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Note from NCPEA Publications Director, Theodore Creighton

Beginning with this Volume 8, Number 1 (March 2013) issue of the *International Journal of Educational Leadership Preparation* (IJELP), we notify our authors, readers, reviewers, and the education community at large, that NCPEA will contribute this content to the Open Education Resources (OER) movement. This contribution to OER will be permanent and continue through the future.

In August, 2005, NCPEA partnered with Rice University and the Connexions Project, to publish our IJELP as open and free to all who had access to the Internet. Currently, there are over 400 peer-reviewed research manuscripts in the NCPEA/Connexions database. The purpose of the NCPEA/Knowledge Base Connexions Project is to “add to the knowledge base of the educational administration profession” and “aid in the improvement of administrative theory and practice, as well as administrative preparation programs.” Our partnership continues but a new door has opened for NCPEA Publications to join the OER movement in a more substantive and direct way. In March 2013, NCPEA Publications and the NCPEA Executive Board committed the IJELP to the OER movement.

What are Open Educational Resources (OER)?

Open Educational Resources (OER) are teaching and learning materials that you may freely use and reuse, without charge. Open Educational Resources are different from other resources an educator may use in that OER have been given limited licensing rights. That means they have been authored or created by an individual or organization that chooses to provide access to all, at no charge. NCPEA Publications is committed to providing access to all, while assuring author/s of full attribution as others use the material.

The worldwide OER movement is rooted in the idea that equitable access to high-quality education is a global imperative (and to NCPEA, a moral/ethical responsibility and issue of social justice). Open Educational Resources, or OER, offer opportunities for systemic change in teaching and learning through accessible content, and importantly, through embedding participatory processes and effective technologies for engaging with learning. The OER Commons project aims to grow a sustainable culture of sharing among educators at all levels.

What is the OER Commons?

The Institute for the Study of Knowledge in Education (ISKME) created OER Commons, publicly launched in February 2007, to provide support for and build a knowledge base around the use and reuse of open educational resources (OER). As a network for teaching and learning materials, the web site offers engagement with resources in the form of social bookmarking, tagging, rating, and reviewing. OER Commons has forged alliances with over 120 major content partners to provide a single point of access through which educators and learners can search across collections to access over thousands of items, find and provide descriptive information about each resource, and retrieve the ones they need. By being "open," these resources are publicly available for all to use.

What NCPEA OER is Not!!

NCPEA open educational resources are not an open door at the NCPEA Publications submission and review stages. We have always insisted on and will continue to require very thorough peer-reviews (double and often triple-blind). NCPEA Publications is fortunate to have a cadre of professional reviewers (university professors), numbering at approximately 400. Topic Editors first consider a submitted manuscript, and if appropriate content, selects/assigns two reviewers who also have the expertise/interest in the manuscript's specific topic. This process assures that reviewers will read an author's manuscript with expertise/experience in that area. The IJELP has an approximate acceptance rate of 20%. This current Volume 8, Number 2 has a 22% acceptance rate.

The "openness" of the IJELP OER comes at publication stage. Once the issues are published, they are formatted/published in an open access website, indexed by Education Resources Information Center (ERIC), catalogued as a "commendable journal" in the Cabell's Directory, and provided to the Open Educational Resource database. The IJELP is currently viewed and read by educators from over 72 countries (many 3rd World) and all 50 U.S. States (data provided by Google Analytics).

Read More at: <http://www.oercommons.org>

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The manuscripts in Volume 8, Number 2 (October 2013) have been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration (NCPEA) as significant contributions to the scholarship and practice of school administration and K-12 education



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Leadership Lessons from North Korea: An Analogy to the ISLLC Standards

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This module draws parallels between conditions in North Korea and the work of school leaders, as defined in the 2008 ISLLC Standards. It is intended to demonstrate to educational leadership preparation programs how seemingly unrelated contexts may be utilized to capture students' attention, hopefully with the result of enhancing their understanding and internalization of basic principles of educational leadership.

INTRODUCTION

The *Educational Leadership Policy Standards: ISLLC 2008*, developed by the Council of Chief State School Officers (CCSSO) and adopted by the National Policy Board for Educational Administration, have been adopted or adapted by almost every state (Canole & Young, 2013). These standards provide the theoretical framework for this module. They also form the basis for the vast majority of school leadership preparation programs in the US. These standards were based on over 100 research projects and studies (CCSSO, 2008) and are supported by numerous studies since their publication (see the comprehensive reviews of Canole & Young, 2013 and Young & Mawhinney, 2012).

The second theoretical foundation for this module comes from the writings of Cha (2012), Demick (2010), and Lankov (2013) on North Korea. The purpose of the module is to draw an analogy between leadership issues in North Korea and the leadership guidelines contained in the 2008 ISLLC *Standards*. The premise is that leadership challenges and principles cross disciplines and cultures. The challenges that face North Korea's leaders may seem very different than those faced by US school leaders, but, fundamentally, there is much each could learn from the other.

Because most participants in educational leadership preparation programs are teachers who have put in a full day of strenuous work prior to attending class in the evening, it is essential that the chosen content be delivered in a manner that is engaging and memorable. The decision to draw the analogy between the ISLLC *Standards* and North Korea was based on the fact that it is a country about which most Americans have scant knowledge, even though it often dominates the headlines. Therefore, it is hoped that this analogy will draw students' attention to the ISLLC *Standards* somewhat creatively.

Sources of Knowledge on North Korea

Due to governmental restrictions, it is extremely difficult to obtain first-hand knowledge of the conditions in North Korea. However, there are several current books that have achieved substantial acclaim for what many people believe to be unbiased reporting. The fact that there is such great concordance among their perspectives and descriptions helps to support this veracity.

The first book is *The Impossible State: Past and Future*, by Victor Cha (2013). Cha is a former White House official whose professional expertise was North Korea. A second book is *Nothing to Envy: Ordinary Lives in North Korea*, by Barbara Demick (2010). Demick is an award-winning journalist who followed the lives of six North Korean citizens over a 15-year period. As a *Los Angeles Times* correspondent stationed in South Korea for seven years, Demick interviewed North Korean defectors and visited North Korea when permitted. A third source is *The Real North Korea: Life and Politics in the Failed Stalinist Utopia*, by Andrei Lankov (2013). Lankov is a native of the former Soviet Union who lived in North Korea as an exchange student in the 1980s. Fluent in Korean and with a network of North Korean contacts, he has studied that nation for his entire career.

The Importance of Leadership

The ISLLC *Standards* are based on the premise that: “Studies find leadership is second only to classroom instruction in influencing student outcomes” (CCSSO, 2008, p. 8); this conclusion is based largely on the work of Leithwood, Louis, Anderson, & Wahlstrom (2004). A qualitative study of low-income high-performing elementary and middle schools in Alabama revealed that the high-achieving schools all shared on common element – strong leadership (Carter, Lee, & Sweatt, 2009). On North Korea, Cha (2012, p. 60) wrote, “My friends who are China scholars remain eternally optimistic about North Korea’s reform prospects....But North Korea does not have a Deng Xiaping.”

North Korea has had very stable leadership, however. Kim Il-sung ruled for five decades (1948 to 1994); his son, Kim Jong-il, ruled from 1998 until 2011; and his son, Kim Jong-un, took office in 2011. Schools, in general, do a far worse job of succession planning (Hargreaves, Moore, Fink, Brayman, & White, 2003). An unpublished follow-up to the Carter, Lee, and Sweatt (2009) study revealed that student performance in some of those high-achieving schools had dropped considerably; this generally coincided with a change in the school’s leadership. In the medium-sized city where this author resides, 30% to 40% of the schools have changed leaders each year for the past five years. National estimates are for a new principal every three to four years (Wahlstrom, Louis, Leithwood, & Anderson, 2010).

On North Korea, Demick (2010, p. 180) wrote, “An absolute regime needs absolute power.” All three authors illustrated that over-control leads to compliance, but not necessarily to productivity. Although no one approach to educational leadership has been proven superior, it is known that school leaders’ primary effects come through shaping school conditions such as goals, vision, culture, and structures and by motivating teachers and providing instructional guidance and feedback (Louis, Leithwood, Wahlstrom, & Anderson, 2010). These roles do not appear to lend themselves well to authoritarian leadership. Each school presents a unique set of characteristics and needs; these change over time. Rather than adopting Fiedler’s (1964, 1967) *contingency approach* of selecting a leader whose style seems best suited to the present

conditions, it may be wiser to pursue a *situational approach* to leadership (Hersey & Blanchard, 1988), wherein the leader reads the situation and adjusts his or her leadership style accordingly, or the *transformational approach* (Bass, 1990; Bass & Avolio, 1993, 1994; Burns, 1978), in which the leader sets the vision and motivates, not forces, followers to accept and pursue that vision while attaining their own higher order needs. Canole and Young's (2013) analysis of the first ISLLC *Standard* found that maintaining stewardship of a school's vision falls well within the concept of servant leadership brought forth by Greenleaf (1997).

Idolization of a leader may only be temporary if results do not measure up. From the 1970s, it was declared that every home must display a portrait of the Great Leader and all adults must wear a badge with his portrait on it. On the Great Leader's birthday, every North Korean must worship at the nearest statue of the Great Leader. "In school, 33 percent of the curriculum is devoted to the personality cult of Kim" (Cha, 2012, p. 165).

As much as strong leaders may contribute to a school, they must guard against their own idolization. Successes must be organizational or communal successes, not the leader's success. The focus must be on the school's mission and vision, not on its leader. For this reason, shared or distributed leadership (Spillane, 2006; Rasberry, with Mahajan, 2008; Leithwood, Marshall, & Strauss, 2009) may well be even more effective than *heroic* or *focused* leadership (Leithwood, Mascall, Strauss, Sacks, Memon, & Yashkina, 2009). One of the functions of *Standard 3* is to develop the school's capacity for distributed leadership.

ISLLC Standard 1: Setting a Widely Shared Vision for Learning

The first ISLLC *Standard is*: An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.

The five functions that further articulate this standard are:

- A. Collaboratively develop and implement a shared vision and mission;
- B. Collect and use data to identify goals, assess organizational effectiveness, and promote organizational learning;
- C. Create and implement plans to achieve goals;
- D. Promote continuous and sustainable improvement;
- E. Monitor and evaluate progress and revise plans. (CCSSO, 2008)

All three authors concluded that North Korea's leaders believe their current vision and policy choices have no feasible alternatives. Although many people around the world question some of North Korea's international, and internal, politics as irrational, all three authors rejected this assessment, concluding that these behaviors demonstrate some rationality and consistency. North Korea desperately needs external aid. However, its leaders fear strong intervention from the United States, China, S. Korea, and even Russia (which used to provide copious aid until the breakup of the Soviet Union), so it can only accept aid on its own terms. Therefore, North Korea maintains a nuclear threat and becomes moderately aggressive in order to force appeasement and to garner more aid. Although this may not be in the long-term interests of the nation, it is certainly in the short-term interests of its rulers.

A similar dilemma is often faced in schools, although it is generally less about the self-interests of the school's leader than about two competing demands or values. For example, few principals favor the extensive standardized testing that arose under *No Child Left Behind*. It has produced a narrowing of the curriculum, primarily to those subjects tested. It has changed instructional techniques, favoring those best suited to producing higher test scores over those fostering creativity or integration of content areas. Principals understand, and often lament, this situation; however, they accede to it. The alternative would appear to them to be accepting lower test scores, resulting in negative publicity and a strong likelihood of their being replaced. They ask themselves *it that* would truly be in the best interests of their students and the community.

ISLLC Standard 2: Developing a School Culture and Instructional Program Conducive to Student Learning and Staff Professional Growth

The second *Standard* is: An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth. The nine functions that further articulate this standard are:

- A. Nurture and sustain a culture of collaboration, trust, learning, and high expectations;
- B. Create a comprehensive, rigorous, and coherent curricular program;
- C. Create a personalized and motivating learning environment for students;
- D. Supervise instruction;
- E. Develop assessment and accountability systems to monitor student progress;
- F. Develop the instructional and leadership capacity of staff;
- G. Maximize time spent on quality instruction;
- H. Promote the use of the most effective and appropriate technologies to support teaching and learning;
- I. Monitor and evaluate the impact of the instructional program. (CCSSO, 2008)

School leaders' primary influence on the school is through shaping its culture and climate (Leithwood & Jantzi; Leithwood, Jantzi, & Steinbach, 1999; Leithwood et al., 2004; Marzano, Waters, & McNulty, 2005). In turn, the culture and climate of the school influence teachers' motivation and students' performance.

However, cultures differ. Demick (2010) drew several telling portraits of how the cultures of North and South Korea differ. One of these involved views on romance between unmarried people. In North Korea, men and women do not hold hands until many years into the relationship. In South Korea, men and women are often seen holding hands, embracing, or even kissing in public. Demick noted that in North Korea, women were forbidden to wear slacks (although this is a rule not uniformly enforced) or to ride a bicycle. No such restraints exist in South Korea.

School cultures also differ. Core values and beliefs differ. School cultures differ in the extent to which that culture is shared, and to what depth. Teacher support, the consistency and clarity of rules and expectations, students' achievement orientation, peer interactions, disciplinary harshness, student and teacher input into decisions, instructional innovation and

relevance, support for cultural pluralism, and school safety vary from campus to campus (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). School mythologies differ, as do their heroes and heroines. As *Standard 2* mandates, an essential skill of a school administrator is assessing the school's climate and culture, selecting those elements to which the leader wants to give emphasis or to modify, and to systematically extolling or shaping those elements.

Appreciation of beauty depends on a healthy culture. All three authors depict North Korea as bleak and drab. North Koreans are astounded with the use of color in Chinese and South Korean clothing. In North Korea, new clothes are dispensed by the government: drab indigo for factory workers, black or gray for office workers (Denick, 2010, p. 62). Other than huge statues idolizing the "Great Leader," the only artwork mentioned in any of the books was the mandatory two photos of the Great Leader, which must hang in all homes and buildings. Songs were almost all patriotic; North Koreans are punished for singing popular music from South Korea.

This maxim also carries a strong lesson for school leaders. Just as North Koreans who are hungry and/or repressed have little appreciation for beauty, children in school who may be hungry or intimidated also lose touch with the beauty around them, affecting both their learning and their lives. Too many children come from homes sharing some of North Korea's negative characteristics, across all socio-economic strata. School leaders must help build a school environment and culture and climate, which addresses these problems so that those children become able to see the beauty of learning, of their relationships with teachers, of their relationships with their peers, and of their own inner self. Schools must have cultures of safety, nurturing, and trust. School leaders must also ensure the same culture and climate for teachers, staff, and parents. Many parents had negative previous experiences in school as students or as parents of students. For them to appreciate the beauty of their child's school, the school must offer them a welcoming, safe culture, climate, and environment. They must be helped to feel a partnership with the school. Teachers and staff also can lose appreciation for the beauty of their work. Most educators who have worked in schools for any length of time can recall a "lounge lizard" who virtually never had a good word to say about students, colleagues, the administration, or the profession. Leaders must recognize these individuals and attempt to engage them in the positive aspects of the school culture or to minimize their potential toxic effects on that culture. At the same time, the leader must recognize those teachers and staff who embody the positive aspects of the school culture and celebrate them.

Weekly *Life Review* sessions are mandatory in North Korea. At these sessions, everyone must criticize him or herself, as well as criticize others. These sessions are generally viewed as obligatory, but minimally effective, at best.

As Follett (1926) noted pointedly, people respond negatively to orders or to criticism. Although principals may have to give orders, e.g., in an emergency, and may be tempted to criticize a teacher's teaching performance or attitudes toward students, parents, or peers, these must be minimized in order that they represent a clear, intentional divergence from the norm. This is a crucial precept of building a healthy school culture.

ISLLC Standard 3: Ensuring Effective Management of the Organization, Operation, and Resources for a Safe, Efficient, and Effective Learning Environment

The third *Standard* is: An education leader promotes the success of every student by ensuring management of the organization, operation and, and resources for a safe, efficient, and effective learning environment. The five functions that further articulate this standard are:

- A. Monitor and evaluate the management and operational systems;
- B. Obtain, allocate, align, and efficiently utilize human, fiscal, and technological
 - a. resources;
- C. Promote and protect the welfare and safety of students and staff;
- D. Develop the capacity for distributed leadership;
- E. Ensure teacher and organizational time is focused to support quality instruction
 - a. and student teaching. (CCSSO, 2008)

It is imperative to be careful in interpreting data in judging results. For example, North Korea officially claims a 0% unemployment rate, yet many of its factories have been closed down for years; the workers just sit around talking and attending government propaganda sessions. No paychecks have been issued in years, yet the government claims that the people remain employed. Similarly, with an almost total lack of medicines, North Korea's hospitals eventually emptied out. Demick (2010) pointed out that hospitals often had no heat, electricity, food, blankets, or bandages. They reuse hypodermic needles and perform surgery and even amputations without anesthesia. Doctors go years without any salary. People stopped bringing their loved ones. Yet, the government claims to offer a free public medical system.

School leaders also must be cautious in interpreting data. For example, a few years ago Alabama instituted a questionable way of calculating if a school made Adequate Yearly Progress (AYP). On a four-anchor scale, of which the bottom two categories are below satisfactory and the upper two categories are satisfactory or above, Alabama declared that schools' AYP status would be calculated on the basis of adding the percentage of students in the top two categories *plus* one-half the percentage of students in the second category. It was quite common to have relatively low percentages of students in the satisfactory categories and a very large percentage of students at Level 2; therefore, the school was judged as having attained AYP. Although the principal may be overjoyed at thus being spared the embarrassment of having the school's name, and the principal's name, splashed over the front page of the local newspaper as a failing school, he or she should look beyond this and realize that the majority of the school's students were performing at an unsatisfactory level. Similarly, school leaders must learn to disaggregate student performance data and school discipline data. Although overall numbers may look encouraging at first glance, it is often the case that sub-groups of the population are performing far below their peers.

The next set of lessons deal with resource management. The first is that it is not as much a question of how much money is spent as much as what it is spent on. For example, North Korea spends between 25% and 31% of its Gross National Product on the military, compared to less than 5% in most industrialized nations. It has over 13,000 artillery guns trained on Seoul, South Korea, alone (Cha, 2012).

This is very much the case for schools, also, where research has shown that the amount of money spent in a district is not related to student performance (Hanushek, 1981, 1986) and that how the money is spent is more important than the amount (Hanushek, 2003). For example, Alabama's Black Belt Region, named after the rich, delta soil in that portion of the state, serves an extremely poor student population. Because extra federal funding and grants monies are available to serve this deprived population, per pupil expenditures in many of these districts are among the highest in the state. However, in part because most federal programs and grants restrict *how* the money can be spent, performance continues to lag well behind the state average.

North Korea has learned to make do with what is available. For example, North Korean physicians hike into the hills to pick homeopathic herbs in the absence of other medicines. When intravenous fluid is available in hospitals, patients have to bring empty beer bottles to hold it. "If they brought in one beer bottle, they'd get one IV. If they brought in two bottles, they would get two IVs" (Demick, 2010, p. 141).

Effective school leaders must also make do with what is available. For example, in isolated, rural schools, it is far more difficult to find high quality chemistry or physics teachers, or Advance Placement teachers, than in wealthy, well-located suburban districts. Wise rural administrators must then recruit more aggressively, provide additional professional development to upgrade available teachers' knowledge and skills (admittedly difficult to offer), and provide additional feedback on their performance. They must rely more heavily on distance education to offer courses not able to be taught by the faculty in the school. They may encourage dual enrollment programs with institutions of higher education to supplement the upper level courses or technical programs provided by the school.

As all three authors noted, North Korea has painfully discovered that living on subsidy leaves little for the future if the receiving entity does not have contingency plans should the subsidy be removed. The Union of Soviet Socialist Republics strongly subsidized North Korea until the Union broke up in 1990. Suddenly, there was no external subsidy and North Korea's economy crashed. Its infrastructure quickly decayed and the country entered a prolonged, severe famine.

A similar, but fortunately less severe, plight has been faced by many school leaders. Grant monies are often available to begin promising programs; however, they generally have a finite life of only a few years. Unless the school leader has made proper contingency plans to replace the lost grant money, the program ends summarily, regardless of its benefits. Many grant proposals require the applicant to identify how the project will be funded following the grant period; unfortunately, these plans are seldom carried out, causing the need to find a different program for which funds *are* available, which creates discontinuity.

ISLLC *Standard 4*: Collaborating with Faculty and Community Members, Responding to Diverse Community Interests and Needs, and Mobilizing Community Resources

The fourth *Standard* is: An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse community interests and needs. The four functions that further articulate this standard are:

- A. Collect and analyze data and information pertinent to the educational environment;
- B. Promote understanding, appreciation, and use of the community’s diverse cultural, social, and intellectual resources;
- C. Build and sustain positive relationships with families and caregivers;
- D. Build and sustain productive relationships with community partners. (CCSSO, 2008)

Collaboration requires trust. In North Korea, *inminbans*, neighborhood watch commanders, keep close surveillance on their neighbors and report any perceived transgressions to the government. “An inminban head should know how many chopsticks and how many spoons are in every household” (Lankov, 2013, p. 39). This indicates a strong culture of mistrust and collaboration is minimal in North Korea. Trust and collaboration are also minimal between North Korea and any other nation.

Trust is also critical in schools. Teachers must trust their principal if he or she is to be effective as an instructional leader. Principals must trust the teachers, as, unlike North Korea’s *inminbans*, it is not feasible, or desirable, to keep close watch on them throughout the day. Students must trust teachers, and teachers must trust students if learning is to occur. Teachers must trust each other if shared governance is to be effective and if professional learning communities are to be developed.

The next lesson also deals with relationships. All three authors noted that North Korea maintains a positive relationship with just one country, China. This relationship is based on several major factors. First, China benefits from access to North Korea’s low-priced natural resources. China fears that turmoil in North Korea could lead to a mass exodus into China, placing a drain on resources and adding an unwanted cultural element. North Korea benefits from trade with China and from economic subsidies. However, China worries that North Korea’s ongoing political aggressiveness with South Korea, the United States, and Japan will cause China more harm than good. Although few countries have universally good relationships with all other countries, having only one positive relationship is highly unusual and problematic.

School leaders must be masters at forming relationships with a wide variety of stakeholders. School leaders who relate well only to a limited number of people seldom succeed. They are quickly labeled as “playing favorites” and lose the trust and involvement of the majority. Principals must be particularly “thick skinned” when individuals attack them negatively; for example, many parents are aggressive when discussing their child’s behavior or performance. The wider the net of positive relationships a principal can cultivate, the more likely the school is to develop a culture of shared leadership, trust, and involvement.

ISLLC *Standard 5*: Acting with Integrity, Fairness, and in an Ethical Manner

The fifth *Standard* is: An education leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner. The five functions that further articulate this standard are:

- A. Ensure a system of accountability for every student’s academic and social success;
- B. Model principles of self-awareness, reflective practice, transparency, and ethical behavior;

- C. Safeguard the values of democracy, equity, and diversity;
- D. Consider and evaluate the potential moral and legal consequences of decision-making;
- E. Promote social justice and ensure that individual student needs inform all aspects of schooling. (CCSSO, 2008)

A primary, underlying theme in all three books is that the Communism exercised in North Korea leads to a lack of individual incentives. There is no evaluation or reward of individual contributions, nor individual accountability. The authors did note that after the Soviets removed their subsidies in 1990, and when famine ensued, many North Korean women violated Communist principles and left their assigned jobs to begin entrepreneurial activities in the local markets. The government essentially turned a blind eye to these practices. These women's incomes depended on their individual work and became the primary source of income for many North Korean families.

This offers several lessons for prospective principals. First, evaluation, if properly done, can serve as an incentive. It is important for a principal to discuss with a teacher the positive aspects of an observed lesson, for this helps to ensure that the desirable behaviors will be repeated in future lessons. In discussing any negative aspects of the lesson, it is important for principals to employ Mary Parket Follet's (1926) advice that effective supervisors devise methods by which subordinates can best *discover* the issues to be corrected, and how to correct them, rather than ordering, or even suggesting, they do so. This is the self-awareness referred to in this ISLLC *Standard*. Such feedback, often indirect, can serve as recognition and incentive. It clearly recognizes the contributions of the individual teachers. Similarly, principal evaluative comments or discussions, handled in the same manner as described between the principal and teachers, can readily motivate staff members, students, and parents. All three authors discussed at length that democracy and diversity are antithetical to the culture of North Korea. It is clearly a dictatorship headed by a single family since the inception of the country. There is very little ethnic diversity, and diversity of ideas is squelched. Individual needs are basically disregarded, with the collective need seen as paramount.

As this ISLLC *Standard* guides, school leaders cannot afford to fail to promote democracy, diversity, and attention to individual student needs. Many schools are moving in the direction of becoming *professional learning communities* (DuFour, Eaker, & DuFour, 2005; Giles & Hargreaves, 2006; Harris & Muijs, 2005; Sparks, 2005). This is a fluid, democratic, participatory form of school leadership (Muijs & Harris, 2007) in which there is active involvement in decision-making by individuals at all levels of the organization (York-Barr & Duke, 2004).

