-career individuals under this context. Second career educators had higher authenticity scores on items such as *"students [need to do more than] simply follow directions in order to be highly successful in my class"* and *"students can solve problems before knowing a collection of facts, rules, and skills"* (*M*=2.66 and *M*=3.04, respectively) when compared to encore (*M*=2.24 and 2.94, respectively) and first-career teachers (*M*=2.35 and *M*= 2.76, respectively). Again further and more in-depth study is needed to isolate the causes for these differences, if they do in fact exist. Since the construction of knowledge sub-context is a measure of how a teacher approaches the learning process (pedagogy and methods), this is a critical indicator of authenticity. These findings at the individual show the necessity of developing further

questions within this survey tool. These questions would increase the statistical power of the instrument enabling it to possibly detect these slight differences between groups. Of interest, however, is the fact that, in the case of every significant result at the individual question level, it was the career-switching teachers who held higher degrees of authenticity. As previously mentioned this may dictate a refinement of the survey tool in order to develop a more precise measurement within these statistically significant areas.

There was a statistically significant, albeit small correlation between the number of years of experience that a teacher possessed within the school system and the degree of authenticity within the construction of knowledge context (r=-0.19, p=0.006). What this possibly suggests is that the many socialization forces described throughout the literature do indeed play a role in decreasing a teacher's authenticity in how they perceive teaching and learning (Doyle and Ponder, 1975; Feiman-Nemser, 2003; Lortie, 1975; Staton & Hunt, 1992; Wattenburg, 2001; Zeichner and Gore, 1990). This implies that though teachers tend to see the importance of relevance of subject matter as well as how they must go deeply into a subject for a student to understand it, over the course of time the combined influences of the ecology of the school and classroom decrease the level of constructivist methodology used (Hoy & Woolfolk, 1990; Staton & Hunt, 1992; Wattenburg, 2001; Zeichner, 1980). In other words, teachers tend to be enculturated into schooling over time. As described in the literature, teachers who persevere through the first hectic years of their career typically develop a set of skills necessary to survive within the system (Cherubini, 2009; Fullan, 2007; Kardos et al., 2001). Zeichner and Gore (1990) speak to this "metamorphosis" as a result of the teachers' interaction with students. It is Doyle and Ponder's (1975) seminal work describing the "interconnected

processes" that "impinge upon behavior in the teaching environment" that seems more likely (p. 183). Findings from this study suggest that teachers may view the use of constructivist techniques as more time consuming with certainly less of a guarantee in results. Additionally, the high stakes testing environment currently pervading our schools lends itself to more encultured teachers (more years spent within the system) using objectivist techniques to pass information to their students to be ready for the "test." Zeichner (1980) indicates that teachers take on the characteristics required to be successful in the situation in which they find themselves. These findings not only verify this concept, but add to it the influence of time—the longer one is in the environment, the more socialized they become—regardless of whether they held a previous career. Work by Pollard (1982) shows that this occurrence is not new to schooling while referencing that this environment is created by the wider society, community, state, and federal government. In fact, these results show evidence contrary to what much of the previous literature on second-career educators has shown—that these individuals see more value in authenticity and are less prone to socialization influences (Feiman-Nemser, 2003; Lortie, 1975; Staton & Hunt, 1992; Zeichner and Gore, 1990). This research brings up the possibility that these groups (first and career-switching teachers) both see authenticity as important and that, in fact, second-career teachers may be *more* prone to socialization influences over time. Though many of the correlations between years of experience and authenticity are non-significant, the negative nature of nearly all of them is at least worth noting.