School leaders must give attention to diversity. They are preparing students for a rapidly globalizing world (Friedman, 2005). To be successful in that world, students must learn to deal with cultural, linguistic, generational, religious, perceptual, ideological, and conceptual diversity.

Finally, school leaders must attend to the individual needs of their students, faculty, and parents. Despite its many critics, the No Child Left Behind Act of 2001 gave proper emphasis to monitoring each individual student's learning. It forced the disaggregation of test data to focus on the performance of sub-groups within the school, e.g., by race/ethnicity, eligibility for free or reduced price meals, eligibility for special education, and limited English

proficiency. It forces school leaders to determine which students are below Proficiency levels and for them to plan how to raise these students' performance. Failure to consider these individual needs can readily cause a school not to reach its Adequate Yearly Progress goals, as well as depriving the student of the best education possible.

ISLLC Standard 6: Understanding, Responding to, and Influencing the Political, Social, Legal, and Cultural Context

The final *Standard* is: An education leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic, legal, and cultural context. The three functions that further articulate this standard are:

- A. Advocate for children, families, and caregivers;
- B. Act to influence local, district, state, and national decisions affecting student learning;
- C. Assess, analyze, and anticipate emerging trends and initiatives in order to adapt leadership strategies. (CCSSO, 2008)

What people value varies from one locale to another. In the 1990s, North Korea entered a period of extreme famine. As salaries are almost non-existent in North Korea, the government provides heavily subsidized basic rations to everyone; however, this was not possible during the famine. People had to give up their grain staple, rice, and were forced to eat grass and tree bark. However, the government found ways to ensure that the North Korean people continued to receive their beloved kimchi (fermented, pickled cabbage). Each adult received 154 pounds per year, and each child received 110 pounds per year (Kemick, 2010, p. 63). What educators and students value also varies from school to school. In some schools, e.g., academic magnet schools, students value learning and preparation for higher education; in other schools, there is less of an academic orientation. In some schools, students value athletic teams, whereas in others, the marching band is even more highly valued than the football team. In some schools, especially rural schools, teachers value close ties to the community; in others, there is very little outreach beyond the school. In some schools, teachers value staying long hours after school tutoring students; in others, after-school contact with students is essentially confined to those teachers paid to coach, sponsor clubs, or tutor. School leaders must understand the culture of their school and decide if there are aspects to be supported or aspects to be modified.

The final lessons revolve around solving problems. Facing famine, in 1996 the North Koreans began to breed goats for milk and meat. The goat population tripled in two years, helping to solve the short-term problem of hunger. However, the goats denuded the hillsides, eating all the shrubbery. As a result, flooding wiped out the farmland below and flooded the coal mines, created even greater long-term problems.

This prototypical failure is related to this *Standard's* function: "Assess, analyze, and anticipate emerging trends and initiatives in order to adapt leadership strategies" (CCSSO, 2008). School leaders must be extremely careful that in addressing short-term problems, they do not end up creating new, more serious problems. In adopting reading programs that reward students with prizes for reading the most books in a year, could the school be placing quantity over enjoyment, over comprehension, or external motivation over internal motivation? In

guiding faculty to “teach to the test” in order for the school to reach its AYP goals, is a school leader moving away from creativity and higher level thinking skills that might benefit the students more in the long term? In suspending students for marginal behavior infractions, is the school leader downplaying the value of being in class or, worse yet, inching the student closer to becoming a dropout? Decisions must always weigh the short- and long-term consequences.

Conclusions

There are many lessons that prospective school leaders can learn from North Korea’s experiences. To the extent that these lessons are framed in an interesting context, such an approach may help aspiring school leaders to grasp and internalize them. To the extent that creative instructors presented and prepared these lessons, they can serve as the basis of rich discussion of students’ perceptions of these issues within their own schools, as a foundation for designing (and possibly carrying out) research studies and instruments, for designing aspects of principal evaluation systems, and for linking to further reading.

As Cha (2012) noted, it is obvious that there are no silver bullets or magic potions to solve North Korea’s problems; one should not expect a miracle. Changes are likely to be painful and even dangerous, regardless if the changes desired would be preferable to current conditions. Change will eventually occur in North Korea, “But one thing I am fairly certain of is that when the fateful day comes, the source of this battered country’s renewal will be its people (Cha, 2012, pp. 462-463). This mirrors Hall and Hord’s (2006) advice to school leaders that until the individuals change, organizational change will not truly occur. However, as Evans (2001) and Fullan (1991, 2001, 2005) explicated, people often tend to resist major changes, and helping them prepare for and accept changes is one of the most difficult roles a school leader has. Moreover, as in North Korea, in schools there are also no silver bullets or magic potions (Ravitch, 2010).

Some Instructional Possibilities

Because this module is intended as an instructional module in an educational leadership preparation program, a few andragogical possibilities are suggested:

1. Compare and contrast North Korea’s realities to students’ own school cultures and situations and discuss proper leadership responses.
2. Review and evaluate students’ current school’s leadership and culture vis-à-vis the ISLLC *Standards*.
3. Compare and contrast other nations’ cultures and leadership with North Korea’s and their analogies for school leadership.
4. Compare and contrast the state and/or districts in which the educational leadership preparation program is offered with North Korea and the implications for the optimal preparation of school leaders.

If the preparation program is a doctoral program, more emphasis should be placed on research. In this regard, some sample instructional activities would be:

1. Discuss what assessments and data might be collected in the students' schools, districts, and state to guide the proper implementation of the ISLLC *Standards*.
2. Design assessments to discern school and district cultures and a data analysis schema that would facilitate the determination of how best to align the planning of school leadership via the ISLLC *Standards* to that specific culture and situation.

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Critical Thinking: More Than Test Scores

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This article is for practicing or aspiring school administrators. The demand for excellence in public education has led to an emphasis on standardized test scores. This article explores the development of a professional enhancement program designed to prepare teachers to teach higher order thinking skills. Higher order thinking is the primary focus of many state and national tests that are mandated. Teachers play a crucial role in preparing students to be thinkers. Institutions of higher learning must evaluate their instructional practices to ensure that teachers are prepared to meet the new challenges of standardized testing. Additionally, principals, as instructional leaders, need to understand higher order thinking skills and how to assist teachers in their development of this teaching practice. The Gallagher Aschner model of questioning students is explored as a preliminary means to begin the development of higher order thinking skills. Suggestions for professional development around the use of this method are presented.

Problem

State standardized testing has been part of the effort to reform schools for over several decades (Airasian, 1987; Louis, Febey & Schroeder, 2005). Standards-based reform, including testing, has gained increasing support as a strategy to improve schooling among legislators, educators and the general public (Hanushek & Raymond, 2005; McNeil, 2000; Neal & Schanzenbach, 2010). The Center for Public Education (2006) noted that a high stakes test has consequences attached to the results. The test results often determine whether a student will be promoted to the next grade, graduates from high school or whether a student is admitted to college. Nearly every state has a high stakes testing program to evaluate instruction and student performance. While the approaches of states vary, all identify standards, align standards to the tests to gauge student progress, and hold schools accountable for the results. The cry for excellence has transformed state standardized testing into high stakes testing. The No Child Left Behind Act of 2001 increased the pressure on schools by extending federal accountability measures to all schools and districts that accept Title I dollars, which are intended to supplement the educational program for students from low-income families. Many warn of the pitfalls of high stakes testing (Cavanagh, 2012; Gerson, 2007; McNeil, 2000; Sawchuk, 2010).

The No Child Left Behind Act of 2001, Reading First Act and many state and federal education laws require teachers to use evidenced based research to guide instructional practice (Twyman & Sota, 2008). These requirements exist to reduce the tendency to follow fads or whims in educational strategies. It is sad irony that teachers relying on rote memorization and basic fact recall to improve student achievement on standardized tests are actually practicing the opposite of what research shows is good teaching. When educators and students spend an inordinate amount of time preparing for high stakes testing it leaves little time for focusing on the research based methods of teaching. As McComas and Abraham (2004) noted:

Study after study reveals that although educators know that the higher-order divergent questions hold significantly more power to engage the learner and ensure transfer of knowledge, we consistently retreat to using lower-order convergent style questions when teaching and testing students” (p.6)

State tests are increasingly emphasizing thinking and problem solving skills (Moore & Stanley, 2010). There are various labels for these new goals – creative thinking, reasoning, critical thinking, infusion, metacognition, and transfer, among others. Although there has long been a focus on higher order thinking skills (HOTS), few teachers have been prepared to teach and apply higher level thinking skills (Moore & Stanley, 2010). Hummel and Huitt (1994) note that many assumed that critical thinking would automatically develop as specific disciplines were taught.

Many teachers struggle with harnessing intelligence to master the increasingly complex standards with which students are challenged (Louis, Febey & Schroeder, 2005). In their nationwide survey Kiuahara, Graham, and Havekn (2009) found that 47% of teachers did not assign higher level writing assignments monthly. Instead these teachers, like most, focused on lower level short answer questions or worksheets. Kiuahara et al (2009) argued that writing five paragraph essays, persuasive essays, research papers, short stories, biographies, an autobiographies provided students with experience in higher order thinking about the content being studied. Rather than rely on research-based evidence, teachers fall back on their personal beliefs (Szymanski & Schaff, 2013). It is a simple but sad fact that too many public school districts in the United States have been stuck in the doldrums for many years. Despite some improvements in recent years, achievement levels, especially in urban districts, remain relatively low (Marsh, Kerr, Ikemoto, Darilek, Suttorp, Zimmer, & Barney, 2005). In addition, pressure is escalating for districts and schools to meet the federal goal of academic proficiency for all students as mandated by the federal No Child Left Behind Act (Marsh, et.al, 2005).

In assessing the quality of education in post-secondary institutions, Renaud and Murray (2007) found that a valid process indicator as it relates to gains in students’ critical thinking skills is frequency of higher-order questions.—They note that their findings demonstrate the need to include training in preparing higher-order questions as a part of faculty development. This may be the case also for teachers at the K-12 level. Hummell and Huitt (1994) noted that simply having teachers give essay-type or activity oriented assignments, even ones that tap into the higher cognitive domains, will not necessarily improve students’ higher order thinking skills. Hummell and Huitt further noted that the types of assessments used in all levels of education affect how students learn and should impact

how teachers teach. They conclude, “what you measure is what you get” (Hummell & Huitt, 1994,p.10).

What are Higher Order Thinking Skills (HOTS)?

Higher order and lower order thinking have been delineated by many researchers (Bloom, Englehart, Furst, Hill & Krathwohl, 1956; Dewey, 1993; Gallagher, 1998; King & Kitchener, 1994; Perry, 1970). Maier (1933, 1937) used the terms *reasoning* or *productive behavior* (higher order) in contrast with *learned behavior* or *reproductive thinking* (lower order). Newman (1990) after observing classrooms and interviewing teachers developed the distinction between lower and higher order thinking. He concluded that lower order thinking demands only routine or mechanical application of previously acquired information such as listing information previously memorized and inserting numbers into previously learned formulas. In contrast, he noted that higher order thinking, “challenges the student to interpret, analyze, or manipulate information” (p. 44).

Critical thinking is probably the most current label for what many call analytical reasoning, synthesis, problem-solving, or higher mental processes (Scriven & Paul, 1992). Lewis and Smith (1993) indicate that much of the confusion surrounding the definition of higher order thinking comes from the inconsistent use of the term critical thinking. They noted that “critical thinking has been assigned at least three distinct meanings: (a) critical thinking as problem solving, (b) critical thinking as evaluation or judgment, and (c) critical thinking as a combination of evaluation and problem solving” (p. 134). Lewis and Smith (1993) identified a series of domains of teaching embodied in what they designated as higher order thinking. Thinking associated with the analysis of arguments involves one domain. When this thinking is done in a reflective manner then it may be called critical thinking. The other domain is related to problem solving. Lewis and Smith also note that higher order thinking encompasses critical thinking, creative thinking, problem solving, and decision-making. They offer the following:

Higher order thinking occurs when a person takes new information and information stored in memory and interrelates and/or rearranges and extends this information to achieve a purpose or find possible answers in perplexing situations. (Lewis & Smith, 1993,p.136)

Magno (2010) identified critical thinking as comprised of five distinct factors: “inference, recognition of assumption, deduction, interpretation, and evaluation of arguments” (p. 140). These five factors map directly to Bloom’s Taxonomy of higher order thinking skills of analysis, synthesis, and evaluation. Thus critical thinking and higher order thinking, while not synonymous are closely related.

The Need

Levin (2004) suggested that in order to effectively prepare students to successfully engage with their environment, more so than to prepare them to master a standardized state test, we must improve students’ higher order thinking skills. The ability to engage in this type of thinking is much more important than scoring high on a standardized test Specifically, he

stated “much of what is done under NCLB is done to increase scores on stultified tests, not to engage students in a world which they will succeed” (p.ix). According to Cotton (1991), the ability to engage in careful, reflective thought has been viewed in various ways: as a fundamental characteristic of an educated person, as a requirement for responsible citizenship in a democratic society, and more recently, as an employability skill for an increasingly wide range of jobs. The techniques of critical thinking require students to engage in higher order thinking skills such as evaluate and analysis instead of simply recalling information (McComas & Abraham, 2004).

How can students be taught to think? A beginning step may be teachers leading the thinking through the use of questioning as Socrates modeled years ago (Vlastos, 1995). “The first step in asking better questions is to identify the types of questions we are currently asking, why we are asking them, and finally what techniques can we utilize to improve the questioning that occurs in our classrooms”(McComas & Abraham, 2004, p.6).

Louis, Febey and Schroeder (2005) noted development of external accountability systems was not a proven strategy for long-range improvement. They note several authors “have argued that the cost of accountability systems are too high and too weak to create real change in classrooms” (p. 177). Hummel and Huitt (1994) stated that good teaching and assessment is related to higher level thinking, but not enough educational resources and support are given to promote higher order thinking.

A Strategy to Assist

According to a major report (AACU, 2002) of the Association of American Colleges and Universities, many teachers have completed their pre-service collegiate experience without being taught to develop and use their own higher order thinking skills. Classes with critical thinking in the title are abundant. The report concluded that research shows many college graduates are falling short in reaching the goal of learning to think critically. Pre-service teacher training is void of the instructional methods necessary to create students who can think critically.

Minnich (2003) pointed out that if undergraduates are not learning to think, one major reason may be that most higher education institutions do not know how to systematically teach it. She argued that thinking can and should be taught more deliberately and intentionally in college courses. The AACU supports this finding, “To apply knowledge productively in field-based setting, all students should experience in-depth questioning from faculty, staff, and other mentors about their assumptions, analyses, conclusions, and actions” (2007, pp.36- 37). Convincing educators, including college professors to change methodology is not going to be an easy task (AACU, 2007)

In their nation-wide study of high school language arts, science, and social studies teachers’ writing practices, Kiuahara, Graham and Hawken (2009) found that less than 30% of the respondents assigned at least one higher level writing activity each week. In this same study, 71% of teachers reported receiving no formal preparation to teach writing and 52% indicated that they did not receive adequate preparation to teach writing in their content area . It should not be surprising that teachers who did not receive formal preparation to teach a skill are not teaching it. Likewise, to expect teachers to teach higher order thinking and use questioning to promote deep processing is unrealistic if they have not participated in this method of learning in their personal educational experience nor received formal training on

how to incorporate the method into their teaching. This problem points to the need for teacher education programs to practice and explicitly teach research-based methods of instruction. The lack of undergraduate experience in developing higher order thinking skills also highlights the need for teacher professional development in this area (AACU, 2002, 2007).

Questions as an Avenue to Higher Level Thinking

The oldest teaching tactic for fostering critical thinking dates back centuries to Socrates (Vlastos, 1995). In Socratic teaching the focus is on providing questions with questions, not answers (Garlikov, 2006). The philosophy of higher order thinking (HOT) extends from the time of Socrates, Plato and Aristotle. Socrates (Garlikov, 2006) challenge the “ loose” thinking of the youth of his day by asking such questions as: “What is the evidence?” and, “If this is true does it not follow that certain other matters are true?” (p.131).

Bloom’s Taxonomy has multiple levels of higher order thinking (Bloom et al., 1956). The Gallagher and Aschner program, however, has fewer levels and seems more user friendly (Gallaher & Aschner, 1963).

Gallagher and Aschner Classification Model

Gallagher and Aschner (1963) suggested in their research that there is a high correlation with question asking and the development of higher order thinking skills. They offer an instrument capable of accurately classifying the thought level required of the student by a teacher’s question. These researchers developed a four-level model designed to suggest the various kinds of questions teachers use in the classroom. The levels they identified are: (1) cognitive-memory (low order convergent) (2) convergence (high order convergent), (3) divergence (low order divergent), and (4) evaluative (high order divergent).

There are similarities between the Gallagher and Aschner (1963) model of questioning and the Bloom et al Taxonomy (1956). Bloom et al (1956) created a hierarchy of levels of thinking with remembering and recalling as the lowest level. Synthesis (creation) and evaluation were the highest levels of thinking based on the view that students begin with a basic understanding of the content (vocabulary, dates, formulas) then move to integrate this understanding with prior knowledge eventually creating new conceptualizations. The Gallagher and Aschner model evaluates teacher questions by determining if they are higher or lower level of thinking. In this model, convergent questions, which typically only have one correct answer, are considered a lower level than divergent questions, which have many possible answers and thus invite students to consider several aspects of the question involving more cognitive processes. The model also divides the convergent and divergent questions into levels similar to Bloom et al where the amount of cognitive processing involved determines whether the question is considered higher or lower level (Gallaher & Aschner, 1963).

The first level of the Gallagher and Aschner (1963) classification model is the cognitive-memory level, which is considered the lowest level of thought required of students. Questions at this level demand that students recall, identify-observe, define, name, designate or respond yes or no. Examples of questions that fall under this category may be: (a) Who is the main character in the story, (b) what is energy, and (c) who was the first character in the book to find the hidden cave.

The second level of the Gallagher and Aschner model (Gallagher & Aschner, 1963) questioning system was called *convergence*. This category included more broad type of questioning that required putting facts together in order to acquire the right answer; however, it is still considered a low level of the thought. This type calls for students to explain, state relationships, or compare and contrast. Examples of such questions are: (a) Why does the moon give off light, (b) how are dogs and cats alike, and (c) what does the mother do when she discovers her ring missing.

The third level of the Gallagher and Aschner (1963) questioning system is considered broad and is called *divergence*. Divergent questions allow for more than one answer and encourage creative and imaginative responses. Students are required to predict, hypothesize, infer, or reconstruct. Examples are: (a) If you ruled the world, what would you change, (b) what do you think the girl will do next, and (c) how would the U.S be different if it had lost the American Revolution.

The final category of the Gallagher and Aschner (1963) scheme is called *evaluative*. The evaluative question is classified as broad and requires the student to judge, value, choose or defend. These types of questions may include examples such as: (a) Is America the best country within to live and why, (b) why did you select this one as the correct one, and (c) Why do you agree or disagree with the decision of our country to enter the war.

Recommendation for the Practicing Principal

Many studies (Cawelti, 2000; Haberman, 1999; Jesse, Davis, & Pokorny, 2004; McGee, 2004) identify the principal's leadership as important to a school's high performance. They consistently point to the principal as a key player in sustaining the sense of success for all. Carter (2000) asserts that the presence of a strong principal who holds everyone to the highest standards is the most notable factor in creating a high performing school. Sparks (2004) supports this assertion "Skillful teaching in every classroom requires skillful leadership by principals. There are no substitutes" (p. 1).

As agents of change, principals have the opportunity and responsibility to support teachers' use of higher order thinking in their classrooms. Teachers are the direct influence on student behavior and test performance thus it is imperative that teachers understand and support the use of higher order thinking. "The teacher is the key figure when it comes to influencing student performance and therefore teacher professional development programmes should focus on improving teaching quality" (Kuijpers, Houtveen, & Wubbels, 2010, p. 1687). We recommend principals become familiar with the Gallagher and Aschner four types of questions then conduct professional development with teachers to share the understanding. Researchers have found that allowing teachers time to develop an understanding to a new method and to communicate with others regarding the change is a significant predictor of positive implementation (Buzhardt, Greenwood, Abbott, & Tapia, 2006).

It is crucial to provide time for professional learning communities to study and practice implementing higher order thinking strategies. This illustrates the school's commitment to improving the educational process. McComas and Abraham (2004) provide a questionnaire that learning communities of teachers could use to rate their own questioning behavior of students. Bringing awareness to the types of questions used is a first step in helping teachers become mindful of their teaching practice. Teachers could engage in peer observation and simply rate the questions as high/low, divergent/convergent for one another to

get a third party analysis. Teachers could compare initial observation scores with later observations to track implementation success. This process of focusing on the goal, establishing a baseline through the self-report questionnaire, observation and post observation reflection is based on the Kuijpers, et al (2010) two cyclic process for professional development.

This first cycle focuses on individual performance and understanding. The second cycle or tier focuses on the teachers as a team evaluating progress on implementation as a group, practicing the new skills, and comparing data on student achievement or teacher competencies. The two-cycle process requires a time commitment on the part of the teachers and the principal to be successful. Individual teachers should expect to conduct peer observations at least three times in one another's classroom and student achievement data will take at least one quarter to note any change. The process could even take an academic year as the students and teachers adjust to a new form of teaching practice. The extent to which the principal supports the process will clearly demonstrate the importance of implementing this new teaching strategy.

Following staff development, it is recommended that the principal make classroom visits where the focus is on the levels of questions that a teacher asks. The questions should be ranked and discussed with the teacher during the post-conference. While the inclusion of questions that elicit higher order thinking is the goal, principals and teachers need to understand that teachers cannot, nor should not ask only high level questions. Responses to lower level questions are used as a foundation for responses to higher-level questions. A thorough understanding needs to be established before students have the necessary skills to engage in higher level thinking about new content.

Conclusion

Questioning students is a tool that is frequently used by teachers both as an instructional strategy and a means of assessment. Too often teachers rely on short, recall, convergent questions when interacting with students (Kuihara, et al. 2009). Reasons behind this type of questioning may include inadequate understanding or experience regarding the higher order thinking questioning methods or a feeling of time pressure to keep on pace with curriculum expectations. Finally, a substantial reason for this type of questioning may be simply to prepare students for standardized tests, which ask similar types of questions. However, we are not educating students simply to perform well on tests. The goal of education is to develop the cognitive abilities of children to help them be successful in daily life. This requires higher order thinking skills. It is not enough to simply recall information.

“The most basic premise in the current thinking skills movement is the notion that students can learn to think better if schools concentrate on teaching them how to do so” (Presseisen, 1986, p.17). A general finding from research is that nearly all of the thinking skills programs and practices investigated have proven to make a positive difference in the achievement levels of students (Cotton, 1991). As the development of higher order thinking skills has been strongly correlated with improved standardized test performance (Levine, 1994; Uretsi, Goetz, & Bernal, 2002), principals and teachers can feel confident that research based evidence supports their efforts. The use of questioning to aid students in moving from simple lower level recall to high level evaluation and synthesis provides a structure to help

students beyond basic knowledge that is typically assessed on a standardized test to a deep conceptual understanding that allows for meaningful transfer.

Finally, the principal needs to make sure that student performance is assessed on a regular basis as a way of modifying and steering the higher-order thinking program. These formative assessments will provide important feedback for teachers as they support students' development of higher order thinking skills. The principal also needs to conduct formative assessments with the teachers to determine challenges that may exist that prevent the implementation of the new questioning methods.

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Student Perceptions of Digital Story Telling as a Learning-Tool for Educational Leaders

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A study regarding students' perceptions of digital storytelling as a learning tool was conducted in the fall of 2012. The population consisted of 12 students participating in an Administrative Theory course as part of their doctoral program in K-12 or higher education administration at a Carnegie Doctoral Research University in Georgia. During the eight-week course, students created digital stories that synthesized an auto-ethnography with leadership theory using Bolman and Deal's (2011) four-framework approach to leadership. This allowed students to demonstrate the practice of continual reflection and assessment, a commitment to technology, diversity, and in-depth understanding of the knowledge and skills required of educational leaders. The purpose of this non-experimental qualitative study was to examine student's perceptions of utilizing digital storytelling in educational leadership coursework. The research question was: What are students' perceptions of digital storytelling as a tool for learning in Educational Leadership coursework? Findings are arranged by the 4 themes which emerged from the analysis of the data; assignment components, learning, identity development, and class cohesion.

Introduction

Reflective learning has been well established for developing critical thinking, self-awareness, and analytical skills (Castelli, 2011; Jordi, 2011; Sergiovanni, 2009). According to Castelli (2011), the reflective/transformational learner must possess critical and reflective thinking skills that interact to enhance awareness, which in turn leads to meaning and purpose in the learning experience. Jordi (2011) further describes the process of reflective learning when he cautions the learner to balance analytical and cognitive skills with experiential sensing to elevate awareness and maximize learning outcomes. This work built on Fenwick's (2001) research, which asserts that individuals can learn from distinct concrete experiences through a process of reflection that is undertaken separate from the experience. During Fall 2012, 12 students in a doctoral level administrative theory course completed a digital story focused on reflective learning. Initially the students conducted an autoethnography and examined biological, cultural, historical, and political contributions to their personal development. This initial reflection was conducted to develop a better understanding of self. During the next part of the assignment they examined their beliefs about leadership using Bolman and Deal's four framework approach using the structural, human resource, political, and symbolic frames. By connecting the leadership theory with their own personal beliefs, the students synthesized

their personal experiences and theoretical underpinnings that they identified in their leadership roles. As a culminating activity students completed a three to five page reflection about their experiences. The purpose of this non-experimental qualitative study is to examine student's perceptions of utilizing digital storytelling in educational leadership coursework. In addition, this research adds to the limited research on digital storytelling in educational leadership preparation.

Review of the Literature

Autoethnography and Digital Storytelling

Ellis et al. (2011) described the process of autoethnography as a combination of autobiography and ethnography. The combination of individual experience with cultural experience is crucial in the process phase of autoethnography, as the personal perception shapes the way that a particular culture is viewed. The authors also state that the process of autoethnography records epiphanies of a particular person in a cultural environment or that were possible because of the person's cultural identity. These autoethnographies can then be shared with others in similar situations seeking similar outcomes. Wall (2006) elaborated on the process of autoethnography by describing its roots in postmodern, nontraditional, nonlinear narrative syntaxes that create a space for new expressions of voice from marginalized groups. Preston (2011) further described the function of an autoethnography with regard to the practice of reflexivity, or constructive personal reflection for the purpose of self-development, as being a personalized research methodology that allows for descriptions of social phenomena from a first person standpoint. Drechsler, Sharp, Riera, and Jones (2012) discussed a similar process by which autoethnography is examined as an underlying mechanism of the research process by which a clearer understanding of personal identity development can be reached.

Ellis et al. (2011) utilized comparison to describe the product of autoethnography by stating that it is engaging in the same way that an autobiography is engaging. The author of the autoethnography is expected to use typical literary devices to convey cultural experiences encountered in such a way that meaningful qualitative analysis takes place. One of the major benefits of autoethnographic research, the authors state, is a wider potential audience as consumers of the research due to the greater accessibility of autoethnographic frameworks to the general population. In addition, it follows that digitally produced narratives may be even easier to reproduce and disseminate to a wide audience. Digital storytelling, then, can be utilized to convey autoethnographic experiences using new media and technologies that can enhance the communicability of information.

Autoethnographies have been criticized, however, for being too subjective and non-empirical in nature. Hughes, Pennington, and Makris (2012) detail the origins of autoethnography, which first appeared in academic literature in 1962 with the publication of *Facing Mt. Kenya* by Jomo Kenyatta. Kenyatta's work was criticized for containing only positive perspectives of the Kikuyu ethnic group, as well as a lack of critique. Specifically, critics focused on "limited triangulation of sources, limited disconfirming sources of evidence, and irresponsible interweaving of narrative and scientific inquiry" (p. 211).

Dauphinee (2010) echoed many of these concerns recently with regard to research in international relations, and emphasized the need for a balance between storytelling and

scholarship as a researcher engages in the process of autoethnography. She, however, confirms the importance of autoethnography as a research methodology by stating that it is an approach that allows for the researcher to step out of the role of impartial observer and become a more values-based, motive-driven agent in the research process. Hughes et al. (2012) go on to describe more positive views of autoethnography that have developed since 1962. For example, autoethnography has come to be viewed as an outlet for marginalized persons and groups, in spite of its potential drawbacks as a traditional research methodology. Perhaps the key shift in autoethnography occurred when social scientists began to view the methodology as an opportunity for social sciences to offer more limited, focused descriptions of phenomena that are intentionally values-based, as opposed to taking the traditional scientific approach of a broad explanation that is scientifically sterile. In recent years, researchers have begun to examine autoethnographies that are told in the form of digital stories. Ellis, Adams, and Bochner (2011) describe autoethnography as a form of research that uses personal narratives to describe cultural events and dynamics. In other words, the cultural is viewed through the lens of the personal. Digital storytelling is the process by which a person uses digital media to convey a personal narrative that describes a cultural experience (Ellingson & Ellis, 2008).

Digital Storytelling

Digital storytelling is an innovative, technology-based method by which 21st century students utilize technologically advanced resources to produce meaningful stories and presentations that in turn allow for an enriched co-construction of knowledge. According to Yang and Wu (2012), the widespread availability of affordable, easy-to-use digital recording technology has expanded the ways in which traditional storytelling can be done. Further, when storytelling is carried out by these means, students are able to thoughtfully produce and manage projects to enhance their co-learning. Digital storytelling can also be used to enhance opportunities for collaboration between students. Such collaboration contributes to the co-constructive synthesis of knowledge.

Xu, Park, and Baek (2011) described three major elements of digital storytelling: flexibility, universality, and interactivity with regard to community formation. Flexibility in digital storytelling means that stories can proceed in a non-linear fashion, allowing the storyteller a wide range of communicative options framed in a technologically based pedagogy. Universality references the ability of a large population of persons to utilize digital storytelling as a result of the rapid and widespread dissemination of recording technologies that have become available in the first decade of the 21st century. Lastly, interactivity with regard to community formation describes the process by which digital stories can be created with available technologies, often through the convenient exchange of material and information in such a way that facilitates co-construction of knowledge through various members of the learning community. Given the potential for supporting learning outcomes, digital stories have begun to be used in various contexts.

Digital Storytelling in Other Contexts

Digital storytelling has been utilized in a variety of contexts outside of higher education including K-8 education (Ohler, 2006; Davis, 2004). Digital storytelling has also been used in

high schools with students who were learning English, to explore community and personal identity in a particular geographical setting, in multimodal composing, and to teach writing (Yang & Wu, 2012; Wake, 2012; Yang, 2012; Xu, Park, & Baek, 2011). Digital storytelling has also been used in nurse education where digital stories were created by patients to detail their experiences with medical treatment and staff as well as in internships and other experiential learning settings (Christiansen, 2010; Mirrer, 2010). These studies suggest that educators are beginning to combine innovative creative procedures with advancing technology to create digital stories in contexts outside higher education. In the next section we explore how digital storytelling has been applied in higher education settings.

Digital Storytelling in Higher Education

In addition to other contexts, digital storytelling has been utilized in higher education as well (Center for Digital Storytelling, 2013). Examples can be seen in Swathmore College's Information Technology Services efforts to create a community of practice in digital storytelling and the efforts of Ohio State University's Digital Storytelling Leadership Team. In addition, researchers have described the benefits of digital storytelling for undergraduate medical students and in teacher education (Sandars & Murray, 2009; Tendero, 2006). However, research in educational leadership settings is sparse. One study conducted utilizing digital storytelling in educational leadership coursework was conducted by Guajardo, Oliver, Rodriguez, Valadez, Cantu, and Guajardo (2011). These authors suggested that digital storytelling can be used to create, analyze, and synthesize data. The researchers go on to propose the process of digital storytelling addressed the problem of educational leaders not engaging in inner, personal reflection, by providing a method by which they may undertake these internal activities in a definitive and meaningful way. Furthermore, the authors proposed that digital storytelling is a powerful tool by which students in educational leadership settings can become more fully developed as they prepare to take leading roles in educational contexts.

Digital storytelling has been used to engage and stimulate reflective learning in a variety of contexts but there is little research in educational leadership preparation. Therefore, the purpose of this study is to examine the doctoral student's perceptions of digital storytelling as a pedagogical tool for engaging in meaningful self-reflection and understanding of administrative theories. The research question was: What are students' perceptions of digital storytelling as a tool for learning in Educational Leadership coursework?

Methodology

Population

A study regarding students' perceptions of digital storytelling as a learning tool was conducted during Fall 2012. The population consisted of 12 students participating in an Administrative Theory course as part of their doctoral program in K-12 or higher education administration at a Carnegie Doctoral Research University in Georgia. Students were contacted after the course ended to request access to their reflections for this study. Eleven chose to participate in the study. Among the participants, eight were female and three were male. The racial make-up of the group included six white and five black students. The

respondents were between the ages of 29 and 40 with a mean of 34. Ten of the students worked in K-12 organizations and one worked in a higher education setting.

Assignment

During an eight-week Administrative Theory course, students demonstrated the knowledge, skills, and reflective practice required for educational leaders by creating a digital story. Through this medium, students developed an autoethnography and synthesized it with leadership theory using Bolman and Deal's (2011) four framework approach to leadership (Figure 1).

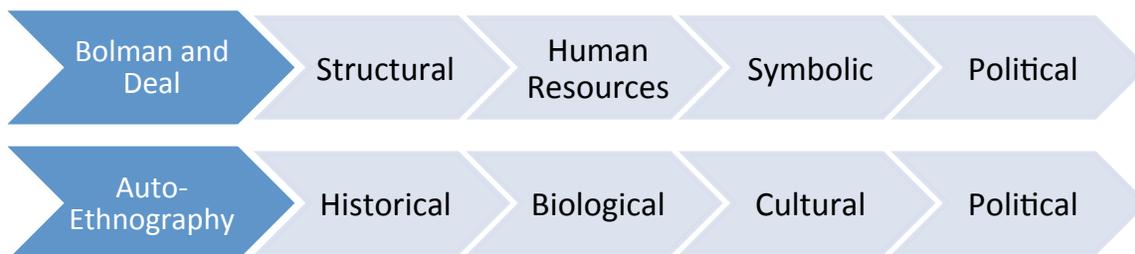


Figure 1: These two frames of reference were used for reflection and synthesis of personal and professional beliefs and values using a digital story.

Bolman and Deal's (2011) framework was selected based on its wide use in educational leadership preparation and its usefulness for understanding how leaders thinking relates to managerial and leadership effectiveness. This multi-frame theory of leadership assumes that four frames; structural, human resources, symbolic, and political represent the ways that leaders perceive organizational situations, how these situations are defined, and how they can be led most effectively.

To guide students in the development of their autoethnography, they completed four reflections guided by prompting questions as they examined micro and macro historical events, their biology, culture, and political events that have contributed to development of self. Utilizing text, online resources, and classroom discussions, the students also examined leadership theories that have informed school leaders. Through this work they considered how each of the four components of the autoethnography informed their educational story and values, and how their beliefs aligned with various educational leadership theories. Traditionally an assignment like this may have been completed in a written form. However, a digital story was selected because it had been identified as a multimedia technology tool for collecting, creating, analyzing, and combining visual images with written text and engaging students in the content. Due to the limited time frame to complete the assignment, class time focused on the autoethnography and administrative theory. Students utilized iMovie, Windows Movie Maker, and Camtasia to develop their stories outside of class. They were left to their own resources to learn the technology at home and it was discussed in a limited fashion during class time. Figure 2 outlines the steps for developing the digital story.

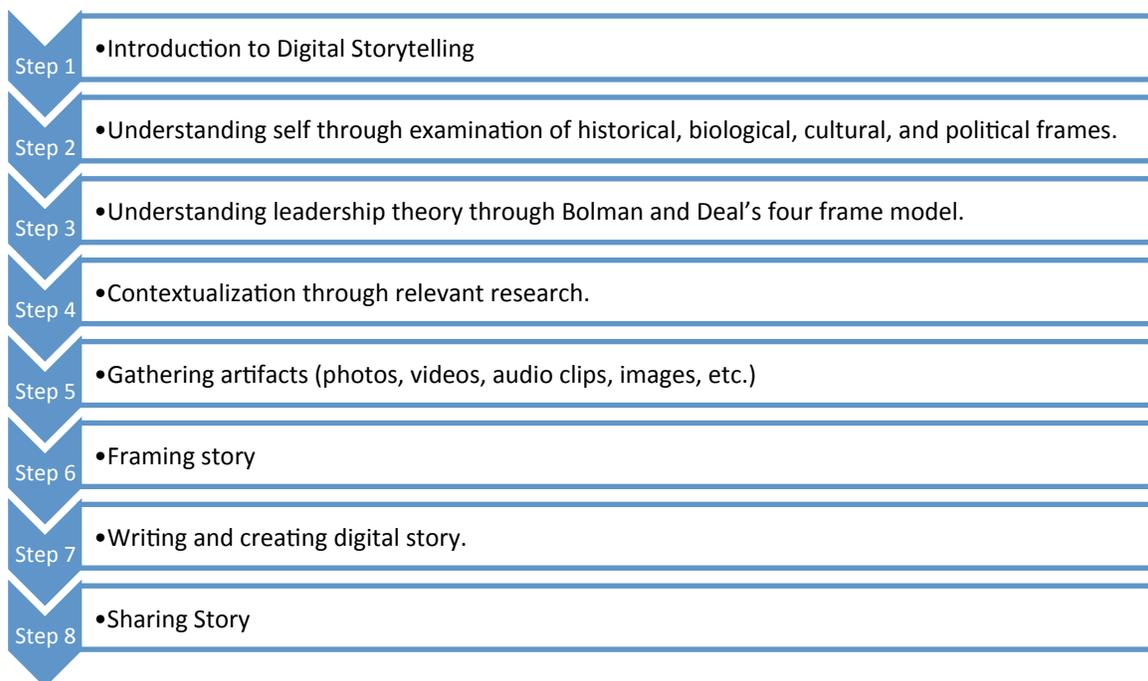


Figure 2: Steps for completing the digital story

As a culminating activity, students shared the digital story with each other, participated in a discussion, and completed a written reflection about the experience of creating the digital story.

Data collection

Archival data in the form of student reflections were collected as part of the normal curriculum for the course. Students were informed that there were no right or wrong answers and the purpose of these reflections was to gain valuable feedback regarding the efficacy of this assignment. For this assignment students received credit for completing the reflection. After the conclusion of the course, IRB compliance forms were completed and another faculty member distributed consent forms to students. Demographic questions regarding age, gender, race, and work setting were asked using Qualtrics' survey software after the course ended.

Procedures

This was a non-experimental qualitative study. Since all research questions, methodologies, conceptual frameworks, and fieldwork parameters are context specific, Patton (2002) recommends choosing “the right tool for the right job.” In this case, an inductive analytical approach was utilized for analyzing archival data from written reflections (Thomas, 2006). The purpose for using the inductive approach was to condense the raw text data into a brief summary format, to establish clear links between the research objectives and the summary findings, and to develop a theory about the underlying structure of experiences. This approach is evident in several types of qualitative data analyses including grounded theory (Strauss & Corbin, 2007; Pope, Ziebland, & Mays, 2000). During the First Cycle coding process words and sentences were identified that had meanings to the authors. Based on this examination

data was summarized and condensed. During a Second Cycle coding process codes were reconfigured and refined to capture the primary content and essence of the data (Saldana, 2009). During coding and recoding, categories and subcategories became more refined. Eventually, a coding framework was developed (Figure 3). Themes that were identified were: assignment components, learning, identity development, and class cohesion. Additional levels of subcategories under assignment components included benefits, challenges, and suggestions for improvement. Subcategories for learning included technology, higher order thinking, personal growth, and leadership theory. Under identity development subcategories include: biology, culture, history and politics. Class cohesion subcategories included diversity, adversity, and other similarities. Descriptive statistics were used for demographic questions.

Limitations

Qualitative researchers have wrestled with charges that it is too easy for the prejudices and attitudes of the researcher to bias the data (Bogdan & Bilken, 1982). As the instructor of the course and the creator of the assignment, the researcher acknowledges the potential for bias in support of this assignment. Therefore, the researcher confronted his own opinions and prejudices when making inferences and interpretations. To address this concern, the subjects and a second author reviewed data and interpretations. Care was taken in analyzing data to ensure validity and reliability of the data. Respondent validation, which represents one kind of triangulation (Hammersley & Atkinson, 1993), was used to validate the data. This also involved checking inferences drawn from the data.

Another consideration in collecting and analyzing this data was the degree to which students were forthcoming in their reflections. Understanding that the professor-doctoral student relationship may last beyond one course, the faculty member was very open about his own experiences and worked to establish a safe environment where others would be willing to share. It is assumed that gave their honest opinions of the assignment and accurately reported their past experiences.

Furthermore, this is a small sample of doctoral level educational leadership students who gave their opinions in a specific place and time. Therefore, findings from the study may not be generalizable to other settings. The context and the participants for this study were limited to those students who had participated in a doctoral level educational leadership course.

Findings

The research question was: What are students' perceptions of digital storytelling as a tool for learning in Educational Leadership coursework? Findings were arranged by the 4 themes which emerged from the analysis of the data; assignment components, learning, identity development, and class cohesion.

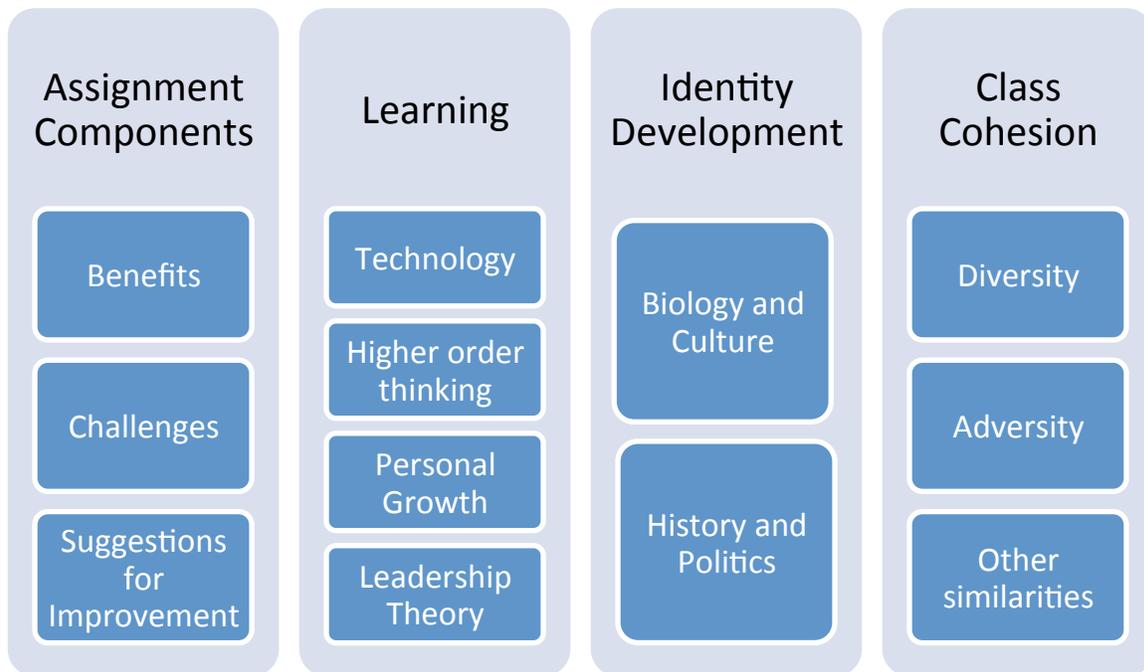


Figure 3: Thematic Framework for this study.

Comments about the assignment components were configured based on the students' discussion of the assignment itself in their reflections. Perceived benefits and challenges for completing the assignment along with suggestions for improvement are included in this section.

The theme "student learning" included discussion related directly to the learning that occurred as a result of the completion of the assignment from the students' perspective. These included learning about technology, higher order thinking, and personal growth. Due to the large quantity and quality of statements made about identity development, this was labeled as a separate theme.

Identity development was mentioned frequently by each of the students. Reconnecting with artifacts from their personal lives and reflecting on how they came to their present beliefs had a strong impact. Introspection was at the heart of this component. In addition, external relationships and class cohesion were also strengthened.

Class cohesion was determined to be the fourth and final theme for this study. By sharing personal information about their development and beliefs, it appears that cohort members came to a better understanding and appreciation of each other. These findings are discussed in more depth in the following sections.

Assignment Components

In the area of classroom assignments students made specific statements regarding the assignment components. For example, some students noted that it was rewarding, challenging, or even that they had mixed feelings about it. They also noted specific benefits, challenges, and suggestions for improvement.

Benefits

In their reflections students made statements about a variety of benefits from the assignment. One of the primary benefits that students noted was the opportunity for reflection. Specifically, they discussed benefits of taking time to reflect on their past experiences and connect them to their current beliefs about school leadership. One student commented, “It was an interesting and extremely detailed experience, working on composing a digital story to communicate an autoethnography, while also identifying connections between one’s life story and the Bolman/Deal Model. The opportunity for reflection to occur as a result of this assignment was infinite.” This was reiterated by another who commented, “This digital storytelling experience was wonderful, because it allowed me the opportunity to reflect on the experiences in my life that influence the way I think and behave.”

One student discussed how elements specific to a digital format such as music was beneficial:

Although technology is not an area of strength of mine, it gives me a sense of accomplishment that I was able to complete a project of this nature. Being able to add music to help set the tone and focus of the video was also an added bonus and helped tell the story when words simply could not express my feelings. I think it is important for us to step back and take a look at where we have come from, where we are currently, and where we plan on going. This project has made us do those things. This digital story has helped me learn about how the experiences that I have had have shaped me into the person I am now in a way that a written assignment could not.

Two selected quotes that highlighted students’ thoughts on the assignment summed up the feedback: “This assignment served as the bridge that connects my personal life to my professional career as a leader. Synthesis of these two worlds is powerful,” and “In truth, this was one of the best assignments that I have ever done. It made me think introspectively, analyze, synthesize, evaluate, and create.” Although students responded positively to the assignment itself, they also noted challenges related to the assignment.

Challenges

The challenges which students reported primarily related to sharing personal information and using technology to create the digital story. As school leaders, privacy and sharing personal information within the cohort brought discomfort and deep consideration about the materials that they wished to share. For example;

The digital story assignment was a difficult assignment for me to complete for many reasons. I generally consider myself to be an introvert. As a public figure I prefer to keep my personal life separated from my professional. This involves me portraying a persona in which I do not divulge very much about myself. This assignment required me to open up about who I am and what experiences have helped mold me into the person I am.

Another student who had overcome multiple challenges wrote;

The theme and purpose of the story was difficult to identify without having to address feelings of potential humility and/or embarrassment. Pictures, video clips, images, potential talking points and dialogue detailing my personal life and background were meticulously mulled and edited to be able to relate a personal life to the Bolman/Deal Model while also not providing too much personal information to the other students.

Taken in context, these challenges were not seen as negative, but rather as stretching personal boundaries. For example, “This project did help me to step out of my comfort zone. It also gave an interesting way for us to gain information about our classmates, as well as, the content of the class.” These statements brought forward student concerns about sharing personal information and touched on the depth of the assignment.

Some students also discussed technical challenges related to the assignment. For example, “This assignment challenged me to become more proficient in the use of technology as well as different software programs and applications.” The challenges students mentioned most frequently involved sharing personal information and utilizing new technology. These also led to suggestions for improvement and played an important part in the growth of the students.

Suggestions for Improvement of Assignment

Due to the limited time for completing the assignment, meeting time focused on the course content and discussions regarding the autoethnography. Students independently worked on this assignment outside of the course and utilized technologies which they had available. Due to this design, a number of recommendations for improving the assignment also evolved from the reflections. The statement “I feel that it would have been easier if we would have had some type of tutorial on how to use the needed software” reflected the feelings of a few.

In general, participants noted a few refinements that could improve the assignment. These included:

- Detailed resource sheet
- Tutorials
- Specific assignment parameters (time limit, file size, types of media)
- A more content specific rubric
- Guest speaker to demonstrate resources to help the students to identify the most effective for their individual digital storytelling needs.

Four of these five items were related to the technology use and one referred to specific criteria on the rubric that was used to grade the assignment. The next theme that evolved from the data was student learning.

Learning

Learning statements covered topics included higher order thinking, technology, and personal growth. Concepts related to higher order thinking such as synthesis and evaluation were frequently mentioned in the students’ reflections. What follows are samples of the participants responses about higher order thinking that occurred as a result of this assignment:

Creating an autoethnography involves the highest levels of Bloom's Taxonomy. This project involved synthesis of ideas, analyzing how the Bolman and Deal model fit in, evaluating which parts of my story should be used, and creating the project in a digital format. Even though this was one of the most challenging projects I have had to do, it was definitely a worthwhile learning experience.

I spent a few days just reflecting. This was difficult for me because I really wanted to get started, but this was not the type of project to attack without a thorough analysis of the Bolman and Deal model and how to view my life through the lens of each area.

Thinking about the questions that were included with the assignment also were very thought provoking and made me examine how I really became the leader that I am today. I don't know if I have ever stopped long enough to analyze my life and what has shaped me to lead others in the manner that I do.

By working at this level of thinking and connecting personal experiences and beliefs to course content students recognized that they would have a personal connection to the content and would be able to retain information for an extended period of time. This is evidenced in the following statement, "This has been an extremely informative course for me. I was able to see my strengths and where I still need more instruction and improvement. I feel instant growth from this experience, and I will remember this feeling when I move into the next semester and future courses." Analysis of their statements also suggested learning related to the technology they utilized.