Implications

This study is the beginning of longer range research seeking to determine the most effective methods for bringing *authenticity* into our schools and classrooms. This authenticity as defined by Newmann and Wehlage (1995) is centered on students constructing their own knowledge through hands-on, relevant, and real-world material. This real-world material is taught deeply and not in the "a mile wide, an inch deep" mentality to simply *expose* students to information. Previous research by Avery (1999) and Choo (2007) point to the effectiveness of these authentic methods. If bringing real-world and relevant skills into the classroom is shown to increase student motivation and subsequent achievement, then finding and hiring a population of teachers with these skills seems imperative. This study sought to determine whether second-career educators— those that were formally trained at the university level and worked within a previous career (second career) and those who went straight into a career after high school—such as the military, retail, or carpentry (encore career)—held higher degrees of authenticity in their *Theory of Action* than that of teachers who entered directly into the profession. This *Theory of Authentic Action* is a measure of how important teachers feel authenticity is to the success of students within their classrooms, how they feel students learn best, and how they feel about their particular subject's connection with the real world. It is through this framework that analyses were performed to seek differences between these groups of educators. The implication of this research is important for educational leaders at the building, district, university, and state/federal department levels.

Implications for Schools and Districts

At the building level, it is the principal who sets the "tone" of the school. This research has demonstrated there may not be large differences in overall beliefs in authenticity when compared between first and career-switching educators. What this means for a school and district administrator is that it may in fact be the tone and expectations of the school leader that plays a larger role in how authentic her or his school actually is. Though research by both Haggard et al. (2006) and Salyer (2003) shows that these career-switching educators have the abilities to increase authenticity within the school, it is not directly translated from the teacher to the classroom—training and the freedom to experiment with new techniques plays a large role as well (Tigchelaar, 2010). On one hand, if a school leader can establish expectations of authenticity in her or his school, this culture could pervade the entire building through the very same socialization processes described by both Lortie (1975) and Zeichner (1980). The same ecology of the classroom that moves teachers toward inauthentic, objectivist methods could in turn create the expectation of authenticity within a school. This has proven to be difficult, but certainly not impossible. Strong district and building leaders who are committed to authentic instruction, willing to experiment with new techniques for the sake of students, and have the knowledge to do so could create an environment where real-world skills are the norm (Donaldson, 2006; Elmore, 2008). Additionally, if an entire school moves toward authenticity, then the students themselves become enculturated into this type of teaching methodology. They will come to expect it and therefore be more likely to accept it—thereby relinquishing one of the major socialization factors—the students themselves (Allen, 2006; Zeichner, 1980). This in turn would, as

some of these students decide to enter into the education profession, break the cycle of objectivist teaching ideals in favor of more authentic methods. If, as this research suggests, there are only minor differences in the theory of action regarding authenticity between first and second career educators, it is not a matter of simply hiring those who have had a second-career, but finding ways of implementing and spreading the knowledge that they have within the school. Because first-career teachers also realize the benefits of real-world topics, covered deeply through hands-on methods (as shown in this research), imploring second-career educators to spread the knowledge that they certainly have gained through their previous career seems to be a possible method to increase authenticity within a school (Haggard et al., 2006; Tigchelaar et al., 2010; Wilcox & Samaras, 2009). Hiring leaders who understand and expect this may also be a method to increase a culture of authenticity at the district and school level. This research shows, however, that special attention may be required to foster this authenticity because second career individuals may be more prone to socialization forces. As such, if a leader wants to spread the real-world skills that second-career educators certainly bring with them into a school, she or he will need to find ways to ensure that these educators feel valued for having and sharing this knowledge.

<u>Teacher Preparation Programs</u>

Implications of this research at the teacher preparation level are many. The results of this study imply that however different the degrees of authenticity between first or career-switching educators when they enter a teacher education program, the two groups leave the program with about an equal level of authenticity. This could be interpreted from two perspectives—a positive one or of room for improvement. With the average of

all subjects (*n*=216) authenticities being a 3.54 out of 5, there is an indication that most

teachers have at least been trained and understand the importance of authentic-type

instruction. If universities and other teacher training programs continue to move their

students toward authentic-type instruction and develop educational leaders who demand

these methods, then there is the chance that schools can make this transition. This can

only be accomplished through the development of an entirely new culture based upon

authenticity—not just in colleges of education, but it must be accomplished in all other

subject areas as well. If, however, education students come out of teacher training

programs understanding the importance of authentic instruction only to be met by the

strong anti-authentic socialization influences present in most of today's schools, then

there will forever be an uphill battle to full implementation. If, as the research suggests,

the realization of authentic teaching in our schools will lead to higher levels of

achievement by our students, then creating this new culture is of the utmost importance

for school leaders. In order to change this culture, school leaders will need the support of

district, state, and federal level agencies that ultimately set the tone for what is taught and

how it should be taught to students.