In addition to learning more about themselves and about the content of the course, students discussed learning new technologies. Some students shared that they found using technology easy and were able to complete the program project without difficulty. One statement to support this was:

I have not had a lot of experience with Windows Movie Maker. The Digital Story was actually the first assignment that has caused me to utilize a resource such as this. I was surprised at how easy this program was to use for this assignment. Once I figured out the basics, the project was fairly simple to develop.

However, others noted challenges that they were able to overcome by using various resources such as the Internet, family members, friends from church, and coworkers. This statement highlighted the feelings of those challenged by technology, "I struggled with this assignment from a technology standpoint. Learning new technology can be a challenge for me." Another noted, "Because I am not familiar with Windows Movie Maker or any video making software, I was excited to create the video, but I felt limited, anxious, and frustrated in what I could do to enhance the quality of the work." Although some faced challenges, they did learn to use the technology. "I had to teach myself a lot of different technology to be able to complete this project," one student wrote. This point was shared by a number of students. Evidence of the quality of their work supported the point that they were able to overcome these difficulties and learn to use the technologies they had available.

An additional point that was worthy of notice was that two students made the connection to how this could be used in his school. The first comment related to technology use in the classroom:

During the process I gained a better appreciation for the applicability of technology in the classroom. This assignment spurred creative ideas that I can share with my staff for integrating more engaging technology in the classroom. I can see teachers using this technology to create very engaging project based lessons for their students.

The second comment related to the potential for professional development of teachers. He noted, “This style of assignment could be beneficial to utilize at the school level with staff members as a reflection tool for professional growth.”

In addition to the technology, students mentioned the Bolman and Deal framework as an additional part of their learning. For example, “Thinking about leadership qualities in each of the four windows of the framework was challenging. Also, thinking about the theorists that related the most to me and my style of leadership was a very introspective part of the assignment.” Another noted, “The frameworks of Bolman and Deal played an important role in providing theories to help demonstrate why we behave in the manners in which we do.” It was clear that using this framework gave students a clear method for organizing the various administrative theories and theorist that were covered in the course. Beyond the course content, analysis of the data also suggested that revisiting their past led to students thinking deeply about how their personal identity had developed.

Identity Development

In their reflections students discussed specific factors that helped develop their current identity based on their biology, culture, history, and politics.

Biology and Culture

When examining the biological contributions to the self, students compared pictures of themselves from their youth to the present and how their physical makeup and genetic composition impacted who they are today. They also discussed how their prominent characteristics had been inherited from their mother or father and the impact that this would have on them. For example:

I could see similarities between by parents and me. I had to work with the few pictures sent to me by my father, but as I age, I see more of my mother’s features emerging: red skin, high cheek bones, and almond shaped eyes. Biology is an amazing aspect of who we are, how we see ourselves, and as important, how others see us.

In conjunction with an examination of the biological self, they examined the cultural components of their upbringing. This included discussion of the values, beliefs and practices that they hold dear. They also discussed how these values influenced decisions they made in their daily lives and in their professional practice. Furthermore, they mentioned contextual influences that have helped mold their cultural identity. Finally, they discussed what diversity

meant to them and how it had been beneficial at times and had created challenges during other times. Three selected statements highlight the influence of culture. First, one student wrote, “As an African American female, there are many challenges that I face daily. We, in comparison to our male counterparts, are considered to overwhelmingly be the educated and professional presence in our families.” A second asserted:

Many of the friends I had in high school that were males did not finish high school; of those that did complete high school, most did not complete college; and of those that did complete college, they did become successful professionals, but that percentage is quite low.

A third reflected:

Both of my parents were people of color who lived in a country that, at the time, did not want to recognize them as contributing Americans. Historically, they cherished the same values: land and home ownership, dignity, and respect. They were raised to work hard and ultimately reap rewards, and educate their children while teaching them an appreciation for heritage and culture. Historically, they believed in the American Dream, even if they were not who our country’s forefathers had envisioned.

The experiences that students attributed to their race and cultural backgrounds clearly shaped their beliefs and how they perceived their roles within their school system.

History and Politics

Historical experiences that were discussed included both macro and micro events. Macro events included the destruction of the World Trade Center in New York and the fall of the Berlin Wall. Micro events included participation in sports teams, prior work experiences, missionary work, friendships, church support, and adverse experiences such as car accidents and the death of loved ones (sometimes an early age). As part of the examination of the historical contributions students also conducted a generational analysis to see what brought them to where they are today personally, professionally, and academically. As such, students discussed many of the factors, which brought them to this moment in time and how it influenced their beliefs and behaviors. For example, “Having two parents at home, unlike many others within my ethnic community, gave me a different perspective. I was able to see and differentiate between gender roles and responsibilities.” Additional examples of statements relating to history follow:

- My experience working on a horse farm taught me a great deal about how hard work pays off. Like teaching, you learn while working on a farm that you must constantly adapt and be flexible because you don’t know what the new day will bring.
- Becoming a “big sister” heightened my sense of responsibility because as the oldest child, not only was I was accountable for my own safety and well being in a large, urban environment, but also that of my sister and brother. Similarly, as I lead

adults, either personally or professionally, I feel somewhat responsible for their safety and welfare.

As a component of the assignment, it is not surprising that students discussed how historical events contributed to how they perceive the world around them.

When examining political contributions to the self, students explored and described the construction of their values and beliefs and the impact these had on their views on power and professional relationships. In addition, some discussed their gender identity and racial background and how they were able to utilize these characteristics to influence others. In reference to a younger brother that was much larger than she was, one student commented, "I have always been the dominating figure in our relationship although he is twice my size. Dealing with him is part of the reason why I am not currently intimidated by my much larger students." Students also spoke extensively about the role of relationships in their lives and how they use these relationships to benefit themselves and to benefit others. This came through strongly as they described overcoming challenges and addressing conflict in their lives. It also came through in their description of how they used their leadership roles to help students. In reference to the obligation they felt as a result of their upbringing and culture, one student noted,

I have a responsibility to share my knowledge and experiences with the students so they can make better decisions. I have realistic conversations with my young men and women that concern the importance of education and applying the knowledge they gain in school to establish themselves as adults and as professionals.

One of the pervasive themes that emerged was the influence of significant adults that contributed to their development. These influencers included blood relatives such as grandparents, parents, cousins, aunts, uncles, and siblings. For example:

My grandmother was the mother to seven children and she really did help to mold me into an educator by making me watch after the younger grandchildren. She always told me to show the younger ones how to do things, but not to do things for them.

Other significant adults included coaches and teachers. Discussion of gender roles and how they evolved from being raised by grandparents, single fathers, single mothers, and in two parent homes was also important in their development. A number of students also discussed how caring for younger siblings that had an impact on their behavior as school leaders.

Finally they wrote about how they dealt with conflict as a result of some of their historical experiences. In two cases, students recognized that this was an area of weakness for them and something they had not thought much about. In hindsight, both stated that politics had influenced their behavior unknowingly.

Class Cohesion

Another consequence of the assignment was improved cohesion and understanding within this cohort group. This was the second course that students had taken together, however overwhelmingly the data showed that sharing their assignments with others led to a deeper

understanding and respect for each other. Topics that were frequently addressed included similarities such as overcoming adversity and diversity (understanding new perspectives), and other similarities. One reflected,

It amazes me how technology can be used as a form of expression and sharing. The lesson taken from viewing the digital stories of my cohort members is very simple. Although we all come from different walks of life, we still have some of the same values that were instilled in us by our family members. The words hard work, teamwork, and determination were words heard in many presentations.

Additional statements that highlight some of the similarities and differences that students noted follow:

I am glad that we had this class early on in our doctoral program because I feel much closer to my classmates after we have shared such personal things with one another.

The Digital Stories have helped me to get to know my classmates on a much deeper level. I have such admiration and respect for all of them. I find it interesting that we have all had so many obstacles to overcome, but we all have persevered. Some of my classmates have had some tragic events happen and have been strong enough to pick themselves up and continue moving forward when many other people would not have been able to do so.

I am also grateful that we had to watch each other's autoethnography because I now feel that I know the members of my cohort so much better. I can appreciate where each person has come from and our diversity of styles. It helps to know how each of us has evolved over time as we are all in this doctoral journey together.

The statement that summed up the feelings from the group was "We each have a very special story to be told which includes triumph, adversity, challenge, triumph, rejection, and finally acceptance."

Summary

This study was guided by the research question: What are students' perceptions of digital storytelling as a tool for learning in Educational Leadership coursework? Analysis of student reflections revealed four themes: feelings about the assignment components, learning, identity development, and class cohesion. How these themes evolved from students' perceptions of the assignment relate to literature in this area are discussed in the following section.

Discussion

The findings of this study support research on autoethnographies and digital story usage in educational leadership and in other contexts. From the students' perspective, digital storytelling brought them on a journey of reflection and self-discovery as they told their personal story. This aligns with the work of Guajardo, Oliver, Rodriguez, Valadez, Cantu, and

Guajardo (2011) on digital storytelling in an educational leadership instructional setting. Students' comments about constructing a personal reflection and their personal identity development also support with the assertions from Preston (2011) and Drechsler, Sharp, Riera, and Jones (2012). In addition, students indicated that they had a greater understanding of their cohort members. This supports Xu, Park, and Baek (2011) who stated that as students co-construct knowledge in a learning community, they achieved greater understanding of themselves, the course content, and of each other. Finally, these findings support research suggesting that the wide range of communicative options offered by digital storytelling is beneficial.

Although this was a small sample and not generalizable to other contexts, this research adds to the literature on autoethnographies and technologically based pedagogy such as digital stories in educational leadership preparation.

Conclusions

While this study was limited to 11 students in two sections of a doctoral level class, results suggest that this project may be useful as an authentic learning experience for students engaged in educational leadership coursework. In addition, the results of the qualitative inductive analysis have helped us better understand that students in this course valued the opportunity to reflect on how their belief system was developed and synthesize it with new knowledge about administrative theories. The findings of this study may help educational leadership faculty to utilize technologically suffused pedagogy to meet course objectives by revealing the perceptions of the students about the assignment in conjunction with suggestions for improving the assignment. In addition, the challenges, benefits, and suggestions for improvement add to the literature base on educational leadership preparation.

Recommendations

1. Based on this study we make the following recommendations:
2. Additional research is needed on the use of autoethnographies and digital storytelling for learning. Differences in learning patterns based on the comfort level with technology, academic program (i.e., Master's, Specialist, Doctoral), or course delivery (face to face, blended, or fully online) should be explored.
3. Qualitative research on students' retention of leadership theories would be beneficial.
4. Quantitative longitudinal analysis on ways to measure retention of material using this practice would be beneficial.
5. Faculty should explore the possibility of integrating a similar assignment into their teaching as they advance practices of teaching and learning. Instruction regarding technology that can be used to complete the assignment should be included.
6. Future research should evaluate the impact this experience has on practicing leaders' school based activity regarding technology integration.

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How Faculty Supervise and Mentor Pre-service Teachers: Implications for Principal Supervision of Novice Teachers

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The intent of the study was to ascertain university faculties' perceptions, through semi-structured interviews, about supervision and mentoring of student teachers. Findings indicated faculty supervisors' perceived feedback to student teachers about student engagement as important. Additionally, supervisors believed building trust with student teachers was instrumental to the supervisory relationship, yet they believed they did little to intrinsically motivate student teachers. Supervisors mostly used two steps of the clinical supervision model, namely extended observations and post-observation conferences. Finally, faculty supervisors described a directive-control approach when remediating ineffective student teachers and reinforced the idea that effective teacher supervision is a collaborative effort. Implications for principals' supervision of novice teachers are included.

Introduction

Researchers have linked effective teaching to increased student achievement (Ball & Forzani, 2009; Chen, Mason, Staniszewski, Upton, & Valley, 2012; Stronge & Hindman, 2003) and argued teaching is a systematic sequence of events with clear objectives (Marzano, 2007; Watkins, 2005). As with any profession, teachers require opportunities for growth if they are expected to get better at their trade, and teachers expect principals to serve as instructional leaders and provide feedback about their efforts in classrooms (Ovando, 2005; Zepeda, 2007). Many argue instructional leadership is the most important duty of principals because teachers need constructive feedback about their strengths and plans for remediation to alleviate weaknesses (Range, Scherz, Holt, & Young, 2011; Sullivan & Glanz, 2000).

The first time teachers encounter supervision, similar to the kind they receive from principals, is during the semester in which they student teach (Caires & Almeida, 2007; Ediger, 2009). Student teachers are usually supervised by two personnel, namely faculty supervisors and mentor teachers, who use professional teaching standards as grading criteria. Faculty supervisors use approaches to supervision discussed within the educational leadership literature, like clinical supervision, with the most important supervisory step being the post-observation conference. Research has not attempted to compare and contrast the perceptions of faculty supervisors about how they supervise student teachers with the literature concerning principals' formative supervision of practicing teachers. Similar to practicing principals,

faculty supervisors are expected to build the capacity of pre-service teachers. As a result, the purpose of this qualitative study was to interview faculty supervisors about how they supervise student teachers and link those findings to the literature concerning effective principal supervision for novice teachers.

Instructional Supervision

Instructional leadership occurs when principals monitor teachers by formally and informally visiting classrooms collecting data about their performance and then meet with teachers to discuss data and align identified teacher wants or needs to professional development (DiPaola & Hoy, 2008; Oliva & Pawlas, 2001; Sullivan & Glanz, 2000; Zepeda, 2012). As principals routinely visit teachers' classrooms to provide coaching and feedback, they engage in formative supervision (Hinchey, 2010; Matthews & Crow, 2010). DiPaola and Hoy (2008) stated formative supervision included "any set of activities planned to improve teaching, it is basically a cycle of systematic planning, frequent observation, analysis of the teaching-learning process, and the assessment of student outcomes" (p. 23). To effectively make this assessment, principals collect quantitative and qualitative data concerning teachers' performance (Range et al., 2011; Zepeda, 2007) and engage teachers in collaborative dialogue affirming their efforts and identifying areas for improvement (Green, 2010). During these conversations, principals attempt to cause teachers to reflect about their practice (Emstad, 2011).

Trust

A powerful precursor to effective supervision is trust between teachers and principals (DiPaola & Hoy, 2008). If principals can build a trusting supervisory culture, teachers are more apt to be collaborative and open with each other, as well as reflective about their need for improvement (Hoffman, Sabo, Bliss, & Hoy, 1994; Tschannen-Moran, 2001). To do this, principals must self-assess their leadership style to determine if teachers have confidence in their actions and examine whether they exhibit integrity in communicating expectations about teaching and allocate resources to support instruction (Zepeda, 2007). A collaborative leadership style is important when building trust because all teachers have a vested interest in assisting with decisions regarding the focus of instructional practices (Bryk & Schneider, 2002; Green 2010).

Feedback

Throughout the formative supervision process, teachers expect feedback about their performance that is honest, constructive, and aligned to professional development opportunities (Range, Hvidston, & Young, 2013). Without quality feedback, teachers are unable to reflect about their practice, which in turn decreases their desire to improve (Aseltine, Faryniarz, & Rigazio-DiGilio, 2006; Frase, 1992). Effective feedback should be based on observable data, provide affirmation for positive teaching characteristics, and promote reflection with the intent of molding teachers into self-directed leaders of their own learning (Danielson & McGreal, 2000). Hattie (2009) believed effective feedback answered

three important questions: (a) where am I going [the goals], (b) how am I doing, and (c) where to next.

Motivation

Because the intent of supervision is teacher growth and development, effective principals understand how their supervisory style is closely linked to teacher motivation (Zepeda, 2007, 2012). Green (2010) defined motivation as the ability of individuals to remain focused and self regulate their thinking to guide their behaviors toward an intended goal. Oliva and Pawlas (2001) described motivation as “the desire of the learner to learn” (p. 158). To nurture teachers’ motivation, principals should adopt a shared, collaborative model of supervision in which teachers are active participants in instructional decisions, experience success more than failure, and feel valued and respected (DiPaola & Hoy, 2008; Oliva & Pawlas, 2001). Zepeda (2007) argued principals must understand how motivation and adult learning are linked because supervision that increases motivation looks different for early career teachers and veteran teachers. Beginning teachers are motivated by administrator approval and are concerned with compliance, while veteran teachers seek out professional leaning to deepen their understanding about effective teaching (Burden, 1982; Zepeda, 2007). In the end, principals who desire school environments that foster motivation must be cognizant of various goals, needs, and desires, both extrinsic and intrinsic, which drive teachers to behave in certain ways (Zepeda, 2007).

Supervision of Student Teachers

Prior to beginning student teaching, pre-service teachers are engaged in coursework that should equip them with skills, knowledge, and understanding to make them successful in the classroom. Nolan and Hoover (2008) suggested the most unique challenge in supervising pre-service teachers is aiding them in transitioning this formal knowledge into practical knowledge, which is knowledge that puts learning into action. As a result, it is the role of faculty supervisors to aide student teachers in translating this learning into action (Bates & Burbank, 2008; Ediger, 2009). Although the structure of how student teachers are supervised varies based on universities’ practices, most use faculty supervisors, who work closely with a mentor teacher, to provide feedback concerning classroom performance. Nolan and Hoover (2008) referred to this supervisory model as a triad, in which faculty supervisors, mentor teachers, and student teachers work together to share decision making about student teachers’ field experiences. Caires and Almeida (2007) found student teachers’ motivation and self-efficacy increased when they worked with faculty supervisors who were involved, accessible, empathetic, and supportive.

The supervisory method faculty supervisors most commonly use with student teachers looks very similar to clinical supervision methods utilized by principals (Cogen, 1973; Goldhammer, 1969; Nolan & Hoover, 2008). Clinical supervision includes three stages: pre-observation conferences between faculty supervisors and student teachers, extended observations in which faculty supervisors watch student teachers’ lessons, and post-observation conferences in which faculty supervisors and student teachers debrief about lessons (Ong’ondo & Borg, 2011; Range et al., 2013).

Prior to the observation, faculty supervisors clarify objectives of the lesson, discuss activities contained within the lesson, and ask questions about how students will be assessed (Ediger, 2009). During the lesson, faculty supervisors observe a wide variety of classroom variables, which include teacher behaviors, student activities with time lines, student engagement, and transitions (Zepeda, 2007). However, the role of faculty supervisors is very different from principals given the fact they also rely on mentor teachers to provide supervision (Ediger, 2009; Nolan & Hoover, 2008). Therefore, the purpose of this study was to explore the strategies faculty supervisors use to supervise and build the capacity of student teachers, and thus gain insight into their supervisory knowledge. Findings are then framed within the formative supervision literature directed at principals who work directly with novice teachers.

Context of the Study

One four-year, public university located in the Mountain West was used in data collection. Total undergraduate enrollment was 9,793 students and the university offered approximately 190 areas of study. The university had a teacher preparation curriculum in which students could receive professional certification to teach at the early childhood, elementary, or secondary levels. In order to become certified, pre-service teachers had to successfully complete 15 weeks of student teaching under the supervision of three individuals: (a) a faculty supervisor, (b) a mentor teacher, and (c) a field supervisor. Due to the rural nature of the state, faculty supervisors could not make weekly visits to observe and provide feedback to student teachers. As a result, the university relied on field supervisors, typically retired teachers or principals, to provide daily support to student teachers in their geographic area of the state.

Method

The purpose of this study was to explore the perceptions of faculty supervisors about their formative supervision and mentoring of student teachers. The following research questions were addressed:

1. How do faculty supervisors rate the importance of various supervisory behaviors?
2. What behaviors do faculty supervisors report using to provide support to student teachers?

Qualitative research methods were applied and used semi-structured interviews with a survey component to collect data from faculty supervisors. Faculty supervisors were purposively sampled by contacting department heads of Curriculum and Instruction (elementary and secondary) to provide names of supervisors who they deemed skilled in providing supervision and mentoring to student teachers. In February 2012, an e-mail was sent to nine faculty supervisors inviting them to participate in semi-structured interviews. Interviews were conducted in faculties' offices and lasted between 30 to 45 minutes. The interview protocol consisted of two demographic questions and nine open-ended questions focused on formative supervisory and mentoring behaviors such as feedback, trust, motivation, and observation.

The interview concluded with 12 Likert scaled items (1=not important to 4=very important) and asked faculty supervisors to rate their importance in providing formative supervision to student teachers. Chronbach alpha coefficient was calculated in order to determine internal consistency for this section of the interview protocol (0.67). Content validity was supported by the correspondence between formative supervision literature and these 12 items, as well as, expert review.

Study Participants

Participants included three male and six female faculty supervisors, all working in curriculum and instruction in one of three program areas: (a) early childhood education (N=1), (b) elementary education (N=5), and (c) secondary education (N=3). Participants' average years supervising student teachers was 11.67, with a range of five to 22 years. For one participant, this supervision experience included three years as a mentor teacher, and for two other participants, this included student teacher supervision as graduate students. Participants' average years working in higher education was 10.67 years, with a range of five to 22 years. Finally, five participants indicated they had received no prior formal training in supervising student teachers. These individuals reported any informal training they received was on the job and provided by colleagues who had supervised student teachers in the past. Four participants received formal training in providing supervision and acquired this training either through graduate school classes or in service trainings offered through professional organizations.

Data Analysis

Semi-structured interviews were transcribed and qualitative data were coded, recoded, and condensed into themes by one researcher (Jones, Torres, & Armino, 2006). Specifically, analysis followed Strauss and Corbin's (1990) three levels of coding qualitative data: (a) open coding, (b) axial coding, and (c) selective coding. That is, participants' answers during interviews were transcribed by hand and then re-typed immediately. Transcripts were coded descriptively and interpretively, and then moved to pattern identification in later analysis of scripts. Coding was characterized as flexible and expandable as themes emerged (Goldstein, 2005). After initial coding by one researcher, the other authors coded interviews to ensure reliability and authors checked codes until agreement was reached. Responses to the 12 Likert-scaled items were analyzed descriptively and included both means and standard deviations.

Findings

Research question one, which asked how do faculty supervisors rate the importance of supervisory behaviors, was answered with 12 Likert scaled items (1=not important to 4=very important), all of which dealt with formative supervision. Table 1 displays the means and standard deviations for these items.

Table 1
Faculty Supervisors Attitudes about the Importance of Supervisory Behaviors

Supervisory Behavior	M	SD
Feedback on student engagement	4.00	0.00
Brainstorming ways in which student teachers could improve their practice	3.89	0.33
Trust building with student teachers	3.89	0.33
Feedback on instructional strategies	3.78	0.44
Listening to student teachers' concerns	3.67	0.50
Causing student teachers to reflect about their practice	3.67	0.50
Feedback on students' level of thinking	3.56	0.73
Increasing student teachers' motivation	3.56	0.73
Feedback on lesson objectives	3.33	0.50
Feedback on aligning instruction to standards	3.22	0.67
Feedback on curriculum design	2.89	0.78
Connecting student teachers' needs to professional development	2.67	0.50

Note: 1=not important to 4=very important

Faculty supervisors rated all 12 items as important, as all had means greater than 2.50. Supervisors overwhelmingly perceived *feedback to student teachers on levels of student engagement* as a very important supervisory behavior (M=4.00). Other supervisory behaviors faculty perceived as important included *brainstorming ways in which student teachers could improve their practice* (M=3.89), *trust building* (M=3.89), *feedback about student teachers' instructional strategies* (M=3.78), *listening to student teachers' concerns* (M=3.67), *causing student teachers' to reflect* (M=3.67), *feedback on students' level of thinking* (M=3.56), *increasing student teachers' motivation* (M=3.56), *feedback on lesson objectives* (M=3.33), and *feedback on aligning instruction to standards* (M=3.22).

Research question two asked participants to describe supervisory behaviors they utilized when providing support to student teachers? To answer this question, respondents' answers to the semi-structured interview questions were coded. Findings from the interviews are described below.

Trust Building

Participants were unanimous regarding the paramount importance placed on trust building with student teachers. All participants indicated they built trust during methods classes (math, science, literacy) in which they taught student teachers who they might supervise during field experiences. For example, one participant indicated she had all student teachers in class the previous fall, which in turn provided her an opportunity to forge a personal relationship with each student. Furthermore, participants indicated the primary vehicle for building trust with student teachers was by providing open and candid communication. One participant explained early in the semester, he provided student teachers a calendar detailing the dates and times of his classroom visits. If he knew he would not be able to keep an appointment, he immediately called and e-mailed students to let them know. Another participant stated she gave student teachers her cell phone number, which helped reassure them they could contact her immediately if they had a problem. Finally, two faculty supervisors surmised open communication with student teachers was comprised of simply being honest about classroom problems they observed, even if mentor teachers were reluctant to share criticism with student teachers.