State and Federal Level

The results of this study have implications for state and federal level entities,

which often determine what constitutes an effective teacher, how and where to recruit

teachers, and how to fund their preparation. There is a current push toward alternative

certification methods that, at least in part, claim to bring more authentic educators into

the classroom (Sindelar et al., 2004). This research shows that this may not be an

effective method for accomplishing this objective (Brindley & Parker, 2010; Darling-

Hammond, 2000; Tigchelaar et al., 2010; Wilcox & Samaras, 2009). Because this study shows there is no overall increase in perceptions of authenticity as the result of having had a previous career, there may be a greater necessity for classes that model authenticity in order to bring out the real-world skills certainly present in career-switching educators (Tigchelaar et al., 2010). The time to participate in and understand these methods would certainly be lacking in many of the fast track alternative certification routes. Developing fast track certification programs could certainly succeed in filling vacancies left in classroom positions, but they may not necessarily be effective in increasing authenticity within a school building like they claim.

Final Thoughts and Further Research

In all, this research shows that how educators *think* about authentic instruction is not necessarily a function of experience within the "real world" prior to their entrance into the teaching profession. This research indicates that though much of the previous literature on second-career educators points toward these individuals valuing and displaying a greater degree of authentic-type teaching, this in fact may not necessarily be the case. This analysis shows that *all* of the groups studied value authentic teaching and the associated characteristics employed within it—value beyond instruction, depth of knowledge, and construction of knowledge. Significant differences were found, however, at the individual question level with career-switching educators continually being more authentic. This points to a degree of variability or "noise" present in several areas, which would certainly entail that further research is necessary to isolate the cause of these differences.

Further takeaways from this research are that the current schooling system and the accompanying ecology of today's classrooms does not lend itself easily to authentic-type instruction. This research has shown that there is a degree of socialization that takes place throughout the course of one's educational career—regardless of whether they held a previous career or not. The longer a person is in the school system, the less likely they are to engage students with hands-on skills, focused upon creativity and authentic presentations of their knowledge. This socialization may in fact be *more* prevalent in second-career teachers. Luckily, this correlation is small. This change in the teachers' theory of authentic action regarding student construction of knowledge, in particular, says a lot about the socialization of the teacher. The system within which most educators work makes it difficult to use more open-ended techniques. The standardized testing environment appears to enforce, to a large degree, what works within it—objectivist teaching focused on factual recall with students never truly understanding the concepts with a depth of knowledge. This occurs while students never truly connect or construct their knowledge by seeing the subjects' importance within the real world. In short, the teaching remains inauthentic as the result of the system, not the fault of the teachers. This research demonstrates that most teachers value authentic pedagogy—whether they are first or second career educators. Additionally, this research shows that, as modeled by Korthagen's (2004) Onion Model, though the classroom environment is affecting the beliefs of these teachers over time, the affect is small. This leads to the possibility that educational leaders can take action to stop it, because both groups of teachers seem eager to enact these types of pedagogy.

It will only be through strong leadership and a willingness of teachers to experiment with new techniques, breaking from the "mold" that those have set around them, that authentic instruction will take hold. Seeing through this research that there is no difference between the perceptions of authenticity between first and second-career educators is a first step toward the realization that all educators *think* that this type of instruction is important and effective. The questions remain: are there differences in actual *practice* between these groups of teachers? What teacher education courses can be presented to current and future teachers to effectively model authentic instruction? How do we train leaders who can make the link between research and practice in order to create a culture of authenticity within today's schools? Continuing from the standpoint of leadership, questions arise, such as: what are the characteristics that principals and district personnel portray in order to foster this type of teaching. Additionally, how do these leaders change the mindset of teachers who are unwilling to move in this direction due to the external forces at play (standardized tests and the ecology of the classroom). Analyses should be created to determine which teacher education programs or even which individual classes create the mindsets needed to develop and implement authentic instruction. As a companion to these questions, what classes and/or skills do the most authentic teachers possess in order to *persevere* through the inevitable hardships that the previous literature shows they will encounter (Tigchelaar et al., 2010)? Seeing that, under Korthagen's (2004) Onion Model, the environment over time can alter beliefs, the next phase of the research is to observe the pedagogy of these two groups to see if any differences are present. Though both groups (first and career-switching teachers) have similar Authentic *Theories* of Action, the question arises: are their actions or behaviors

the same as well? Answering these questions is the work of future research based upon these initial findings regarding the *Theory of Authentic Action* between first and career-switching educators. The ultimate goal of this research is to find, train, and retain the most effective teachers who are able to create lessons that inspire and motivate our students to the highest levels of success and enjoyment of learning through authentic instruction.

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APPENDIX A

Theory of Authentic Action Survey

Theory of Authentic Action Survey

Total Cronbach's Alpha Value= 0.865
Number of items= 43

Value Beyond Instruction (α=0.883)

1. When students participate in real-world tasks they are more likely to understand the subject in which they are involved.
2. I emphasize that students should make connections between my subject and real world situations.
3. Learning through realistic situations promotes students to make connections between the world outside of school and my subject.
4. Students learn more when they are working on realistic situations then when they are assigned practice problems that seek to aid recall of information
% 5. Students do not need to be presented with problems from the real world to be competent in my subject.
% 6. Having students present their results to an audience besides me is not very important to their learning.
7. It is my job to pose tasks that are likely to be addressed by the student in his/her daily life.
8. Grades should mostly be determined by students' ability to solve naturally occurring problems in the world.
9. Students' grades should, in large part, represent their ability to communicate findings to an audience beyond the class.
10. Curriculum units should always include projects where students must present their material to an audience outside of school.
% 11. Trying to relate lessons to students' out-of-school experiences is complicated and often interferes with the lesson's development.
% 12. The majority of the tasks given to students in my class should be isolated from problems that have uncertain components.
13. My classroom should be used to model real-world events.
14. My teaching is grounded in application from the real world.
15. My subject is intricately connected to the real world.

Depth of Knowledge (α=0.836)

1. Covering few topics in greater depth would allow my students to build important connections between my class and others.
2. To really understand my subject students must share their ideas, opinions, and reasoning with one another.
3. It is essential for students to learn the interconnectedness of multiple subjects to fully understand them.
4. Students must justify how they solve complex problems through presentation of their methods and understanding.
5. Students should learn procedures primarily by understanding why and how they work.
6. The majority of students' grades should be based on their ability to explain and justify their reasoning.

7. Teaching isolated topics does not supports students' ability to remember the information later.

8. Tests should mostly include problems and questions that require students to integrate multiple pieces of information.

9. Assessments should focus on students' ability to make connections from one topic to another both between units and between other subjects.

10. Teaching topics separately from each other inhibits students from becoming good problem solvers.

% 11. Instruction should focus on procedural skills and following directions.

% 12. Students learn best by repetition.

13. My subject is an interconnected discipline.

14. My subject is ordered but can be taught in different ways.

% 15. My subject is rule-based and sequential in nature.

% 16. My subject is highly structured and hierarchal.

Construction of Knowledge (α=0.832)

% 1. If students can simply follow directions, they will be highly successful in my class.

% 2. Students cannot solve most real-world problems until they have mastered the basic facts about a subject.

% 3. Students must master basic facts before they can solve complex problems.

% 4. Students learn best by using the teachers' explanations.

% 5. Overall students learn best by rehearsing and memorizing rules, definitions, and factual information.

% 6. I must present already known facts to students for them to understand my subject.

% 7. Students should be graded in large part upon their ability to remember and use facts to answer questions about my subject.

% 8. I use tests solely to find out whether students remember the information learned about my subject.

% 9. The curriculum should be organized in a sequential fashion so students learn basic skills, rules, and facts before attempting to make sense of real-life problems.

   10. Most problems can and should be solved using different strategies.

% 11. Students should learn a collection of facts, rules, and skills before applying them to solve problems.

% 12. There is usually a best way to solve a problem or answer a question in my subject.