Clinical Supervision

Three semi-structured interview questions dealt directly with each component of the clinical supervision process: (a) pre-observation, (b) observation, and (c) post-observation. When asked to describe this process, responses were similar, yet most did not follow the cyclic format of clinical supervision and left out the pre-observation conference. Five respondents stated they did not have formal pre-observation conferences with student teachers before they observed a lesson. The primary reasons for this were lack of time and geographical distance. That is, because of the rural nature of the state, supervisors could not be present for all student teachers' pre-observations conferences. Those who did conduct pre-observation conferences typically did them through e-mail and focused on lesson planning or determining the focus of the lesson. First, several participants asked to see student teachers lessons plans, including clear objectives they hoped to accomplish as a result of the lesson. One participant stated, "I try to get a sense whether they have planned for [the varied demographics of their students]. New teachers cannot short change the planning of a lesson." Second, participants stated pre-observation conferences served as a way to establish the focus of the lesson. Specifically, this focus would eventually be used to instigate dialogue in the post-observation conference. Supervisors indicated the primary focus they attempted to establish was what student teachers' wanted them to look for during the lesson. A secondary focus included input from mentor teachers as to what they believed faculty supervisors should look for during observations.

Participants indicated during observations, they looked for two teaching behaviors, namely classroom management and student interactions. Overwhelmingly, supervisors believed they focused on student teachers' abilities to regulate student behaviors with the use of proximity, specific classroom management techniques, time management, and student engagement. Supervisors believed student teachers required constructive feedback on low-level, myopic teaching skills because as beginners, they struggled with simple formalities. One respondent described when documenting management techniques he "did not look for a

specific technique, but [student teachers'] expectations and follow through and I'm looking for ways they prevent behavior so they don't have to respond to it." Finally, participants who viewed classroom management as important also believed it was directly connected to levels of student engagement. Specifically, when student teachers had the ability to manage student behaviors in a proactive, positive manner, more students were engaged during the lesson.

Respondents described their observations about affective teaching characteristics, including how student teachers' interact with students and how students respond to those interactions. One participant reciprocated, "The first thing I look for is how they relate to students. Their comfort level should increase as they work with kids. Can they be in the moment with kids?" As a result of student teachers' interactions with students, one supervisor articulated her focus of how students responded to those interactions. "I really watch if the students are resentful of the student teacher. Are they willing to engage with him or her?"

All faculty supervisors indicated they conducted post-observations conferences with student teachers and many participants stated they asked mentor teachers to be present during these conferences. The primary purpose of asking mentors to attend was to ensure all participants (faculty supervisor, student teacher, and mentor teachers) had clear expectations of what was observed, as well as, future professional growth for student teachers. Additionally, because faculty supervisors did not have a deep understanding of the context of classroom routines, mentor teachers could provide feedback specific to classroom norms.

A common theme throughout participants' descriptions was the format of post observation conferences in which participants described a systematic sequence of events, usually in three parts: (a) reflective questioning, (b) constructive feedback, and (c) future growth. First, participants began post-observation conferences by asking student teachers questions about their performance, with the intent of building self-reflection skills. This sequence of questioning and self-reflection was paramount to frame conversations that would encompass post observations conferences. Participants described questions as "lots of what ifs or why questions," "did you notice," and "have you ever thought." For example, one supervisor stated he required student teachers to discuss three things they did well during the lesson and then asked probing questions about explicit and implicit teaching behaviors based on student teachers' responses. Another participant explained she asked student teachers to write personal goals they hoped to achieve throughout the semester and at the beginning of each post-observation conference, she asked questions about student teachers' progress toward these goals.

This attempt to mentor student teachers to be self directed, reflective thinkers was important as participants described post observations conferences. Participants believed self-reflection was arduous for student teachers because they tend to only focus on negative occurrences throughout the lesson, usually student misbehavior. To formulate self-reflection skills, participants asked student teachers to keep personal journals about their experiences, engage in two-way journaling with mentor teachers, and videotape themselves teaching. One respondent stated after the lesson "I ask them to sit down and reflect. They write down their reflections about the lesson."

The second stage within post observation conferences included faculty supervisors delivering feedback to student teachers about teaching effectiveness during the lesson. Several participants provided student teachers with lesson scripts and one participant provided detail how he distinguished between teacher and student behaviors by using different colors of ink as he took notes. Faculty supervisors described their feedback as positive and constructive yet,

upfront when they sensed student teachers would benefit from immediate intervention. More specifically, feedback fit into two categories, namely low-level telling phrasing and higher order questioning. Participants described feedback, usually about novice teaching errors, as direct in nature. For example, one faculty supervisor described this as telling them “do this, but don’t do that again.” Another supervisor stated he attempted to connect direct feedback to student teachers’ prior knowledge, which provided context for his assessment of their performance.

Finally, participants described the last phase of the post observation conference as one in which they and student teachers collaboratively devised a plan to promote future growth. Compellingly, participants believed it was best to focus on only one to three areas of improvement, as student teachers “cannot be expected to fix everything.” Additionally, faculty supervisors encouraged mentor teachers to provide input about student teachers’ future growth because “they see students six hours a day while we only see them a few times with a pre-planned lesson,” meaning mentor teachers have a better understanding of student teachers’ weaknesses and strengths.

Motivation

When asked about how faculty supervisors motivate student teachers, participants stated it was difficult because motivation is highly individual and is typically extrinsic during student teaching because students receive a letter grade for their performance. Participants described student teachers’ motivation as a downward slope, in which motivation is high in the beginning, but begins to dissipate as the semester progresses. One faculty supervisor believed this decline in motivation at the end of their student teaching duties was good because “their motivation starts to dwindle at about week 12 when they are giving back the majority of their teaching duties to their mentor teacher.”

The most prominent way participants believed they impacted student teachers’ motivation was through student teaching seminars. These seminars, conducted one time a month, required all student teachers in geographic areas to meet and discuss their successes and difficulties. One participant believed these seminars provided his student teachers a fresh perspective on their own experience because, as they spoke to other student teachers, they realized their problems were not exclusive. Other methods discussed were encouraging student teachers to observe other teachers (not only their mentor teachers) in their assigned schools, explicitly advocating the importance of rest, exercise, and eating correctly, and reminding student teachers routinely of what criteria would be used to justify their grade at the end of their field experience.

Remediation

Faculty supervisors believed when student teachers struggled, potential causes revolved around classroom management issues or lack of proper lesson planning. Participants unanimously stated supervision for struggling student teachers was much more laborious, incremental, and compartmentalized. That is, they provided them with more observations and communicated with their mentor teachers weekly. One participant expanded on this by saying, “I tell them upfront, if you see me more, I think you are struggling. I have spent the whole day with teachers who were struggling.” Additionally, supervisors relied on mentor teachers to

support student teachers who required remediation. Participants communicated with mentor teachers regularly, asked them to participate in conferences with student teachers, and catechized mentor teachers to document student teachers' struggles. For example, one faculty supervisor stated he asked mentor teachers to document problems using a journal to pinpoint teaching behaviors for potential improvement.

Participants described remediation plans that were timeline driven, embedded with frequent meetings to provide student teachers' with accountability, and incremental based on success. Within these remediation plans, faculty supervisors highlighted the need to keep problems to a manageable level, usually two to five, because their intent was to instigate instructional change and not overwhelm student teachers. Finally, participants explained that because they did not observe student teachers every day, it was critical to collect multiple sources of data on their performance. Primarily, this data was collected from a variety of individuals who observed student teachers including mentor teachers, field supervisors, other faculty supervisors, and principals. One participant stated, "We have at least two university faculty observe the student teacher, including the mentor, so we can get multiple eyes on the problem."

Discussion and Conclusions

This study, limited to both qualitative methods and to one public university in the Mountain West, was conducted to illuminate how faculty supervisors provide formative supervision and mentoring to student teachers and use the findings to inform the literature concerning principals' supervision of novice teachers. Several significant themes to inform principals' supervision of early career teachers were discovered with accompanying recommendations. First, faculty supervisors view supervision through a wide lens (Zepeda, 2012) and believed providing feedback to student teachers about levels of student engagement in their classrooms was the most important behavior. Indeed, Quinn (2002) surmised principals who were strong instructional leaders positively impacted student engagement by providing feedback to teachers about how their instruction fostered or inhibited active student learning. More specifically, novice teachers need support in "engaging students in solving real-world problems to make content more meaningful and exciting" (Chesley & Jordan, 2012, p. 43) including differentiated instruction, constructivist activities, and cooperative learning.

However, our interviews and subsequent research (Meister & Melnick, 2003; Tschannen-Moran & Hoy, 2007) indicates that although feedback concerning instruction including student engagement is important, novice teachers' apprehensions revolve more around low level teaching skills, with the focus on classroom management and planning. Specifically, novice teachers struggle with generic teaching issues such as lesson planning, attendance and data keeping, teaching rules and procedures, and arranging the classroom setting (Chesley & Jordan, 2012; Evertson & Smithey, 2000; Kimball, 2003). As a result, as student teachers transition into their first teaching jobs, it can be assumed they will continue to struggle with similar, logistical teaching behaviors (Cuddapah & Burtin, 2012) but without the direct guidance of mentor teachers (Nolan & Hoover, 2008). Effective principals clearly understand novice teachers' managerial struggles and provide supports, including experienced faculty mentors, to induct them carefully into the profession (Roberson & Roberson, 2009; Watkins, 2005).

Faculty supervisors underscored the importance of trust building with student teachers. They primarily built trust through personal contact with student teachers during coursework, but also relied on open, two-way communication to keep the trust relationship flourishing. The notion of trust between supervisors and supervisees has been discussed at great lengths within the literature (Henson, 2010; Nolan & Hoover, 2008; Zepeda, 2012, 2007). However, it is important for principals to understand how important trust building is with novice teachers. Although an intangible aspect of leadership (Quinn, 2002), effective school leaders must create personal relationships with novice teachers so they understand principals care about their success. Prominent to trust is the ability of principals to create school climates in which novice teachers feel valued and are afforded the opportunity to collaborate with other experienced and early career teachers alike.

In regards to the clinical supervision process, faculty supervisors validated their knowledge about teaching problems associated with student teachers because the focus of their supervision efforts was quite direct (Glickman, 1990; Glickman, Gordon, & Ross-Gordon, 2005). For example, during pre-observation conferences, faculty supervisors stated they converged on both lesson planning and the observational focus of the upcoming lesson (either student teacher or mentor teacher directed). Clearly, faculty supervisors who engaged in pre-observation conferences understand what Nolan and Hoover (2008) recommended, inexperienced teachers require pre-observations conferences as a strategy to make lesson planning explicit and to uncover novice teachers' instructional decision making. As a result, effective principals do not circumvent pre-observation conferences and use them to ensure novice teachers understand clarity of lesson objectives, including systematic steps used in constructing the lesson (anticipatory set, instruction, and closure).

During post-observation, because participants highlighted their role in observing classroom management techniques, they understand student teachers' ability to successfully administer student behaviors is a significant indicator when making judgments about effective and ineffective teachers (Henson, 2010; Stronge & Hindman, 2003; Stronge, Ward, & Grant, 2011). As a result, principals must have this same focus when observing early career teachers; those who have command of their classrooms set the stage for learning. Additionally, university faculty believed how well student teachers interacted with their students, and students' subsequent reciprocity to these interactions, was an indicator of effective teaching. Likewise, principals should observe affective dimensions of classrooms and their impact on classroom climates (Ross, McDonald, Alberg, & McSparrin-Gallagher 2007).

During post-observations conferences, findings highlight an important concept linked to principals' supervising novice teachers. Faculty supervisors understood student teachers had difficulty reflecting on their practice after the lesson, because reflection is learned through time and experience (Henson, 2010; McIntyre & O'Hair, 1996; Nolan & Hoover, 2008). As a result, they began post observation conferences with a series of reflective questions and frame limited feedback in the form of probing questions. Zepeda (2012, p. 186) referred to these questions as *icebreakers*, in which supervisors invite teachers to reflect about how teaching and learning are connected; in a cause and effect manner. Similarly, principals should acknowledge this reflective shortcoming within novice teachers' metacognition and resist the temptation to interject solutions about lesson problems (Nolan & Hoover, 2008; Zepeda, 2012). In sum, one goal of effective supervision is to transform novice teachers into self-directed learners who depend on supervisory intervention less as they gain confidence. However, because reflection is a skill that should be practiced outside the classroom, requiring

novice teachers to journal about their experiences, discussing their experiences with other early career teachers, and videotaping themselves teaching are effective ways to practice reflection skills outside post-observation conferences (Henson, 2010; Hoover, 1994; Nolan & Hoover, 2008; Watkins, 2005; Zepeda, 2012). As a result, school districts should design teacher induction programs that require early career teachers to engage in a variety of reflection tasks. Principals should provide time for novice teachers to routinely reflect with experienced teachers about their planning, instruction, and working with student (Cuddapah & Burint, 2012).

Interestingly, participants believed they had little control over student teachers' motivation and attributed student teachers' desires to succeed to extrinsic factors. Additionally, supervisors believed concrete experiences contributing to student teacher motivation (student teaching seminars, observing other teachers) had little to do with intrinsic rewards. These views support Fuller's (1969) teachers' stages of concern and Zepeda's (2012) discussion concerning career stages of teachers. Specifically, novice teachers are in survival mode, preoccupied by external motivation factors like compliance and acceptance. Nevertheless, supervision literature stresses how important leadership style is to intrinsic teacher motivation (Zepeda, 2012). Due to the rural nature of the state in this study, faculty supervisors had limited direct contact with student teachers, and as a result, probably viewed their ability to influence motivation as restricted. However, principals who have daily contact with novice teachers should internalize their role in creating conditions that attempt to motivate novice teachers. The first step is to develop relationships with novice teachers "marked by trust, mutual respect, and the willingness to work collaboratively to solve problems" (Nolan & Hoover, 2008, p. 28).

Finally, noteworthy findings surfaced in discussions about how ineffective student teachers are supervised. First, participants described remediation processes as compartmentalized and timeline driven. Their descriptions align with the directive control approach, in which supervisors emphasize what must be achieved to reach proficiency, and the supervisory relationship is more autocratic than collaborative (Glickman, 1990; Glickman et al., 2005; Zepeda, 2007, 2012). Principals who use the directive control approach with struggling novice teachers outline expectations for acceptable performance and use formal plans of remediation to document assistance.

However, describing the directive control process seems to place the burden of confronting ineffective teachers solely on the shoulders of principals. This highlights a second point; supervising ineffective teachers, and teachers in general, should be a distributed process and not the sole responsibility of principals (Goldstein, 2005; Henson, 2010; Spillane, 2005). During interviews, faculty supervisors relied on other university personnel, mentor teachers, and field supervisors to observe student teachers who were struggling. By doing so, they collected multiple sources of data about problems and removed individual bias from conclusions. As a result, remediation decisions about student teachers' future trajectories were collaborative.

As noted, novice teachers struggle with generic teaching problems and expecting principals to provide constructive feedback on these issues daily is an unrealistic expectation. When coupled with other duties of the principalship, instructional leadership is a role receiving limited attention by principals; not because they view it as unimportant, but organizational management issues cut into their time (Hornig, Klasik, & Loeb, 2009; Kersten & Israel, 2005; Range et al., 2011). Principals' ability to influence teachers' instructional

decisions is a powerful predictor for student achievement, however, school districts must re-think supervision and evaluation processes to lighten the burden on principals as both supervisors and evaluators, especially with novice teachers. Effective teacher supervision can no longer pivot on the notion principals are solely responsible for teacher growth in schools. Whether it is through differentiated supervision, action research, portfolio supervision, or peer coaching (Nolan & Hoover, 2008; Zepeda, 2012), teachers and periphery school personnel can share supervision duties with principals (Scherer, 2012). School districts that adopt supervision and evaluation procedures that rely on multiple stakeholders to identify teacher effectiveness are more likely to create school climates that have high expectations for teacher performance.

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Outputs as Educator Effectiveness in the United States: Shifting Towards Political Accountability

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The definition of educator effectiveness is being redefined by econometric modeling to evidence student achievement on standardized tests. While the reasons that econometric frameworks are in vogue are many, it is clear that the strength of such models lie in the quantifiable evidence of student learning. Current accountability models frame accountability in terms of educator effectiveness through student achievement as edunomic outputs. There have been three phases of edunomic outputs, with the unit of analysis ranging from broad, institutional data to individual teachers and students. This trend for using quantitative outcomes in educational accountability is buoyed by a shifting perspective of accountability informed from those inside the profession to a definition shaped by external perspectives defined by econometric models. Educator accountability is evolving into a political accountability policy (McDonnell, 1994) as education witnesses a transition from professional to political accountability models. Educators must continue to problematize the outputs measurement for effectiveness to include broader forms of student achievement and find ways to refine measurements in econometric models for political accountability that speak to student achievement informed by professional judgment.

Introduction

Accountability abounds. Professional discourse is full of references to new accountabilities, and the general citizenry served by professions are increasingly aware of and vocal about issues surrounding accountability. Accountability is the undercurrent of professional activity. The reasons that educators are immersed in increased accountability are historically situated and complex in nature. Highly public failures of trust in the business, political, and medical sectors along with the current economic crisis, contribute to our society's interest in new or redefined accountability structures.

The current narrative around accountability from the public, academics, politicians, and policymakers highlights the non-neutrality and variability of use. In its most dispassionate interpretation, accountability is construed as a simple accounting or explanation of an event – one in which there is not an expectation or culpability implied. On the other extreme, accountability is swiftly becoming synonymous with dissatisfaction, punishment, or high-stakes consequences. As Stone (1997) suggested, the accountability narrative is situated in

societal and political realities with interpretations emerging from the *polis* or community at large, and interpretations will be always in flux. We contend that educator effectiveness is being redefined by an evolving accountability system focused on student performance outcomes and gauged through emerging econometric models. In this investigation of policy, we describe how educator effectiveness has been measured to suggest that the traditional model of professional accountability is shifting to a political accountability model. This shift is due, in part, to a confluence of changing social realities. Concomitantly to a shift in accountability perspectives for educators, the field has also seen an increase in the use of econometric models, both in terms of principles of the market and methodological contributions, to educational policy. While the reasons that econometric frameworks are in vogue are many, it is clear that the strength of such models lie in the quantifiable evidence produced (Dearden, Machin, & Vignoles, 2009).

Defining Teacher Effectiveness: Inputs, Processes and Outputs

In the United States, classroom teachers historically have been held accountable through school (Danielson & McGreal, 2000) or corporation teacher evaluation systems. However, the definition of teacher effectiveness has changed over the years and was typically fashioned by the dominant description of classroom effectiveness at that time (Campbell, Kyriakides, Muijs, & Robinson, 2003; Cheng & Tsui, 1999; Cruickshank & Haefele, 1990; Muijs, 2006). Goe, Bell and Little (2008) identified the multiple measures used to evaluate teachers, including observation, principal evaluation based upon observation and other informal data, instructional artifacts, portfolios, self-reporting, student ratings, and student learning. These authors suggest that teachers' effectiveness for accountability has been measured using three distinct variables: input variables, process variables, and output or product variables. The definition of teacher effectiveness in input, process, or output models depends on distinct measures to judge effectiveness (Harris & Sass 2009; Harris & Rutledge, 2010).

The input measure of teacher effectiveness attempts to answer the effectiveness issue by isolating the variables that teachers bring to the occupation. Examples of input measures include teacher individual characteristics, scores for college entrance examinations, high school and university GPA, achievements gained from professional teacher education (content and pedagogical knowledge), and certification or licensure status. Historically, input measurements revolved around qualities such as teacher morality and basic teaching skills (Sedlak, 1989). Teachers were expected to maintain societal mores and values as measures of their effectiveness. Later, teacher preparation and advanced degrees became the input measures used to evaluate teacher effectiveness (Darling-Hammond & Youngs, 2002; Wilson, Flooden, & Ferrini-Mundi, 2001). Teacher effectiveness research of the 1960's and 1970's promoted the clinical supervision model that attempted to demonstrate that positive teacher behaviors or personality characteristics were linked with student achievement and that certain evaluation instruments could be designed to identify those teacher behaviors (Danielson & McGreal, 2000). These presage variables, more commonly known as teacher traits, determined the effectiveness of teachers in an input driven effectiveness and accountability model (Rosenshine & Furst, 1971; Brophy & Good, 1986; Slavin, 1987; Gagne, 1977).

While input measures focused on variables solely attributed to the classroom teacher, process variables focused more on teacher and student interaction in the classroom. Termed as process-product measurement, Anderson, Evertson, and Brophy (1979) describe these

processes as the “relationships between what teachers do in the classroom (the process of teaching) and what happens to their students (the products of learning)” (p. 193). Researchers identified specific teaching behaviors that had a strong correlation to higher student achievement therefore changing the definition of effectiveness to what teachers *did* rather than who they *are* (Medley, 1979). A sample of teaching behaviors that emerged from this work included clarity, variability of instruction, enthusiasm, a task-oriented approach, and others. Thus, effective teaching could be codified and taught to new and practicing teachers.

The third teacher effectiveness measure documented by Goe, Bell and Little (2008) has been an output variable. The range of output variables included student scores from teacher or district made tests, such as criterion referenced tests created by teachers; student engagement measures, such as time on task; student behaviors or social and emotional learning outcomes and student attitudes; and standardized tests such as the Stanford Achievement Test, Iowa Basic Skills, Terra Nova tests or standards-based state tests. Widespread public reporting of other standardized testing, including the National Report Card (National Assessment of Educational Progress) and international tests such as the Trends in International Math and Science Study (TIMSS) and the Program for International Student Assessment (PISA), have heightened the public’s awareness of the United States’ ranking in international comparisons, leading to a stronger focus on student outputs for educator accountability.

It is on this third measure of student outcomes that we focus. A shift has occurred in the field of teacher effectiveness to isolate student achievement on standardized test scores. What makes this third measure for defining teacher effectiveness different from earlier definitions of outputs is the usage of high stakes student standardized test score outputs as a primary measure for teacher accountability. According to this most recent outputs paradigm of teacher effectiveness, student achievement should be the dominant measure of teacher effectiveness rather than focusing upon specific teacher behaviors, dispositions as measures of teacher quality, or measures of inputs, such as teacher certification (Rockoff, 2004; Rivkin, Hanushek & Kain, 2005; Harris & Sass, 2008). Lines of inquiry on program structure for traditionally or alternatively certified teachers furthered the notion of student achievement outcomes as a valid measure of teacher effectiveness (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008; Kane, Rockoff, & Staiger, 2006). Teacher accountability, as defined by the outcomes of standardized testing, is fast becoming the dominant criterion for teacher effectiveness. We argue that policy makers have embraced powerful statistical models, influenced from the discipline of economics, that have emerged concurrently with public policy and that function as a primary accountability lever for educators.

The Influence of Economics in Defining Educator Effectiveness

Economists in the United States and Europe have studied varying dimensions of education for decades. For example, interest in the relationship between economic issues and education has driven international research aimed at understanding the impact of education in developing areas and the impact of poverty and inequalities on sustainable development (Knight, 2011; Power & MacLeans, 2010). In addition, investigations have focused upon working conditions as they intersect with teacher quality (Hanushek & Rivkin, 2007) which include: teacher pay and student achievement (Hanushek, Kain, & Rivkin, 1998); how peers affect students’ achievement (Hanushek, Kain, Markman, & Rivkin, 2008); the effect of teacher absences

(Clotfelter, Ladd, & Vigdor, 2009), and other areas with varying degrees of success at affecting educational accountability systems.

According to Dearden, Machin, and Vignoles (2009) an upsurge of interest in education among economists, particularly in the United Kingdom and the United States, is attributed to a trend towards regulated markets in the public domain. The authors documented the several areas where economics has impacted education. The first was in improving understanding of the impact of education on individuals and the economy as a whole such as the return on investments in education (Harmon & Walker, 1995). A second contribution was the modeling of education production and distribution of resources, such as the effects of smaller class sizes (Todd & Wolpin, 2007). The third contribution to education from economics centered on the role of education in promoting or preventing social mobility and inequality (Blanden, Gregg & MacMillan, 2008). Economists, however, have not historically studied the definition of teacher effectiveness. With the emergence of large data sets following No Child Left Behind (NCLB) and other state initiatives, such as the Tennessee Value Added Assessment System, in the United States econometric models have been used for accountability purposes for educators.

Econometric Models for Measuring Output Accountability

Econometrics is defined as an economic measurement but as the following definitions indicate, the scope is much broader. Tinter (1968) defined econometrics as “the result of a certain outlook on the role of economics, consisting of the application of mathematical statistics to economic data to lend empirical support to the models constructed by mathematical economics and to obtain numerical results” (p.74). As a social science, econometrics is defined as a methodology “in which the tools of economic theory, mathematics, and statistical inference are applied to the analysis of economic phenomena” (Goldberg, 1964, p.1). There are several forms of econometric models utilized for quantifying student learning used in the United States. This section will address econometric models from large data sets to measure outputs to define educator effectiveness and will also focus on the concerns for using these models for measuring accountability.

With state and national reform, large data sets of student performance required quantitative models for analysis. Status models (Betebenner, 2009) create a snapshot of student growth with no comparisons made to other years of the student’s learning. Improvement models (Hull, 2007) use norm-referenced measures to compare students to similar cohorts. Growth models (Gong, 2003) measure student learning as it changes from point to point in time. Unlike the achievement levels of minimum student performance mandated by No Child Left Behind (2002), growth models calculate progress or pace in order to summarize and project trends in student outputs to provide information about which programs or teachers are “growing” students (Betebrenner, 2009; Briggs & Weeks, 2009).