% 13. In order to understand my subject, students need to know a collection of facts, rules, and skills.

APPENDIX B

Informed Consent and IRB Cover Letter

Consent to Participate in a Research Study
Bringing the Real-World into the Classroom-AUTHENTIC INSTRUCTION
SURVEY

You are invited to be a part of a research study to determine whether certain paths into a teaching career affect a teacher's level of *Authenticity*, which is defined, in large part, by how often the individual brings real-world scenarios into their classroom. This study is being conducted by Eian Harm for completion of a doctoral degree from the Boise State University's College of Education.

The purpose of this research is to establish whether there is a difference between the beliefs of first career and second career teachers and educators, with regard to teaching and learning. The study seeks to analyze the impact of a previous career on an individual's beliefs about teaching and student learning. If you agree to be part of the research study, you will be asked to complete a survey that will take about 10 minutes of your time. As the result of your participation you will be entered into a lottery in which four (4) individuals will be chosen at random to win $50. This is a thank you for your participation.

After completing the survey your email address will be entered into this lottery (if you so choose) and the drawing will be on January 31st, 2013. After your initial completion of the survey you will not be required to do anything further.

All entries and data will be completely confidential and there is no risk to you in your participation. If, however, you would like to exclude your return email address from the study, you can still participate anonymously – however, you will not be eligible to win the $50 lottery.

Again, participating in this study is **completely voluntary**. Even if you decide to participate now, you may change your mind and stop at any time. You may also choose not to answer any of the questions if for any reason you feel this is necessary.

If you have questions about this research study, you can contact Eian Harm at: eharm@hotmail.com

The Boise State Office of Research Compliance's Institutional Review Board (IRB) has determined that this study is exempt from IRB oversight – meaning there is minimal risk involved for participants.

APPENDIX C

Second Career and Encore Career Data

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Table C1   *Descriptions of career, subject area, and subject matter fit to previous career*

Was teaching your first "career" out of college?	If you chose "other", please explain your circumstance	College or university attended for teaching credential and location	What was your previous career, if applicable?	What subject(s) do you/did you teach?	Subject Matter Taught (Langua ge=1, Math=2, Science= 3, Art=4, Business =5, SPED=6, Admin=7 , Social Studies= 8)	Fit to Previou s Career (1= perfect fit, 2= ok fit, 3= no fit)
No		Boise State University	Legal Secretary	English	1	1
No		University of Utah SLC	marketing/Hotel	world languages/ psych/engli sh	1	2
No		Boise State University, Boise ID	United States Air Force Officer	Algebra II and Geometry	2	3
No		University of Idaho, Moscow Idaho	freelance musician, adjunct music faculty, private instructor	Band, orchestra, guitar, music theory	4	1
No	I decided to get my teaching credential after tutoring students in math. I discovered many of the students could do the math. Their teachers were not teaching them how to do the math correctly.	Claremont Graduate School, Claremont, CA	Juvenile delinquency prevention and job placement.	Conceptual math, algebra I algebra II, geometry, math analysis, skills, credit recovery, leadership, goverment, 7th and 8th grade social studies, Spanish 1 and II and technical writing	2	3
No		BSU, Boise, Idaho	Environmental Scientist, DEQ	Earth Science, Astronomy, Entomology	3	1

No	Worked in a grocery store and was the office manager	Idaho State University	Grocery Store Office Manager	Business Computer Apps, Economics and Desktop Publishing	5	1
No		Boise State University	Accountant	Economics/ Global	5	1
No		Idaho State University	Business and Marketing	Business	5	1
No	No options available for a bachelor's degree in Biology.	Whitworth College (now University) for my Master's in Teaching degree	Numerous careers: Nuclear fuel reprocessing chemistry, Computer data processing, Histolog/Pathology Assitant	Biology, Zoology, Wildlife Biology, Gardening, Horticulture	3	2
No		U of I Boise	Electrical Engineer	Pre-engineering and Math (not currently teaching Math, but did and am certified	3	1
No	i taught ice skating at ice capades skating schools, worked as an associate producer in adverstising amd then trained to become a stock broker, hair dresser	cornell university, indian river community college and florida atlantic university	see above	special education, extended resource	6	
No	Graduated with a B.S. in Biological Sciences, work was sporadic or non-existent as a biologist. Worked as a construction worker until completing my Master's in Education and entered	Boise State University - Boise Idaho	Biologist, Construction Worker (floor covering installer/salesman, truss builder)	Building Principal	7	2