The focus of measurement within growth models varies, depending on the type of growth model that is used: growth-to-standard, simple growth or projection growth. A growth-to-standard model demonstrates criterion-referenced goals by measuring student progress toward proficiency of standards, usually with a cut score that identifies proficiency of student growth (Hull, 2007). In simple-growth models, norm-referenced measures compare the student to herself as she moves from grade to grade and suggest academic growth (Hull,

2007). In simple-growth models, students may demonstrate individual learning but are not compared to a criterion, such as in growth-to-standard models

In recent years, a third growth model category, projection growth, has proliferated policy-oriented educator accountability. Projection-growth models use the student's previous achievement levels from standardized tests to predict future learning levels of growth (Betebenner, 2009). They predict the change that should occur over time in the student's academic growth based upon previous performance. There are several projection-growth models, but value-added models (VAM's) have been most influential in policy aimed at educator accountability.

Value-added models are a collection of complex, statistical techniques that use multiple years of student test score data to estimate the effects of individual schools or teachers (Sanders & Rivers, 1996). Tennessee was a leader in the value-added movement with students measured for academic growth in grades three through high school using William Sanders' value added model, the Tennessee Value Added Assessment System (TVAAS) (Sanders & Rivers, 1996), which is now known as Education Value Added Assessment System (EVAAS). William Sanders, a statistician at the University of Tennessee, modified statistical models he had previously applied to agricultural genetics to "enable a multivariate, longitudinal analysis of student achievement data," (Sanders & Horn, 1998, p. 2). Sanders and his research team have claimed that given several years of student test data, they could predict a student's growth pattern (Sanders & Horn, 1998). Ohio subsequently adopted statewide value-added measures (Braun, Chudowsky, & Koenig, 2010) and value-added growth models are used in Pennsylvania and North Carolina (Eckert & Dabrowski, 2010). Furthermore, both Dallas, TX (Thum & Bryk, 1997) and Milwaukee, WI (Meyer & Dokumaci, 2010) adopted value-added models for measuring their students' performance outputs.

Holding teachers accountable for this redefined notion of effectiveness as measured by the outcomes of students and quantified through econometric frameworks has not been without its detractors. Concerns over statistical modeling to measure educator effectiveness have emerged over recent years as researchers problematized their usage for accountability. Rand Corporation researchers, McCaffrey, Koretz, Lockwood, and Hamilton (2004), conducted extensive research using value-added models and explored the benefits and perils of their use for teacher accountability. Concerns over econometric models such as value-added growth models were varied, but included: the dilemma of missing or corrupt data, such as when a student transfers into a new school district; the difficulty of assigning teacher effect scores to one person when a team of people are associated with a students' learning, such as when teachers team teach in inclusion classrooms; the variability of class size and its relationship to student achievement; and the inconsistency of value-added scores from year to year (Amrein-Beardsley, 2008; Baratz-Snowden, 2009; McCaffrey, Lockwood, Koretz, Louis, & Hamilton, 2004; RAND, 2004).

While Sanders and Horn (1998) have contended that value-added models control for outside influences, such as socio-economic factors, peers, and school factors, other researchers have cautioned against using value-added models to measure student achievement for teacher evaluations based on reliability and validity arguments (Braun, 2005; Kupermintz, 2003; Lockwood, Louis & McCaffrey, 2002). Braun (2005) cautioned that the problems associated with value-added measures cannot be overstated because scores at the extreme

ends of the scale are not reliable in indicating teacher quality. According to Braun (2005) to obtain proper estimates of teacher effects the ideal setting is

....a school system in which, for each grade, students are randomly grouped into classes and teacher in that grade are randomly allocated to those classes. Roughly speaking, randomization levels the playing field for all teachers in that each teacher has an equal chance of being assigned to any class. (p. 7)

According to Hill (2000), William Sanders seemed to caution against the use of scores to evaluate individual teachers. He suggested that releasing teacher scores publically would be inappropriate because the purpose of value-added models is for school improvement, not embarrassing teachers. Regardless of Sander's caution, the Los Angeles Times (2010) released individual value added scores of classroom teachers stating that the public had the right to know the performance of public employees. To add to the mounting list of complications associated with using value added models for teacher accountability is the fact that approximately 69% of teachers cannot be accurately assessed using valued added measures (Prince, Schuermann, Guthrie, Witham, Milanowski, & Thorn, 2006). Nevertheless, despite these limitations econometric models have continued to make inroads into teacher effectiveness accountability. Researchers have maintained that while econometric modeling for the purposes of teacher effectiveness is flawed methodologically, the measures were still significant for policy making because all measurements have inherent weaknesses (Ballou, 2005). Clearly, the growth of econometrics to investigate the impact of student academic growth has dramatically affected the notion of educator effectiveness for accountability purposes.

Recent policy changes regarding educator effectiveness went beyond linking economics and education and attempted to frame teacher and school accountability using statistical modeling with large-scale student achievement data sets as the key variable to hold individual teachers and schools accountable in an outputs version of teacher effectiveness. This definition analyzes the impact of student growth via standardized tests and traces that achievement back to schools and districts, teacher education institutions, and individual teachers to measure the effect these entities have on student academic growth and even on the long-term impact of students' earnings. The result of economic modeling on redefining the notion of teacher effectiveness is evident, and public policy resulting from statistical modeling of student achievement has been widespread. Public policy aimed at measuring educator effectiveness as defined by the outputs of student achievement via econometric modeling can be considered in three phases. Phase one is large units of analysis of edunomic outputs. Phase two is educator effects as edunomic outputs. Phase three is long-term student edunomic outcomes (see Table 1).

Output Phases for Accountability: Trend to Edunomic Outputs

Recent policy aimed at collecting and analyzing student outcomes has led to the creation of large data sets and subsequent models for analysis that are influenced by economics supporting the third definition of educator effectiveness as one that measures outputs. What is unique about the output phases is the unit of analysis employed to define educator effectiveness, units ranging from district level data to current models that narrow to focus on

individual teachers and long-term student outcomes. The phases demonstrate the migration to an increasingly accepted use of econometric models to define effectiveness and accountability. We use the term *edunomic output* to refer to the definition of educator effectiveness defined by econometric models. Other fields, such as physics, coined econophysics as a new area of research developed recently between economists and physicists to understand empirical and statistical modeling of financial markets (Mantegna & Stanley, 2000; Stauffer, 2004-5; Stanley, Amarala, Gabaixb, Gopikrishnana & Plerou, 2001; Gallegati, Keen, Lux, & Ormerod, 2006). Similar to education, econophysics emerged from the availability of large-scale data sets.

The use of econometric models is shaping the definition of educator effectiveness as a new form of output measure. The first phase of edunomic outputs focused upon large sets of data at the state and the local school district level for accountability. The second phase of edunomic outputs used the quantifiable student achievement outcomes from phase one and other data bases to connect an individual teacher to the growth of learning stimulated by that teacher. The third phase used edunomic outputs that spotlight the long-term outcomes of individual students, such as earnings and educational levels, to classroom teachers' effectiveness.

Phase One: Large Units of Analysis of Edunomic Ouptuts. In the first phase, edunomic outputs defining teacher effectiveness for accountability focused on large units of analysis. This phase used quantifiable outputs from state testing initiated by The No Child Left Behind Act (2002) that held states accountable for student achievement. Under this pioneering regulatory legislation for educational accountability, states were required to develop annual assessments in reading/language arts, math and science. For the first time, schools were mandated to publically report student achievement progress in degrees of proficiency. Additionally, school districts were obliged to report Adequate Yearly Progress (AYP) at the school, district, and state levels, including the student achievement on standardized tests for various subgroups. Large district-level data sets of student achievement in the form of standardized test outcomes were reported to the state and to consumers. Individual assessment results were available to students and parents, but the focus for accountability fixed upon aggregate school level data.

With its focus on large-scale institutional data sets as the unit of analysis, the outcome of the No Child Left Behind (NCLB) legislation represented the first phase of econometric regulation for educational accountability. Within this first phase of edunomic outputs, econometric models were introduced for measuring student achievement. Econometric models for measuring student academic success gauged AYP for NCLB (U.S. Department of Education, 2008). As policy makers and the public question teacher effectiveness, the institutions that prepare classroom teachers are also criticized for perceived deficiencies of quality. Teacher effectiveness output models measuring the impact of individual teacher education institutions on the achievement of graduates' students according to standardized tests have been developed. In effect, these new measures have equated the current model of K-12 teacher effectiveness for accountability with teacher education accountability. Student achievement outcomes, in part measured by standardized testing, are now being heralded as the measure of effectiveness in an edunomic output accountability model for both classroom teachers and the educator programs that trained them.

Both Tennessee and Louisiana currently use value added measures to rate their teacher education institutions. In these states, students' level of growth is traced back to specific

teachers which is further traced back to the teachers' preparation program, resulting in a rating of teacher education institutions that is available to consumers in those states (Noell & Burns, 2006; First to the Top, 2010). The Obama administration appears to be aiming for all teacher education institutions to join Tennessee and Louisiana in reporting how their graduates affect student learning outcomes with value added measures through the Higher Education Act (Sawchuck, 2012). Delaware, Florida, Georgia, Hawaii, Maryland, Massachusetts, North Carolina, New York, Ohio, Rhode Island, Texas and the District of Columbia are reporting or plan to report value added measures for their teacher preparation programs to the public (Crowe, 2011; Sawchuck, 2012). Indeed, the U.S. Department of Education (2011) proposed student growth of elementary and secondary school students taught by program graduates as one of three outcomes-based measures of effectiveness for teacher education programs. When student growth is the measure of teacher effectiveness as measured by econometric models, teacher education institutions may also be regarded within the first phase of econometric models for accountability.

Phase Two: Educator Effects as Edunomic Outputs. While No Child Left Behind (2002) introduced district and school accountability as measured by standardized test data, the Race to the Top competition introduced the second phase of quantitative models for teacher accountability. The Race to the Top legislation defined effective teachers as “teachers whose students achieve acceptable rates (at least one level of an academic year) of student growth” and provided substantive monies to adopt statewide policy, in part to evaluate teachers with student achievement data (U.S. Department of Education, 2009, p. 12). Since Race to the Top legislation was enacted, nearly half of the states have passed legislation allowing or mandating student achievement to become a component of teacher and principal evaluations (Piro, Wiemers, & Shutt, 2011). This trend toward regulation of teacher evaluations is gaining traction as a valid social and regulatory measurement of educational accountability. These quantitative measures have radically impacted society's views of teacher effectiveness and of the ways they should be held accountable. This second phase of outputs for accountability ties individual teacher effects to student achievement and personal teacher and principal evaluations. Race to the Top legislation advanced the use of student learning outcomes to measure teacher effectiveness by stating that “effective teachers and principals” were those who positively impacted student growth.

Reauthorizing the No Child Left Behind Act has a continued a focus on large aggregate school data but narrows the unit of analysis to teachers as well. The language in the reauthorization of the Elementary and Secondary Education Act (ESEA) states that Local Educational Agencies should “use multiple valid measures in determining performance levels, including as a significant factor data on student growth for all students” to evaluate teachers (U.S. Department of Education, 2012, p. 6). Additionally, turnabout principles for schools should control for the quality of the teachers by determining their effectiveness for instruction (p. 10). The act defines student growth as a change in student learning from time to time and regulates that high quality assessments must be used to quantify an accurate measure of that student growth over a full academic year or course (p. 8). Thirty-five states and the District of Columbia have received waivers for flexibility in requirements for NCLB (U.S. Department of Education, 2012b). One of the waiver requirements was to implement a state-wide teacher evaluation system. The second phase of teacher effectiveness edunomic outputs for accountability further narrowed the focus of analysis for teacher effectiveness outputs for

measuring accountability from large aggregate institutional data to measuring individual teacher effects on student achievement via standardized tests through econometric models.

Third Phase: Long-Term Student Edunomic Outcomes. The third phase of outputs for educator accountability follows teacher effects through growth models to predict the long-term outcomes of K-12 students in output measures that highlight the longitudinal effects of teachers on students' lives. Haycock and Hanushek (2010) stated that providing top quartile rather than bottom quartile teachers for four years would completely close the achievement gap between Caucasian and African American students. Harvard researchers used this focused unit of analysis and found that value-added teacher effects related to long term student outputs, such as higher education and the value of students' lifetime income. Specifically, they found that:

students assigned to high-VA teachers are more likely to attend college, attend higher-ranked colleges, earn higher salaries, live in higher SES neighborhoods, and save more for retirement. They are also less likely to have children as teenagers. Teachers have large impacts in all grades from 4 to 8. On average, a one standard deviation improvement in teacher VA in a single grade raises earnings by about 1% at age 28. Replacing a teacher whose VA is in the bottom 5% with an average teacher would increase the present value of students' lifetime income by more than \$250,000 for the average classroom in our sample. (Chetty, Friedman, & Rockoff, 2011, p. 1)

Horwitz and Ballou (2012) suggested that the Chetty, et al. conclusions may need further investigation as to the possible bias between high value added teachers and their students' long-term outcomes. As the debate continues, what is clear is that the unit of analysis for accountability has shifted in focus from large-scale units of analysis (Phase one), to individual teacher focus (Phase two), to the long term effects of a student's teachers (Phase three).

Summary of Three Phases of Edunomic Output

To summarize, in the first phase of edunomic outputs, federal and state level regulatory entities implemented a unit of analysis that focused upon data at the institutional level, such as school and district level or teacher education program level in K-12 education. In the second phase, there was a narrowing of the unit of analysis from broad institutional data to individual teacher data as regulatory bodies attempt to spotlight the role of teacher effects in student achievement outcomes. In the third phase of accountability using edunomic outputs, teacher effects are followed longitudinally through valued-added growth models to the most focused unit of analysis to date the long-term outcomes in student lives. No regulation has emerged from Phase three.

Table 1
Phases of Educator Effectiveness Edunomic Outputs for Accountability

Edunomic Output Phases	Unit of Analysis for Accountability	Sponsor	Organization Measured	Measure
First Phase	School Districts, Schools	Federal Government (No Child Left Behind and Reauthorization)	K-12	Standardized tests scores emerging from state standards
	Teacher Education Institutions	Federal Government (Higher Education Act) and States	Higher Education	Standardized test scores, traced from student to teacher to teacher education preparation program
Second Phase	Individual Teachers and Principals	Federal Government (Race to the Top; Reauthorization of No Child Left Behind)	K-12	Standardized test scores; other quality assessment data
	Individual Teachers	States (State of Tennessee; State of Ohio; State of Pennsylvania); Municipalities (Dallas, Milwaukee)	K-12	Standardized test scores of students traced to individual teachers
Third Phase	Individual Students	None to date.	K-12	Standardized test scores traced to individual teachers, then to long-term student outcomes (earnings, education, etc.)

Evolution Towards Political Accountability

Current accountability models frame accountability in terms of educator effectiveness through student achievement as edunomic outputs. This trend is buoyed by a shifting perspective of accountability informed from those inside the profession to a definition shaped by external perspectives and defined by economic and quantitative models. In what follows, we discuss the evolving model of educator accountability as it transforms from one of self-regulating autonomy to one defined by outside perspectives with the effect of regulatory policy.

McDonnell (2000) posited two models of accountability at the organizational level that serve as a framework for discussion. *The professional model* of accountability bases its claims

on members' expert mastery of a specialized body of knowledge. The complexity of the field in professions requires that application of that knowledge should be regulated by a code of ethics internal to the profession and by the voluntary groups representing it. In this view, the application of professional knowledge to individual clients' needs requires judgment, so it cannot be reduced to rules or prescriptions for practice; thus, professionals require autonomy from external political control in determining how the products of their expertise should be used. Until recently, those inside the profession defined the knowledge and skills necessary for effective teaching. Advocating that teaching is both an art and science, those inside of the profession argue that while specific teaching skills can be taught, a dimension of judgment and subjectivity remain key to effective classroom instruction.

In contrast, the *political model of accountability* holds that a larger public interest transcends the interests and values of any single class or person, and that its pursuit is best ensured if individual behavior is held accountable to the larger body politic. Dissatisfaction with the dominant professional model of accountability reflects the political model of accountability in education in the United States. Consequently, it argues not only that public employees' behavior should be constrained, but that the constraints should be externally imposed. The emphasis on edunomic outputs to define school and educator effectiveness is evidence of the transition to a political accountability model. Entities outside of the profession, in this case the federal and state government, imposed standardized testing as the ultimate accountability measure. As a result, effective teaching is now reduced to a value added score based on student testing. One of the results of an externally imposed definition of educator effectiveness is the shaping and constraining of practice to produce higher test scores. Outputs on standardized testing are increasingly seen as evidence of effectiveness. Educators did not seek the use of value-added measures to determine effectiveness, and recent regulatory policy efforts, such as No Child Left Behind and Race to the Top, emerged from the influence of accountabilities *outside* of the profession.

McDonnell's bifurcated professional versus political models provide guidance in defining the issue. Dualities, however, rarely lead to mutually agreeable solutions. Therefore, how can an integrated model address the new political accountability as well as recognize professional expertise? Professional accountability in education need not exist separately from regulatory political accountabilities. A more productive option between accountability systems is to value and influence each other in a reciprocal system where input from one system recharges and modifies the other, as in the case of open systems (Katz & Kahn, 1978). Currently, professional and political accountability models, built with the purpose of persuading people and gaining (or maintaining) power, are either in conflict or coexist without acknowledging the other system. In the language of systems theory, they are closed systems (Katz & Kahn, 1978). There is little exchange between organizations, and ideas about accountability are separated from the overall environment.

Professional accountability in education, often influenced by progressivism and student-oriented pedagogies, maintained the inward focus towards professional accountability. While outside influences mandated reform resulting in a new form of accountability, classroom teachers and administrators can provide valuable expertise and specialized knowledge to contribute to the complexity of defining and maintaining educational excellence. To do so, educators must seek ways to transform these valid dimensions of professional practice into models that have similar policy-leveraging effects and that mutually serve the political accountability model. Student achievement should remain at the forefront of

professional accountability. Expanded metrics to define student achievement from its current interpretation will capture additional values that are important to the profession and society. For example, in the reauthorization of the Elementary and Secondary Education Act (ESEA) language is proposed that school corporations use multiple measures to determine student achievement in teacher evaluation. Additionally, the Bill and Melinda Gates Foundation found that using three measures of outputs for teacher evaluation (value-added scores, observations and student feedback) provided a more balanced snapshot of how teachers would affect student achievement (Sawchuck, 2013). Involving classroom teachers and administrators in the creation, validation, and implementation of measures that contribute to the definition of student achievement and thus effectiveness is one way to recognize educator expertise as well as to support a broader definition of student success. Educators must continue to problematize the outputs measurement for effectiveness to include broader forms of student achievement and find ways to refine measurements in econometric models for political accountability that speak to student achievement informed by professional judgment.

Summary

Accountability is becoming synonymous with high-stakes consequences for teachers. The definition of educator effectiveness and the measures used to gauge that effectiveness have changed over the years and have encompassed input variables, process variables, and output variables. Recently, policy makers have embraced student testing as a primary metric for effectiveness, and as a result, edunomic outputs have become a lever for accountability purposes. Powerful statistical models influenced from the discipline of economics have been developed and evolved concurrently with public policy aimed at accountability for educators. These models fall into three phases with increasingly narrow units of analysis. In the first phase of edunomic outputs, federal and state level regulatory entities implemented a unit of analysis that focused on data at the institutional level. In the second phase, there is a narrowing of the unit of analysis from broad institutional data to individual teacher data as regulatory bodies attempt to spotlight the role of teacher effects in student achievement outcomes. In the third phase of accountability using edunomic outputs, teacher effects are followed longitudinally through valued added growth models to the most focused unit of analysis to date in the outputs measure of teacher effectiveness – the long-term outcomes in a student's life.

In a relatively short period of time, the professional model of accountability for educators has transformed from one of self-regulating autonomy to a political model defined by outside perspectives (McDonnell, 1994). Combined with increased accountability expectations for all professions in a time of economic turmoil, the allure of the possibilities offered by the various growth models is changing the education landscape. The future reach of econometric models to define educator effectiveness is unknown, but as researchers continue to refine and strengthen these methodologies, we can be sure of edunomic outputs as a significant dimension of educator effectiveness for many years to come. At first glance, it appears that traditional professional accountability models will be replaced by a political model led by perspectives defined by those outside of the profession, but to continue viability of a professional accountability, it is inherent for educators to discover the ways that incorporate and influence accountability measures. Educators must embrace such measures as

a key dimension of professional accountability to inform design, delivery, and evaluation of programs that prepare students for the 21st century.

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Small Group Dynamics in Cross-Cultural Collaborative Field Research: Voices from the Field

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The purpose of this study was to examine (a) factors that influence effective cross-cultural collaboration, and (b) challenges and issues that face researchers in cross-cultural collaboration. During the summer of 2010, 20 researchers and student interns from Ghana Education Service, Chicago State University (CSU-USA), Winneba University of Education, and Cape Coast University took part in a collaborative field study to assess the extent of use and impact of CSU Teaching and Learning Materials Program (TLMP) in Ghana. In small, mixed teams of up to five Ghanaian and US researchers, they were sent to different schools, in all 10 regions, covering up to four school districts per team, in all 14 school districts where the program's teaching and learning materials had been distributed. In teams, they conducted research activities together—observing classroom teaching, interviewing parents and teachers, and collecting end-of-year assessments. They also conducted social activities together—visiting landmarks, shopping, eating, etc. Their collaborative experiences were collected through a review of daily journals that all had to keep, a review of the program assessment reports, and telephone and email interviews with researchers. The factors that influenced positive and harmonious group dynamics in cross-cultural collaboration included (a) respect for the host community, (b) balance in team composition, and (c) reliance on the paramount role of the host country researchers. Challenges and issues that researchers faced included (a) language differences, (b) conflicting research methodology styles, (c) limited knowledge of the host country's social protocol.

Introduction

Research collaboration is a complex activity, whose success depends on many factors. Ales, Rodrigues, Snyder and Conklin (2011) advocated that the factors for successful collaboration include presence in the community, quality of the collaborative membership, relevant procedures and structures, consistent communication, realistic goals, and leadership with organizational and communication skills. In collaborative research activities involving different cultures, these factors are amplified. Those issues included communication (O'Brien, Alfano, & Magnusson, 2007; Lin, Chen, & Chiu, 2012; Oetzel, 2002), ethical issues in research design and data collection (Marshall & Batten, 2003), group dynamics (Peterson,

2002) and reflexivity/flexibility (Easterby-Smith & Malina, 1999). Reflexivity/flexibility is important because of the need to combine perspectives. Marshall and Batten (2003) state that issues will arise with cross-cultural research on the problems of power and politics within the cross-cultural management research teams, and when conceptions of research differ between countries that do not have a common cultural and academic heritage. The concept of reflexivity became important, because it was reflection along with considering implications and changes to practice.

When interaction factors such as communication are not adequately implemented, the success of a collaborative endeavor may be jeopardized. For example, an English word in one culture may not have the same meaning it has in the other. Some English words in “British” English will have a different meaning than the same words in the English spoken in the United States. Phrases may have different connotative meanings, as well. In conducting research inter-culturally and collaboratively, collaborators need instruction in the rhetoric of the cultures with whom they are working so that there is understanding (O’Brien et al, 2007). There are also concerns of ethical implementation and practice, acknowledgement status and authority, and acknowledgement of cultural practices that may be exacerbated when members exhibit a wide variety of diversity, such as differential social ranks, age, etc. (DeLucia-Waack & Donigian, 2004). These may also be connected to communication differences, hindering the productivity of the research. Credence is given to O’Brien, Alfano, and Magnusson (2007) for their impetus in developing programs that will “improve international relations, social relations and political understanding and trust in educational and cultural exchanges” (p. 1) through cross-cultural training.

There have also been many studies examining cross cultural group actions and interactions during the process of conducting research (Marshall & Batten, 2003; Easterby-Smith & Malina, 1999; Lin, Chen, & Chiu, 2012). Lin, Chen and Chiu state that, as a result of the world becoming a global village, more fields of study are international and more research is becoming borderless. This phenomenon is demonstrated by the number of research instruments and tests questionnaires that are translated from English into other languages around the world with the presumed expectancy that there may be satisfactory liability and the validity (Yi-Hsiu et al, 2012). Therefore, many interactions and collaborative ventures in the field of research have resulted in more interest in cross-cultural and international research (Sireci & Berberoglu, 2000).

Easterby-Smith and Malina (1999) emphasized the importance of flexibility. According to them, “researchers must prepare strategies for dealing with the unexpected, and these critically depend on the quality of the relationships among the actors involved” (p. 82). Here, again, building positive relationships and communication was emphasized. Further, Yi-Hsiu et al (2012) discussed issues and guidelines for cross-cultural research. They specifically mentioned construct bias, method bias and item bias. Construct bias (Yi-Hsiu et al, 2012) appeared when an item was measured and there was a discrepancy between the two cultures involved. Method bias (Yi-Hsiu et al, 2012) included the administration procedure, the physical conditions under which the instrument was administered and the administrators and the respondents’ familiarity with the instrument. They stated that item bias might be a concern because of wording or item content due to cultural differences.