	teaching.				
No		Boise State University	Veterinary Medicine	Biology & AP Environmental Science	3	1
No		University of Idaho, Moscow, ID through internet in boise	I was a mortgage banker and credit analyst. I then mommy tracked for several years.	Family and Consumer Science	9	3
No	I had a few different jobs. I did mostly work with students in an outdoor education environment, but did not hold a teaching certificate and it was not a traditional teaching environment.	California State Dominguez Hills	Outdoor Educator	Earth Science	3	2
No		Boise State	Member of the technical staff for an aerospace firm	Mathematics	2	1
No		Boise State University, Boise, ID	Toy Store Manager	English, Debate	1	3
No		George Fox University-MAT Program-Boise Campus	Sales (Undergraduate degree in Marketing and Human Resource Management)	Algebra and Physical Science	2	2
No		Boise State University, Boise, Idaho	Newspaper, farming, law	Government, History 10, Global perspectives, Law, Psychology	8	1

No		University of Idaho	Architect	Introduction to Engineering Design, Principals of Engineering, Civil Engineering and Architecture	3	1
No		College of Notre Dame, Belmont, CA	Management and office positions	Family & Consumer Science, Food Production/ Culinary, Health	9	2
No	Had 4 other careers out of college.	Boise State	Graphic Artist and Restaurant Manager	Art and Photography	4	1
No		Boise state University	Paistry Chef	Physics, Earth Science, AP Physics, Astronomy, Oceanography	3	3
No		Ashford Univeristy-Online, ABCTE	Interpreting-ASL	American Sign Language	1	1
No		boise state university; boise, Idaho	Running a small business: a taekwondo school.	Secondary language arts (English); Reading; Myths and Legends	1	3
No		Ashland University Ashland, Ohio		Life Science	3	
No		Boise State Univ, Boise, ID	Army National Guard	Geometry and Integrated Algebra/geometry	2	2
No		nnu, Nampa, id	Medical Claims Examiner, Test Administrator	Life Science, Biology, Human A/P	3	3
No	government - environmental	ABCTE	Government	Earth Science, Biology, Cornerstone, Wildlife	3	3

				Biology, Chemistry in the Community,		
No		Boise State	Athletic Training	Social Stuides	8	3
No	marketing-hotels- los angeles. one year was all i could stand	u of utah slc utah	comms/marketing/hotels international tourism	japanese/english/psych	1	1
No		Boise State University		math	2	
No		Boise State University, Boise Idaho	Hotel building Engineer	Speech, History, Government, Economics, Global perspectives	8	3
No	Worked as an Office Manager while went back to school to get Teaching Certification	Boise State University	Soldier, Office Manager	History	8	3
No	I worked in magazine publication.	University of Texas at San Antonio	Editorial assistant	English and ESL	1	1
No		Old Dominion University Virginia Beach, VA	Carpet Cleaning, Children's Group Home, Insurance Adjuster	Special Education	6	2
No		Boise State University	Bank Auditor	Mathematics	2	1
No		bsu	programming	math, social studies	2	2
No		Spalding University, Louisville, KY	Russian linguist and intelligence analyst	English	1	1
No		Boise State	Field Biologist, and Banking	Anatomy & Physiology, AP Biology, Biology	3	1
No		bsu boise,id	office sales manager	math	2	2