DeLucia-Waack and Donigian (2004) published a text that was written primarily for the purpose of helping those who lead multicultural groups learn how to do so effectively. They listed self-observations one should take into consideration before becoming a member

or a leader of a multicultural group's work. These observations included evaluating individual multicultural issues, identifying how one's ethnic and cultural background might influence one's actions and responses as a member of the multicultural group and identifying how one's background contributed to one's view of how groups work.

A number of researchers (e.g., Geisinger, 1994; Van de Vijver & Hambleton, 1996) listed several suggestions for conducting cross-cultural research. Their recommendations included:

- attempting to minimize method and item bias as much as possible;
- avoiding slang, jargon and colloquialism in the writing of the items;
- making sure that the accuracy of the instrument and the equivalence of all of the language used is carefully examined;
- tailoring the physical environment for the instrument administration so that the venues are as similar as possible;
- interpreting outcomes and responses objectively; and
- providing documentation regarding how to use the assessment device and to collect reactions and feedback from the users, participants and respondents.

In addition, Easterby-Smith and Malina (1999) cautioned that conducting cross-cultural research has methodological and philosophical implications, which need to be carefully explored. They emphasized that, in conducting cross cultural studies, there needed to be flexibility along with careful management of the research team's relationships. In particular, the authors argued that the members of the teams must be conscious of power differences of the individuals, the contrasting views about research and the effect that these influences would have on the research. Finally, they pointed to "reflexivity as a valuable component of cross-cultural management research, especially when there was a need to combine insider and outsider perspectives" (Easterby-Smith & Malina, 1999, p. 76).

While the studies above described factors that influenced collaboration in research, in general, and collaboration in cross-cultural settings, in particular, there appeared to be a scarcity of research that examined group dynamics in cross-cultural research collaboration. Issues of differences that were approached and addressed in executing research procedures and learning to live together in prolonged times seemed to be under-reported. Notably, under-reported were studies that explored differences between collaborators from low-context and high-context cultures. The present study reported researchers' accounts of small teams of Ghanaian and American students and researchers who spent two summer months of field research in all 10 regions of Ghana. The two groups could be broadly described as representing a high-context culture (African) and a low-context culture (Western). As McSwine (2010; citing Hall, 1976) clarified,

Most Western cultures which use mono-chronic time are low context, i.e. cultures who view time in a linear manner and communicate internally by placing more emphasis on the literal meanings of words; while on the other hand High Context cultures which use time in a non-linear manner, place more emphasis on symbolic meaning and non-verbal communication through the use (...). This is particularly true of African and Native American culture. (p. 272)

Research Questions

The study attempted to answer two main questions:

1. What are the factors that influence effective cross-cultural collaboration?
2. What are challenges and issues that face researchers in cross-cultural collaboration?

Methodology

This report is primarily based on researchers' journal entries and interviews conducted with the researchers at the conclusion of the project. Journals were completed, both during the project and after the project. Prior to the combined project, during the Spring semester, at Chicago State University, six students from different colleges and departments registered for a 3-credit-hour orientation course in which they were taught to appreciate the Ghanaian culture. The instructor, also a member of the research team, taught the students about life in Africa, in general, and such do's and don'ts about what was going to be expected of them as how to effectively communicate, what to wear, what to eat, etc. Three weeks before departing, the six Chicago State University students and five CSU researchers spent nine days learning how to conduct field research. They learned and practiced interview and observation techniques. At the end of the training, the group was tested on the research skills and techniques, as well as, on the cross-cultural elements learned.

Once in Ghana, the lead researcher conducted a five-day combined orientation to field research for four Ghanaian students, three Ghanaian researchers, and all 11-member groups from CSU. During the orientation, students and researchers were given note pads in which they kept a journal of what they were doing and learning. Each evening, while conducting the two-month field research in all 10 regions and 14 districts of Ghana, teams had a telephone conference in which groups debriefed other groups about how their research was progressing. Difficulties encountered, whether methodological or cultural, were discussed. There were five teams. Each team consisted of both Ghanaian and American students and researchers. At the end of the project, team leaders summarized the reflections of their team members. In addition, open-ended questions were emailed to all students and researchers asking them to reflect on (a) differences and similarities between American and Ghanaian researchers in data collection procedures and communication, (b) cross-cultural problems they faced, and (c) thoughts about what should be done if the project was organized and implemented again. Telephone calls followed the questions.

The present report summarizes the reflections in students and researchers' journals, together with the responses to emailed questions during the Spring semester. Student researchers at Chicago State University took an orientation course whose purpose was to help all the members of the teams and they were asked to respond to questions, ponder and think about their experiences and then to share them. Team members were asked to respond to the questions and could respond verbally or in writing.

Results of the Study

This case study attempted to examine (a) factors that influence effective cross-cultural collaboration and (b) challenges and issues that face researchers in cross-cultural

collaboration. The findings below represent information shared by researchers in (a) a video recording of their experiences entitled “I see me in you,” (b) a pamphlet entitled “I see me in you,” (c) telephone interviews, (d) responses to questions posed via email, and (e) fieldwork reflections. Table 1 summarizes the number of responses by data collection method.

Table 1
Number of Responses by Data Collection Method, Site, and Period

Method/Instrument	# Participants	Site and Period
“I See Me in You” Student Video	13	After field work, Chicago and Ghana
“I see Me in You” Pamphlet	20	After field work, Chicago and Ghana
Responses to Email Questions	6	After field work, Chicago and Ghana
Telephone Interview	1	After field work, Chicago and Ghana
Field Reflections	18	During Field, Ghana, June-July, 2010. Each team met to share experiences of the day.
Researchers’ Post-Field Forum	20	Ghana. At the completion of the field work and the submission of the reports, the students had a day of post-field discussion and presentation forum.

Factors that Influenced Productive Cross-Cultural Collaboration

Based on respondents’ perceptions, several factors contributed to the success of collaborative work between the host and visiting teams. To the extent possible, entries from researchers’ journal are highlighted to stress their perspectives.

Clarity of Research Procedures

Two views about the task assignments emerged from the information collected. The first view was that the procedures were clear enough for all team members to execute them. Thus, researcher 5 thought that the interview protocol was excellent and also stated, “We were well trained before going out into the field”, and researcher 2 stated, “We were all university students and they all followed the same procedure.” The other view, which seemed shared by many team members, was that field work was successful because it was divided. Although the research coordinator trained all participants to be equally conversant in all aspects of field work, it appeared that most teams chose to restrict their members to some tasks. For instance, in Team 2,

The duties of collecting the information were divided such that we each performed the same duties at each of the sites. Group two, as a unit, discussed and decided on the procedure and format to follow in visiting the schools. There was group consensus and group ownership of the procedures to follow. The group’s decision was as follows: One of the Ghanaian members, due to language concerns, was exclusively assigned to interview the parents only and document the results. Therefore, that one person was the only one interviewing parents. The same person was assigned to stay with the children during the interview of the teacher. In this way, each group member became

an “expert” in performing his/her assignments and the group was able to gather the data in an expedient manner. Everyone took notes on their portion of the data collection.

Similarly, researchers 3 and 4 expressed that each team member had a designated task. The same person always performed the same task. Researcher 3 shared, “a Ghanaian student was assigned the task of interviewing the parents.” This assessment was echoed by researchers 1, 2, 3, 4, and 7 that “the duties of collecting the information were divided such that we each performed the same duties at each of the sites.” Work assignments seemed to come from team leaders. As researcher 1 observed,

We had someone assigned to do the teacher interviews. This person did all of the parent interviews. This was the same for the other assignments. Someone was assigned to do the parent interviews. Someone was assigned to do the administrator interviews and two people to do the class observation.

In the discussion section, an attempt will be made to interpret the implications for restricting work assignments to some individuals. Whether such arrangements enhanced or diminished collaboration will be discussed in the conclusions section. As an example, while all researchers seemed to enjoy the division of tasks, others sounded rather disappointed. Thus, researcher 2 reflected, “No, I would not make different expectations for the Ghanaians and the U.S. researchers, because each team member was expected to be responsible for their part of this project.”

Respect for the Host Community

All researchers who submitted reflections commented that the members of their teams, both visitors and hosts, were very respectful of the staff, parents and children with whom they spoke or interacted. From the orientation meetings and debriefings prior to or after road trips, researchers reflected the necessity to obey host communities’ customs. The awareness reflected the three months of cultural and sensitivity training the US students received, during which they learned some of the history, culture and customs. Researcher 8 stated,

I am overwhelmed by the way our team leaders and CSU researchers related with us, the Ghanaian counterparts . . . We had a shared interest, the children, and a shared experience, Ghana.

Researcher 5 stated,

As a researcher, I was most impressed with the care and the attention given to the ethical issues related to teachers and the parents during the interview process.

Others, such as Researchers 6, 9, 10, 12 and 15 discussed the impact of learning about and living in another culture. Learning about and living with another culture changed them by giving them a better understanding of others and themselves.

Team Building Activities

All reflections mentioned team leaders' emphasis on researchers creating a symbiotic relationship between host and visitors, and both with the communities in which they were conducting research. Researchers took the time to know one another. The members spent time socializing with one another at the end of the day and on weekends. At the end of the day, after visiting the schools, team members went sightseeing together and one group took a short trip in to the Ivory Coast. On the weekends, the student members socialized and went shopping together. Student members befriended and communicated, by telephone and email, with the members of the other teams, regardless of their individual cultures, on an almost daily basis. Notably, the student researchers from Team 2 had long conversations with members of Team 4 on a daily basis, reflected Team 3 leader. The conversations inquired of the other team's locations and experiences. Pictures of their locations and experiences were exchanged via their telephones. Researchers 1, 3 and 4 believed that the fact that the groups included both cultures increased the productivity of the group in the data gathering. The Ghanaians were also able to share and educate the U.S. members to help the latter gain a better understanding of the Ghanaian culture. Researchers 1, 3, and 4 stated that their members were hardworking and accommodating of the individual personalities and cultural differences within their group.

Balance in Team Composition

To the extent that it was possible, the research coordinator ensured that all teams had an equal number of researchers from the host and visiting countries. Team composition also took into consideration whether somebody on the team could understand the language(s) of the site communities. It also considered the balance of seasoned researchers and students on teams, as well as having male and female researchers. As teams 2 and 3 leaders articulated,

Having the males on the team was very helpful in negotiating prices for hotel rooms. The male team members were more familiar with prices and were able to communicate in non-English languages. The male team members seemed to be respected more in negotiating prices for hotel rooms. Even in cases where women seemed to be in charge, they seemed to gravitate to the male members and preferred to speak with them. Therefore, the male team members negotiated prices for hotel rooms. So, I think that males, regardless of the country in which the research is conducted should be a part of the team.

Thus, researchers 1, 2 and 3 were on teams that were evenly matched between Ghanaian and U.S. research members. The Ghanaians on each team were assigned to interview all of the parents so that the parents could understand. The parents usually did not speak English. Sometimes when the host country researchers did not understand the parent's language, the drivers assisted. Researchers stated that, as we collected the information, everyone was serious. In the evenings, when we discussed our findings, everyone was sincere and serious about the process and what needed to be done. Researchers 1, 2, 3, 4, 6, 12 and 20 stated that the experiences were very rewarding. Team two also consisted of two male and two female researchers.

Planned Research and Cross-Cultural Training

As the research coordinator shared, conducting a nationwide assessment of such a nationwide program as the Chicago State University's Teaching and Learning Materials Program (TLMP) required more manpower than the team of researchers assigned to the project in Ghana and Chicago. The materials had been distributed in all 10 regions and 14 selected districts of Ghana. Because the work involved an educational initiative, it appeared that future users of the materials introduced would enhance the impact on the community. However, as the coordinator remarked, the inclusion of college American and Ghanaian students meant investing in preparing them for participation in the assessment. Thus, training became the center piece of the assessment. Researcher 7 summed up this necessity as follows,

The breadth of the work necessitated the inclusion of Ghanaian and American students in research and field work activities. As a result, 10 of the 20 researchers with limited research background, or had little exposure to field research methodologies, including interview, field notes, and observations, joined the assessment team.

Researchers 3, 4, 5 and 12 thought that the training they received was very helpful in their field work. Students and seasoned researchers practiced such techniques as being participant and non-participant observers, note taking, asking introducing questions, probing questions, echoing, letting people talk, silence, etc. Team leaders learned how to manage teams, debrief team members, build team camaraderie, establish communication structures, communicate with authorities, manage funds, etc. Providing uniform training in field work methodologies, managing teams, respecting the cultures of communities visited, etc., became instrumental for the success of the project. Researchers particularly appreciated the training with regard to cultural differences to expect in the different parts of the country.

Flexibility

Working with mixed groups with different research and education backgrounds, on sites that even members of the host community may not have seen before, and using methodologies that may be different from field methodologies familiar to researchers, team leaders must consistently adapt their leadership strategies. Success in those conditions requires flexibility. Team 2 and 3 leaders summed flexibility as follows:

Initially, research tasks for a given day were given hours before we were to have our first meeting. After meeting with my team, the Ghanaian members of my team asked me to think about the language barrier that might occur even though the Ghanaian teachers and parents spoke English. Therefore, in collaborating with my team, assignments were changed. One of the Ghanaian members was assigned to interview all of the parents. The other Ghanaian member who recorded the number of TLMP books and materials that were being used was given time to perform that duty, so that he could assist the U.S. person who was assigned to interview the teachers.

Paramount Role of Host Country Researchers

Data gathering would have been extremely difficult if not impossible (especially with the parents) had there not been Ghanaian members on the team. However, being Ghanaian was not always enough; often, the driver seemed to be the ultimate go-to person on the team. “There were many times when the only Ghanaian on our team needed to translate the English language in the native tongue of the interviewee or reword the sentence to make it easier to understand in interviewing the teachers and parents was not one of the researchers. In those situations, we involved the driver,” shared Team 4 leader. The driver seemed to know the language and customs of the communities, and was very comfortable interacting with all the places visited. For all of the teams, the driver was more than just a driver. He was a tour guide and go-between. Whether it was purchasing items, explaining our research purposes to parents or teachers, cautioning researchers about custom expectations in the community, the driver was always there to help. Most importantly, as team 2 leader reflected, teams depended on the driver for directions. She explained,

Initially before the trip began, I explained to the driver that I preferred to go to the farthest most districts first and work our way back to Accra (the starting point). The driver then made all of the decisions as to which roads to take. Researchers’ teams consisted of five members. Three of the members were from Ghana and two members were from the U.S. One of the Ghanaian members was the driver who was assigned to take them to the various schools.

Problems and Issues

Coordinating so many researchers with diverse research skills and backgrounds, diverse value skills, diverse nationalities, and diverse expectations of the project could not proceed without problems. During the post-field reflection forum, a whole-day discussion, presentation and celebration event that took place after teams finished transcribing their data; the student researchers teased one another, using humor, about the differences they exhibited during the two months of travelling together, living together in groups, depending on one another for support and comfort. The jokes told were further elaborated in daily field reflections and responses to questions posed by email. The following were concerns expressed in data collected.

Language Concerns

While communication may not have been seriously impeded among researchers or with research participants, some English language differences and nuances were noticeable. As researcher 2 observed, there was a number of differences. He explained that the communication difficulties were not because the leaders were not communicating well. It was because of the subtle differences between British English and U.S. English. For instance,

The faculty in Africa would refer to the entire college here. We would say the faculty of education, the faculty of pharmacy. When American researchers used the word faculty, they meant ‘professor.’

Similarly, Ghanaian researchers were confused when their American partners used the word “students” to mean the children in elementary schools they were visiting, and then used the same word to mean people receiving an education at the college level. In Ghana, it was observed, “a student is someone in college. If they are not in college, they are called a pupil.” More importantly, researchers were intrigued by the spelling of some words both in the data collection instruments and the teaching materials. Thus, the interview protocols and observation checklist had words spelled in American English—program, enrollment, analyze, etc. By contrast, words written in pupils’ books had the British English spelling—colour, centre, practice, litre, etc.

Different Research Methodology Styles

Two of the non-negotiables during the training of researchers were that (a) they had to use a script to access the site and (b) had to conform to the interview and observation protocols. However, for several reasons, many researchers acknowledged that they did not follow the script or the protocols. Not using a script or following protocols might have worked for seasoned researchers. However, it could have made the field work rather confusing for the students. Indeed, the scripts, interview protocols and observation checklists were lengthy by design. They were designed to allow researchers to probe for different answers, nuances and perspectives.

Whatever the case, two issues emerged from the guidelines for data collection. The first concern was that, once teams were separated to go to their sites, there was no mechanism for ensuring that the data collection guidelines were uniformly followed. Thus, among those who were concerned by the length of the protocols was researcher 5 who observed, “The interview protocol was excellent; however, some of the questions were duplicated.”

Another issue that needed to be included in the researchers’ training in the uniform use of the protocols was that of incorporating researchers’ diverse research backgrounds, styles and skills, particularly with regards to interviewing and using observation checklists. When asked to reflect on differences and similarities between American and Ghanaian team members during field work, researcher 2 commented,

When questions were asked and the interviewees commented, the Ghanaian team member did not seem to use as many words to explain the question(s). The American researchers used long sentences and the Ghanaians did not.

Researcher 5 made the same observation.

Difficult Access to the Sites

Probably because each team had at least one Ghanaian researcher and a driver, there was a feeling that it was not necessary to devote a whole training session on the regions where researchers were assigned. However, several researchers observed that “more time should have been spent addressing the individual areas in which the groups were assigned” (Researcher 5). The assessment was echoed by team 2 leader, who noted,

Field researchers were concerned about going into certain areas. Communication needed to include more information about the different areas to acclimate the field researchers with what to expect.

Several researchers recommended that, on each team, there should always be team members who are familiar with the customs, culture and habits of those who live in that region. Teams need people who can watch and keep the other members from activities that might offend those who live there. As researchers 3 and 6 observed, “The U.S. members, although treated politely, were considered foreigners. Being in and being seen in a group with those who lived in Ghana gave our group more acceptance.”

Misinterpreting Group Dynamics

Researcher 5 expressed concern that training in group dynamics should have been integrated into the training. Training in group dynamics was needed to prepare the individual within the groups for hypothetical situations that might occur and with the cultural composition of the groups.

Inadequate Financial Support for Drivers

As reported earlier, the drivers, in addition to driving in very difficult, or unknown, terrains, were guides, interview interpreters, and go-betweens for interactions and transactions. They were an integral part of research teams. However, according to reflections, their heightened responsibilities did not seem to be commensurate with the living stipends they were given for the trip. Team 2 leader summed up the concern as follows,

There was much concern over the financial responsibilities for the driver. Teams were instructed that drivers were given all that they needed to pay for their food and lodging. However, the driver consistently stated that he did not have the funds to pay for lodging. Part of our orientation should have included XY (the owner of the company contracted to provide vehicles and drivers) speaking to all of us including the drivers, so we would have all been clear on our financial responsibilities. In this way, in a combined group, the team leaders and the drivers would be told our financial responsibility to avoid confusion.

Different Educational Background of Researchers

The assessment field work that teams of Ghanaian and American researchers conducted involved going into schools, interacting with teachers and classes in action, as well as administrations of education at the national, district and local level. While having an educational background was not a criterion in the selection of researchers, it soon appeared that a keen understanding of the schooling process was indispensable to collecting and interpreting assessment information. However, not all student researchers were education majors. Researcher 7 shared the concern in these terms,

Some of the students from the U.S. were students majoring in education. All of those participating who were from Ghana were students majoring in education, teachers and/or working in an area of education. The U.S. students were productive and cooperative, but we were conducting education research in schools. It seemed to show a lack of regard for the field to send people to observe classes and do the research who were not members of the field. I wonder if it sends a message that one's training does not matter when it comes to education, anyone can do whatever is necessary to complete the educational task.

Researcher 3 wrote a similar reflection.

Limited Knowledge of the Host Country's Social Protocol

Although U.S. researchers had had an orientation to the host country's culture prior to the field research project, it soon appeared that they were not prepared for all the customs and social protocols required for interacting with the host community, particularly their counterpart collaborators. Researcher 2 took extensive notes of the adjustments she had to make. In her reflections, she observed,

The Ghanaian society is a conservative, polite and formal society. There was obvious respect shown to people of authority, and older individuals. Women in authority, unless they have noted that they should be addressed otherwise, were referred to as 'aunt' or 'auntie' along with their first names (an example of this practice would be to be addressed as Auntie Cora). This practice was utilized also with those who were high ranking in the administration, whether older or younger. Older individuals were often called a 'mother' or a 'father and were addressed as such and seemingly treated with said respect. As a person with graying hair, I was many times affectionately addressed as 'mother.'

Team leaders from the U.S. also observed that there was differential treatment by gender. While travelling through the country, researchers 1 and 2 commented that there were times when it was much more practical to allow the males on the teams to become the leaders especially in areas where arrangements were needed which included money such as making hotel arrangements. This seems to have been the case in areas that were farther away from the large towns and cities.

Discussion

The purpose of this study was to examine factors that (a) influence effective cross-cultural collaboration and (b) challenges and issues that faced researchers in cross-cultural collaboration. During the summer of 2010, in small mixed groups, 20 researchers and student interns from Ghana Education Service, Chicago State University (CSU-USA), Winneba University of Education, and Cape Coast University took part in a collaborative field study to assess the extent of use and impact of CSU Teaching and Learning Materials Program (TLMP) in Ghana. Data were collected through (a) a video recording of researchers' experiences entitled "I see me in you," (b) a pamphlet entitled "I see me in you," (c) telephone

interviews, (d) responses to questions posed via email, and (e) fieldwork reflections. Seven main factors were identified as influencing positive group dynamics in cross-cultural collaboration. They were:

- 1) Clarity of research procedures;
- 2) Respect for the host community;
- 3) Incorporation of team building activities;
- 4) Balance in team composition;
- 5) Planned research and cross-cultural training;
- 6) Flexibility; and
- 7) The paramount role of host country researchers.

Among the main challenges and issues faced by researchers, the following seven were identified:

- 1) Language concerns;
- 2) Conflicting research methodology styles;
- 3) Difficult access to the sites;
- 4) Understanding group dynamics;
- 5) Integration of drivers in research activities;
- 6) Different educational background of researchers; and
- 7) Limited knowledge of the host country's social protocol.

These self-accounts above do not translate all the interactions, self-doubts, discoveries, and mutual appreciations that the two groups of researchers experienced together. Indeed, careful preparation for the collaboration seemed to be rewarding. However, it was also very obvious that members of one culture cannot prepare for working with members of another culture just through an orientation. Most learning and knowledge came, not from the orientation sessions, but from the field trips. Mutual misconceptions of the ideas that some of the researchers had concerning the other culture did not dissipate until many days in the collaboration, or did not dissipate at all.

The U.S. student researchers attended an extensive in-service orientation course about the customs, mores and the educational system in Ghana. Of the six U.S. student researchers, four had never travelled out of the U.S. They were reminded that they were first and foremost representatives of Chicago State University (CSU) and visitors in someone else's domain. Upon arriving in Ghana, the CSU students met the Ghanaian students and together both groups attended a daily in service that met for a week. During this second orientation, the students learned about each other as individuals and about each other's country and culture. The researchers were learning to be good acquaintances and friends.

As in any collaborative endeavor, there were surprises and other issues for which the training had not prepared the researchers. Those issues included communication (O'Brien et al, 2007; Lin et al, 2012; Oetzel, 2002), ethical issues in research design and data collection (Marshall & Batten, 2003), group dynamics (Peterson, 2002) and reflexivity/flexibility (Easterby-Smith & Malina, 1999). Reflexivity/flexibility is important because of the need to combine perspectives. The differences in data collection procedures—the host researchers asking fewer questions than the protocols required, and the visitors attempting to go to the full

length of protocols—could be one reflection of the high-context (African) and low-context (American) cultures that Hall (1976, as cited in McSwine, 2010) described. The issue may not lie in the effectiveness and complementariness of the different approaches, but in the extent to which either site can make use of the data collected once field work is finished.

As reported earlier, the same factors that influenced effective collaboration between the two groups of researchers were also areas that needed improvement. For instance, through team building activities, team members built camaraderie, which, in turn, enhanced collaboration, trust, and productivity in the pursuance of gaining data and the confidence of respect from the team members and respect for all of those who were involved in the study (researchers, Chicago State University and Ghanaian educators, parents and children). At the same time, it soon appeared that some teams were not balanced to allow for the same number of host and visiting researchers, or had male researchers to be go-betweens when accessing sites or conducting transactions in host communities. Likewise, teams could have been balanced, but may not have had enough time to review linguistic differences that had been slipped into the data collection instruments.