No	I avoided teaching based on a family history of educators and my own pride (wanted to do something more impressive sounding that teaching). I didn't want to be the coed who went into teaching "in case" she needed a job while raising her children.	BSU - I enrolled in a cohort program for non-traditional students with a BA, BS or Masters degree	technical writer	English	1	1
No		Boise State	Interior Designer	Art	4	1
No		Boise State University	I was a part time employee at private preschools.	English-Concurrent English	1	3
No		California Baptist University	Social work	Special Education	6	1
No		Boise State University	Athletic Trainer	Sports Medicine 1, Sports Medicine 2, Sports Medicine 3, and previously Health	3	1
No		Southern Oregon University, University of Idaho	Business-Personel	Nutrition. Intro to Culinary	9	3
No	Married right out of college and relocated to a State that required a 5 year certificate. I raised my family before coming back into teaching. I worked at several other	Boise State	Draftsman, and Landscape Nursery Salesman	Librarian		3

	jobs before deciding to get an Idaho Certificate and Media Generalist endorsement.					
No		Boise State University	Banking	PE/HEALTH	9	3
No		University of Toledo, Toledo, OH	retail management	English/ Theatre	1	3
No		Portland State, Portland, OR	I had a business degree and worked as a manager, also, I worked in few labs after I graduated with my science degree	Science	3	2
No		University of Phoenix	Management	Video, Broadcasting	4	3
No		George Fox University, Meridian Idaho Campus	Degree in Pastoral Studies	English	1	2
No		University of Idaho	Forest management	Anatomy and Chemistry	3	2
No		Boise State University, Boise, Idaho	Social Worker	Special Education	6	1
No		Boise State University, Boise, Idaho	secretary	English, Newspaper, Creative Writing, Intro to News	1	1
No		BSU		Spanish, ELL, American Sign Language, Reading	1	
No		ABCTE	Geologist	Life skills reading, math, and English,	6	2

				social skills, science and life skills general		
No	Civil Engineer first.	University of Idaho	Civil Engineering	Engineering	3	1
No		Chapman University (Extension program at Visalia, CA)	Propane Company Manager	Math - variety of classes	1	2
No		Boise State	Retail/ Small Business	Admin	7	2
No		Boise State University, Boise, ID	Stay at home mom + secretarial + social science work	English	1	3
No		Boise State	Land Surveyor	Industrial Technology, Science & World Civ.	3	2
No		Northwest Nazarene University, Nampa, ID	Human Resources	Math	2	3
No	I worked in my field for about 30 years and decided to end my career by teaching in my field.	University of Idaho, Boise	Mid-level general management and IT (Information Technology) Management	Business Technology, Web Design, Computer programming	5	1
No	I worked through school, taking a few extended breaks from college before receiving my first degree and continuing to work as a manager for the company that helped me pay for school. We were bought out by another company and the local warehouse I worked in was closed. I went back to school	Boise State University	Shipping/Receiving Clerk/Manager	English	1	3

	for my teaching certificate and finally came to the profession I originally considered.					
No		University of Idaho	Collision Repair Technician. I am a PTE instructor	Collision Repair		1
No		None	Counselor; parent	Language arts, psychology, humanities, film	1	3
No		University of Idaho	Banker	Business/Marketing	5	1
No		Boise state university, Boise idaho	Account manager for consolidated freightways	Economics, AP Gov, AP Micro, AP Macro	5	1
No	My degree is in Criminal Justice and I did paralegal work first	ABCTE online	Para Legal	Extended Resource	6	3
Other	I began teaching after going on for my masters degree	Idaho State University	n/a	computers, business, careers, economics, computer apps, yearbook	5	
Other	I worked as a manager for several years before going back to school. In that sense, I had a career before I began teaching, though I did not	Boise State University	Store Manager	English, Creative Writing, Myths and Legends	1	3

	have a degree.					
Other	I didn't go to college until after my first career. I worked at Macys selling cosmetics for 14 years.	University of Nevada, Reno	I sold cosmetics for Estee Lauder at Macys	World Geography	8	3
Other	I did get an education degree but was working construction and planned to continue but a principal got my name from a colleague and offered me a job which I took at 25 years old	BSU--Boise Idaho	Construction, Labor in Wyoming Oil industry	7th grade reading and composition Junior English, 9th English, Senior English, Creative Writing, Langauage Skills Lab. American Character	1	3
Other	My first official career was teaching however I joined the Army Reserve while in college and deployed to Iraq and spent three years on active duty before finishing my degree	Boise State	Military-Army Reserve	Government and Intro to Law and Civil Law	8	2
Other	I had 15 years of management experience in the financial industry before going back to college to get my bachelor's degree. After I graduated, then I began my teaching career.	Boise State University, Boise, Idaho	Regional Customer Service Manager for the largest credit card transaction processor in the U.S.	Latin I-III and Honors Sophomore U.S. History	1	3

Other	I served a term of service with Americorps prior to returning to school for teaching. I also worked as a children's librarian for three years. All of my previous jobs (not careers) were somehow related to education, making education a relatively easy transition.	George Fox University		English	1	
Other	Did not earn a degree right out of High School, worked for 18 years in the private sector in a multitude of jobs. Then returned to school for my degree and became a teacher.	BSU	Bartender, Greens keeper	Psychology 1 & 2, American Governemnt, Native American History	8	3
Other	Working and going to college resulted in my progress in a medical career in cancer administration which I quit in order to finish my degree requirements and pursue teaching.	Boise State University Boise, ID	CNA/MIS specialist	English	1	3

Other	I chose "other" because I went back to school later in life and started my teaching career in my 40's. I was in the army and was a tank mechanic. Most of my life I spent as a mechanic, but art was always there, and now I teach art and I love it.	Boise State University, Boise Idaho	Mechanic	Art, Drawing, Design, Painting	4	3
Other	earned the degree, worked out of subject area, returned to university 25+ years later for teaching credentials (alternate route)	Boise State University	business	Mathematics: Algebra 2 & AP Statistics	2	2
Other	I work as a commercial fisherman and had for years before my teaching career, not associated with my subject area at school, but graduated with a non-education degree and went back to school for the teaching credentials later	Boise State University, Boise Idaho	Commerical Fishing	Drama Communications	4	3
Other	I was a manager at Taco Bell before I finished college :)	Idaho State Univeristy, Pocatello	Food Service	Mathematics	2	3
Other	My first career was teaching out of college but left teaching before returning to it.	Eastern Oregon Unirversity	Construction	Health, Leadership, Administration, PE, Math, and Rock and Roll History	2	3

Other	During college I worked in research labs before settling on teaching.	Boise State		High school science, AP environmental science, ecology, oceanography	3	
Other	Majored in English and did not want to be a teacher right out of college, but I did not have a career that was English based. Went back to school to earn my credential a few years after college.	Boise State University		Language Arts	1	
Other	I was an accountant and went back to school to obtain a masters degree to teach.	George Fox University	CPA	Economics, Business Education, Government	5	1
Other	I received a degree in International Studies with my major in Spanish, always knowing I would go into education right after I graduated. I knew I would have to take other classes in order to do so but because of certain circumstances I chose my major and chose to get certified the "hard" way.	AUM (Montgomery, AL); MSU (while in Italy); ENMU (New Mexico); BSU	N/A	Spanish	1	

Other	I began as a journalism major and switched to education with only a semester left before earning my degree; during a brief hiatus from school I participated in AmeriCorps as a reading tutor which changed my career pursuits to education. Throughout college I had several jobs but also pursued a career in retail as a department manager.	Boise State University	See above	Freshman Cornerstone/Freshman English	1	
Other	I got an English degree then worked in the business world for a few years. Then I went back to get a teaching certification. Business experience was not related to teaching career at all.	BSU		Language Arts	1	
Other	Worked in customer service and outside sales for ten years. Didn't get BA in English until 29. Started teaching at 31.	Boise State	See above	English	1	
Other	I earned my first B.A. in interactive multimedia in 2000 then my B.A. in education in	Boise State University, Boise ID	Real Estate Investor	Keyboarding, Exploring Computers I and II, Film Making	5	3

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Other	Original intention was to make the military a career. Military service proved to lack challenge, so upon honorable discharge pursued several degrees simultaneously, completing all, worked as a University administrator, then went into teaching.	Pacific Lutheran University	Russian Linguist, Military Intelligence, United States Army (Signals Intelligence SIGINT and Human Intelligence (HUMINT))	AP Macroeconomics, AP Microeconomics, Traditional Economics, Student Council, U.S. History 1-2, AP European History (pending)	5	2