More importantly, effective collaboration seemed to require a same commitment to the research and its significance. While all aspects of mental and academic preparation was done during separate and combined orientations, it could not allay for differences in educational backgrounds of the researchers, and help team leaders anticipate how to effectively include the *drivers* as indispensable research team members who would serve as guides, interpreters and go-betweens. On one hand, team leaders had to ensure that student researchers were receiving the field training they were seeking. On the other hand, team leaders had the added responsibility of ensuring that the two groups of researchers—host and visiting—collaborated, and did not put the burden on the other. Such an awareness would have helped team leaders in facilitating group dynamics in such a way that all would participate in all aspects of the data collection process—all asking questions, all taking notes, and all interpreting the data. As it turned out, some student researchers from the visiting group soon became uncertain and deferred the interviews to the host team members. Such an arrangement, as practical as it was, might have made it difficult to give an accurate interpretation of the data for the visiting teams, particularly in light of the above-referenced preference for the host-community research members for asking sparse questions or taking scarce notes.

One of the lessons from the collaborative experience is that the host community's culture and society were more formal than the broader American culture. For instance, in meetings, the use of the right hand as the only correct manner in which materials are transferred from person to person, was one of the customs taught at the orientation, but which had not sank in. Likewise, the formality in addressing one another, or the strict requirement that when travelling through the country, two female researchers were not allowed to sleep in the same hotel room, were some of those customs one never grasps until one is exposed to the culture.

One other lesson seems to be that communication and conscientious acknowledgement of cultural sensitivities are very important to effective collaboration. Although the teams seemed well synchronized, there were unintended snafus that needed to be addressed. Some pictures needed permission before taking them. Sometimes words and actions needed to be carefully thought about before using, because although both spoke English, the words and actions might not have the same meaning. These items were carefully noted, especially due to the high regard and friendliness that all team members felt toward each other.

Despite inevitable issues and concerns faced by researchers from both groups, there was exceptional cooperation among and within the teams. In the future, all should be done for the teams to be balanced. Four of the teams were evenly numerically coordinated, but not necessarily matched as far as the status of its members. There were also persons, on teams, who were highly qualified and conducted research for their respective university. Roles and responsibilities within the teams were flexible and respected in order that any efforts were taken not to offend any of the team regardless of status of the person or the responsibilities that needed to be addressed. In conducting research with persons of various levels of status, part of the sensitivity training must include impressing upon the members the importance of not allowing their status or personality to interfere with the research. One of the primary objectives of any group collaborative research is to avoid “group communication pitfalls” (Burtis & Turman, 2006, 15). A group pitfall is anything that might reduce a group’s effectiveness or decrease its desired outcomes.

All in all, each team member needed the other to fulfill the objectives of the research. The Americans needed to learn the customs and mores that they would be expected to follow while in Ghana. While travelling through the countryside, the Ghanaian’s knowledge of the various languages and ability to speak and translate was essential in conducting many of the interviews. The American researchers, having completed an extra training session on the research methodology prior to going to Ghana, were more familiar with the assessment instruments and the process to follow in conducting the research. In the future, there appears to be a need to expand the training to both groups. That training should both provide technical skills and multicultural sensitivity.

Bowman (1996) modeled the multicultural training and stated that there are three levels of interpersonal awareness. They are to know yourself, know about others as far as their culture, and to know one’s own lifestyles and values. One needs to know how one relates to others. In other words, one needs to examine one’s own culture and ethnic values and racial identity to understand oneself as a person, examine one’s beliefs about group work and the inherent assumptions within the Eurocentric view about group work, learn about other cultures in terms of what they value and how it may affect group work; and develop a personal plan for group work that emphasizes and utilizes cultural diversity. Atkinson, Kim, and Caldwell (1998) stated, “misunderstandings that arise from variations in communication ... may lead to alienation within the group . . .” (p. 203), an assessment that was echoed by Greeley, Garcia, Kessler, and Gilchrest (1992).

Conclusion

Cross-cultural studies will continue to attract the attention of researchers. In conducting this type of research, researchers need to be cognizant of the construct, method and item bias that could affect the results of the study (Lin et al., 2012). We examined the methodological and philosophical implications of cross-cultural management research, comparing a field study conducted collaboratively in the United Kingdom and China with Teagarden and colleagues' survey-based international study (1995). Our findings confirm those authors' calls for flexibility in cross-cultural research and for careful management of research team relationships, but also highlight the significant effects that power differences and contrasting views about research can have on the conduct of cross-cultural research.

There are times when the role of researcher is put aside and the researcher becomes a representative of third party entities which may be the financial authorities supporting the research. Sometimes there are occasions where the goals and objectives of the research are changed to meet the requirements, which may not have been in the original proposal, of third party entities. The goals may then become more of a political nature. If pictures or videos are taken that may be used to pursue goals not a part of the originally approved research, care must be taken that the permission of all involved is given. There were areas of consideration in conducting the cross-cultural research that were not part of the original research thoughts and processes. Third party entities whose goals and objectives are also good and worthy may be infused into the project. Their goals and activities need to be handled separately in order to protect the integrity of the research project.

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Strategies to Maintain School District Financial Solvency: Illinois School Business Officials' Recommendations

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The purpose of this study was to identify financial management strategies that school business officials have found most successful in achieving school district financial stability. To accomplish, 208 Illinois school business officials in six counties: Cook, DuPage, Kane, Lake, McHenry, and Will counties, excluding Chicago School District 299, were asked to complete a qualitative online survey. One hundred and thirty-five completed responses were received, which resulted in a 65% response rate. In addition, three survey participants, who had lead their school districts from financial difficulty to solvency, were interviewed to further probe survey responses. The study identified 122 financial management strategies that school business officials should consider to maintain financial solvency in school districts. Those mentioned most often included communicating effectively with stakeholders and updating financial projections regularly. Respondents also noted the importance of:

- *Managing collective bargaining agreements/proposals and their implications;*
- *Creating and adhering to long range financial plan;*
- *Creating and maintaining balanced budgets;*
- *Staying current with economic information at the local, state, and federal levels;*
- *Meeting with their service providers to discuss possible cost reduction options;*
- *Becoming active in Illinois ASBO, which provides professional development and networking opportunities to school business officials nationwide;*
- *Spending time gaining a more thorough understanding of their districts finances before making any changes; and,*
- *Collaborating with stakeholders to ensure sound decision making occurs.*

Introduction

In recent years, Illinois school districts have struggled to balance revenues against expenditures. In fact, a growing number of school districts find themselves forced to make expenditure reductions that often compromise the quality of education (People for the American Way, 2013). As a result of fiscal constraints, school districts must focus on providing the best educational program and services within the complex financial constraints of today's economy. The school business official (SBO) plays a critical role in meeting these

challenges. Musso, past executive director of the Association of School Business Officials International (ASBO International), describes the role of school business officials as follows:

The school business official must be visible in the community; be able to articulate the school district's instructional vision and mission, understand staffing patterns and their affect upon the educational process, progress towards student achievement and school improvement; as well as have a complete understanding of the school systems support structure including facilities, maintenance, technology, nutrition services, transportation, purchasing, budgeting, finance & accounting and taxing structures and laws. (Agron, 2007, p. 65)

According to the *School Business Office Job Description Handbook* (American Association of School Administrators, 1994), school business officials are responsible for budgeting, accounting, finance, purchasing, risk management, buildings and grounds, food service, transportation, data processing, staff management, human relations, and employee contract negotiations. As fiscal leaders, school business officials are largely responsible for school finance as well as most, if not all, other non-instructional school functions. Because of the significant role school business officials' play in a school district's financial solvency, their perspectives on financial management strategies are important for school administrators to understand.

Statement of Problem

Most Illinois public school districts today struggle to maintain financial solvency. The Illinois State Board of Education's Annual Statistical Report (2010) stated that Illinois school district expenditures have continued to outpace revenues. Illinois state superintendent Christopher Koch noted that limited and late payments from the state have contributed to school districts' weakened financial positions (ISBE, 2011). Over the past two years, the state of Illinois has at times owed school districts more than \$1 billion dollars. As a result, many districts have been forced to make tough expenditure reductions to balance their budgets (Evans, 2011). While many districts were successful at reducing expenditures and presenting balanced budgets, some districts had to plan for deficit spending. According to the Illinois State Board of Education's website, more than 10% of school districts reported operational deficits for fiscal year 2010 budgets (ISBE, n.d.).

While school districts across the country have felt the financial impact of the nation's recession, it is anticipated that the decline in state funding will continue for several years (Howard, 2011). According to the Illinois ASBO Past President Mohsin Dada (2009a), it is important to recognize that school business managers must consider future events that may impact school district budgets over the long term. In order to plan successfully, business officials must utilize effective leadership strategies.

School districts need highly skilled school business officials if they are to succeed in these difficult financial times. What would be especially important these school business officials is to understand financial management strategies that other school business officials have found most successful in achieving school district financial stability.

Financial Crisis in Illinois Schools

According to the Center for Public Education (2010), the United States' economic recession has not only taken a toll on the country's economic output, but has affected almost every classroom in the nation as well. While many school districts were able to reduce expenditures with minimal student impact between 2008 and 2010, more severe expenditure reductions were required in most districts for the 2010-2011 school year. These included reducing staff and extracurricular activities, including the number of courses not required for graduation; eliminating summer school; eliminating preschool programs; adopting a four day school week; eliminating field trips; reducing instructional programs; and cutting professional development for teachers and staff.

Many of Illinois' eight hundred and sixty-eight school districts are struggling to provide quality educational programs due to the Illinois State Board of Education's failure to fund its obligations in a timely manner (May, 2011). The Illinois State Board of Education has begun to make significant cuts to education funds in an attempt to balance its own budget (Dada, 2009a). Many Illinois school districts that depend on general state aid and other state grant programs are suffering as a result (Dada, 2009a). For the 2010-11 school year, the total reduction in state funding for education was approximately \$170 million dollars with the majority of the reduction coming from General State Aid (ISBE, 2011). Other notable reductions included \$17 million dollars for the Early Childhood Grant program and the elimination of teacher and principal mentoring grants (ISBE, 2011a).

Due to the financial problems in Illinois, schools statewide are often forced to make decisions that lower the quality of education (PAW, 2004). May (2011) believes the disastrous condition of Illinois' financial status has forced many school districts to reduce programs and services. Many districts have enacted massive layoffs as part of their solution to the state crisis. According to May, the impact to schools includes: (a) fewer course offerings, (b) increasing class sizes, (c) fewer extracurricular and sports opportunities, (d) fewer supplies and educational materials, and ultimately (e) greater difficulty in preparing students to meet or exceed testing scores established under the No Child Left Behind legislation (2011). Until Illinois is able to balance its budget, Illinois schools will struggle with staff and program cuts to balance budgets (May, 2011).

Local School Districts

Locally, Illinois school districts revenues have been negatively impacted by a poor housing market. According to Dada (2009a), "while local property tax is the main source of revenue for Illinois schools, falling property values and home foreclosures have had a negative impact on education" (p. 5). During the 1990s, school districts reacted to increased enrollments by planning for rapid growth. In Community Unit School District 300, for example, enrollment grew at a rate of 421 students per year from 1995 – 2010 (Matkowski, 2011). Early in the next decade, the stability of the housing market came into question. By 2008, real estate growth became stagnant at best.

According to Matkowski (2011), "In 2005, 48,699 new housing 'starts' were recorded in Illinois" (p. 12). In 2010, that number fell to 7,925. The decline in the housing market and subsequent loss of property tax revenue led to significant changes in financial, staffing, and capital plans for schools. Some districts in the midst of major capital projects found

themselves without the resources to staff and operate new or renovated facilities (Dada, 2011). Further, some were contractually obligated to continue with projects even if these facilities were no longer needed. During such challenging economic times, school administrators must be thoughtful and careful so they develop budgets that reflect the realities of today's environment (Matkowski, 2011).

Dada (2009a) noted that school resources have been burdened by the property tax extension limitation law (PTELL), unfunded mandates, increased needs in special programs, and higher health care costs. These, each in their own way, limit school district revenues.

Theoretical Framework for the Study

This descriptive research study was guided by Fiedler's contingency model for leadership effectiveness. The study sought to identify management strategies successful school business officials employ as they manage their school district business functions as well as help make decisions to maintain a sound school district financial position. According to Fiedler (1967), group performance is a multifaceted phenomenon affected not only by the leader's personality but by the group members' abilities and motivations, the tasks involved, and the situational determinants. Fiedler theorized that the performance of a group is contingent upon the appropriate matching of leadership style and the degree to which the leader has control and influence in a particular situation (Fiedler, 1967; Fiedler & Chemers, 1974). In other words, Fielder (1967) suggested that effective leadership is dependent on the leader selecting the most effective leadership style given the situation.

Fiedler suggests that organizational success is contingent on the leader's ability to make the best decisions at any given time (Fiedler, 1967). Further, Fiedler notes that leaders who understand the group members' abilities and make the best decisions under the given circumstances are most successful. Fielder theorized that effective leadership is tied to three variables: the leader's abilities, the group's abilities and motivations, and consideration of the situational factors (Ayman, Chemers & Fiedler, 2007; Fiedler, 1967).

Fiedler's model (Ayman, Chemers & Fielder, 2007) can be useful in explaining how successful business officials are able to maintain financial solvency during challenging economic times. School business officials who have the knowledge and skills necessary as well as an understanding of how to lead in a variety of situations have the most potential to be successful leaders. This implies that school business officials who are best at evaluating situations and consistently make the best financial decisions for all stakeholders will be most successful at maintaining financial solvency in school districts.

Research Question

The primary research question was:

What strategies do successful Illinois school business officials recommend to help school districts maintain financial solvency?

Significance of the Study

Limited research exists to date on the role of school business officials. Phillip's (2003) identified a major void in literature related to the role of school business officials during his study of Texas school business officials. Phillip noted a compelling need to investigate further the leadership role of school business officials.

More and more school districts are struggling to remain financially solvent. They depend on school business officials to make sound financial decisions. In Illinois, these problems are especially acute as school districts struggle to balance their budgets. As school districts grapple with financial problems, they must depend on their school business officials for financial leadership. This study is especially important for all school business officials because it will provide important information that can use as they seek to keep their school district financial viable in these tough economic times.

Research Design

This descriptive research study utilized a qualitative research method (Johnson & Christensen, 2008). Marshall and Rossman (2006) noted that qualitative methodology is most useful in evaluating trends in social phenomena. A web-based survey was employed to identify financial management strategies school business officials employ to maintain financial stability in their schools. Interviews were also conducted to provide an increased understanding of the school business official's role in maintaining financial stability. Through these interviews, the researcher probed the perceptions of several successful school business officials on the strategies employed to lead their school districts from financial difficulty to stability.

Survey

A web-based survey was developed and used as one source of data. Thomas (2003) noted the following:

Survey methods involve gathering information about the current status of some *target variable* within a particular *collectivity*, then reporting a summary of the findings...A *target variable* is a specified characteristic of a group or collectivity....A *collectivity* is a group of things in a specified kind that becomes the focus of a survey. (p. 41)

The survey instrument consisted of two sections. In Part I, participants provided demographic information including years of professional experience as a school business official, educational background, school business official certification, school district enrollment, and the school district's percentage of low income students as reported on the 2010 Illinois District Report Card.

In Part II, school business officials were asked to respond to the following open ended question: What strategies do you recommend to help school districts maintain financial solvency?

To ensure face validity, the researchers reviewed each survey item to ensure proper alignment to the research question. Two certified school business officials were provided

with the research question, the proposed survey, and a survey validation form. They were asked to assess the survey for alignment to the research question. They were also asked to rate the efficacy of the instrument itself. Finally, the certified school business officials reviewed the directions and prompts within the survey instrument for clarity and accuracy. They were encouraged to offer suggestions which were reviewed by the researcher and dissertation chair. After modification, the survey was submitted to the University Institutional Review Board, which approved it.

Interviews

The interview questions focused on the research question. These questions were also reviewed by the researchers and the Executive Director of Illinois ASBO to ensure alignment with the study's theoretical framework and the research question. The interview questions were also submitted to the University Institutional Review Board.

Survey Participants

This study included school business officials from six counties in Illinois: Cook, DuPage, Kane, Lake, McHenry, and Will Counties. A listing of school business officials residing in these counties was obtained from Illinois ASBO. Districts that did not employ school business officials were excluded from the study. Chicago Public Schools District 299 was excluded because of its size.

Interview Participants

This study sought to identify the financial management strategies of successful school business officials. In order to gather relevant data, purposive sampling was elected. In purposive sampling, research participants are purposely selected because of their perceived perspectives (Esterberg, 2002). Creswell (2007) defines purposive sampling as a strategy used to select participants who can properly inform an understanding of the central phenomenon of the study.

In order to identify qualified interview participants, a subject matter expert, the Executive Director of Illinois ASBO, was asked to identify five school business officials who met the participation selection criteria. The criteria were:

- Illinois certification as a chief school business official;
- Five or more years' experience as a school business official in Illinois;
- Successful experience leading a school district from financial difficulty to solvency for a minimum of three years; and,
- Convenience of access.

All five were contacted and the first three to agree were selected.

Data Collection

Survey

An electronic letter was sent to each chief school business official. The letter included an overview of the study and its purpose, the rights of study participants, the guidelines for voluntary participation, and assurance that all responses would remain confidential. Within one week of the initial contact, emails were sent soliciting participation of school business officials for the study. Follow up emails were sent encouraging participation from those who had yet to respond.

Interviews

Interviews were conducted to allow participants to provide more detailed responses for interpretation and analysis (Creswell, 2007). Interviews provide an opportunity for reflection and understandings to be shared. Because conducting interviews requires a degree of systemization for multi-case studies, the researcher conducted follow up interviews with three successful school business officials (Marshall & Rossman, 2006). While the interviews were initially structured to address the research question, participant responses were clarified and probed through additional questioning.

Timeline for Data Collection

Data collection occurred from January 2012 to March 2012. The electronic survey was confidentially administered in January. The survey period closed in February. Follow up interviews were conducted in late February and March.

Data Analysis Methods

An integrated analysis of the qualitative data was completed. Data analysis consists of preparing and organizing data, analyzing the data, and representing the data in figures and tables as well as discussion (Creswell, 2007; Johnson & Christensen, 2008).

Survey

Demographic data and responses to open-ended questions were analyzed by the researchers. Trends that might appear in contextual categories were identified from the qualitative comments of the study participants. A practicing school business official assisted in the analysis. Both the researchers and the practicing school business official independently analyzed the data then shared their independent findings. From this process, common patterns and themes were identified.

Interviews

The researchers also sought information on financial management strategies through interviews with select school business officials. During this phase, the researchers looked for common patterns and themes within the interview transcripts that addressed the research questions. Additional probing questions were used to provide additional insights into the participants' recommendations on role responsibilities most critical to financial success as well as strategies school business officials recommended their colleagues consider in maintaining school district financial stability.

Data Presentation and Analysis

The study sought to identify strategies school business officials recommend that other school business officials should consider as they work to maintain financial solvency in their school districts. More specifically, this descriptive study examined the following question:

What strategies do Illinois school business officials recommend to help school districts maintain financial solvency?

Demographic Information

In Part I of the survey, school business officials were asked to provide some demographic information. Nineteen percent of respondents reported that they have been school business officials for 1-4 years. Another 31.7% reported having been school business officials for 5-10 years. While 34.5% reported that they have been school business officials for 11-20 years, only 14.8% of respondents reported being school business officials for more than 20 years. Based upon the reported data, 93.6% of survey respondents were certified as school business officials in the state of Illinois.

In the demographic information section, participants also reported the highest degree they had earned. Eighty-one percent reported a master's degree. Another 7.3% indicated their highest degree as education specialist (Ed.S./CAS). Finally, 11.7% of respondents reported a doctorate. Also, participants were asked if they held a Masters of Business Administration, of which 36.6% did.

Respondents also reported their school district's student enrollment. Only 2.8% reported school district enrollments between 1-500 students. In contrast, 31.5% indicated student enrollments of 501-2000, while 42.7% reported 2001-5000 students. Finally, 23.1% served 5000 or more students.

Respondents provided the percentage of low income students as reported on their 2011 Illinois School District Report Card. While 25.4% said their low income student populations were 10% or less, 40.1% fell in the 11%-39% range. Another 16.9% said that they had between 40-59% low income students, 9.9% reported low income student enrollments of 60%-75%, and 7.7% reported more than 75%.

Open Survey Question

In section II of the electronic survey, survey participants were also asked to provide recommendations to other school business officials on how to maintain financial solvency in their school districts. School business officials were asked the following open-ended question, “What school business official responsibilities do you believe are most important to maintaining the financial solvency of a school district?” School business officials provided a total of 127 responses, which are summarized in Table 1. It is worth noting that many responses included multiple recommendations. The recommendations are listed from most to least often cited.

Table 1
School Business Officials’ Recommendations to Maintain Financial Solvency by Frequency

Response Category	Number of Responses
Communicate openly with stakeholders (transparency)	26
Timely and regular updating of five year financial projections	17
Manage collective bargaining agreements/proposals and their implications	13
Create and adhere to long range financial plan	12
Create and maintain balanced budgets	12
Collaborate with stakeholders to ensure sound decision making occurs	11
Establish and maintain a fund balance policy for reserves	9
Communicate and evaluate programmatic needs annually	9
Manage revenue and expenses to build sustainability	9
Seek out inefficiencies and opportunities for cost containment	8
Tie expenditure growth to revenue growth (rate of inflation)	6
Be hands-on with staffing allocations, attrition provides opportunities	6
Network with other professionals (i.e. Illinois ASBO)	4
Be accountable and proactive	3
Establish trust with Superintendent, Board of Education, and community	3
Manage or avoid deficit spending	3
Maintain adequate cash flow to meet district needs	3
Explain the effects of compounding as it relates to salary and benefits	3
Join consortiums and cooperatives to obtain better pricing	3
Minimize available debt and associated costs	3
Tie business decisions to the strategic plan of the district	3
Evaluate vendor contracts	2
Competitively bid projects	2
Maintain and implement a regular maintenance schedule	2
Assessment of every contract	2
Bring in outside consults to increase credibility and validate data	2
Hire knowledgeable staff	2
Focus on financial oversight; resist attempts to be financially irresponsible	2
Stay current with legislative and financial issues	2
Look for creative ways to increase revenues and decrease expenditures	2
Stay current with best practices, trends, and legal updates	2
Pay attention to detail	2
Avoid penalizing cost centers for under execution of their budgets	1
Do not sell bonds for regular operating expenses	1
Be prepared for flat state and federal funding	1
Outsource operations whenever possible (food service, transportation, etc.)	1
Expect the unexpected and budget accordingly	1
Cut budgets in non-academic programs first	1

Increase knowledge whenever possible, be open minded	1
Implement a wellness policy to reduce benefit costs	1
Be the expert in your district	1
Do not recognize more than two payments for any state categorical grant	1
Minimize union strength	1
Plan for the worst case scenario	1
Ensure a finance committee is active and in place	1
Budget based on anticipated revenue and staff based on enrollment projections	1
Manage those things within your control	1
Tie program expense to student or operational outcomes	1
Analyze budget variances	1
Ensure budgetary controls are in place	1
Clearly articulate the district's financial vision	1
Develop capital expenditure projections	1
Maximize investment returns	1
Be realistic in budget preparation	1
Ensure expenses promote student achievement	1
Ask questions	1
Don't try to do it all, delegate appropriately	1
Fight all PTABs	1
Perform cost-benefit analysis on current and future programs	1
Utilize zero based budgeting	1
Prepare all budgets and forecasts on a modified accrual basis	1
Strive to improve operations, never be satisfied with your performance,	1
Develop a monthly financial checkup/routine	1

Although the school business officials offered a wide variety of suggestions, six were mentioned most frequently. Communication and financial projections were mentioned most often. One respondent noted that, "School business officials must communicate with all stakeholders while taking these steps: plan, review, adjust, plan, review, adjust, plan, review, adjust." Another emphasized that school business officials should, "Continuously collaborate with stakeholder, maintain transparency in finance and operations, be innovative, and communicate, communicate, communicate."

Another stated that:

There is only one basic strategy. Over the long haul, you cannot expend more than you receive. There may be years when this is necessary and your projections show you can ride out the storm...but over the course of many years you must align your revenues and expenditures.

Respondents also noted the importance of:

- Managing collective bargaining agreements/proposals and their implications,
- Creating and adhering to long range financial plan,
- Creating and maintaining balanced budgets; and,
- Collaborating with stakeholders to ensure sound decision making occurs.

Finally, no substantial differences were identified based on demographic characteristics.

Interviews

The interviews were also conducted with three successful school business officials to develop a more in-depth understanding of the school business officials' recommendations to maintain financial solvency. All school business officials had at least ten years of experience. All served as school business officials. Of the three, two worked in Pre-K-8 districts while one was employed in a Pre-K-12. Two interviewees had experience serving as school business officials in multiple school districts. Finally, two interviewees were male and one was female. During the follow up interviews, each interviewee was asked, "What strategies do you recommend other school business officials employ to maintain the financial solvency of their school districts?" By probing topics identified by survey participants, the researcher sought to develop a more thorough understanding of SBO responses.

While a variety of recommendations were discussed, the most often mentioned was the importance of school business officials developing a deep understanding of their school districts' financial data. They noted that this was critical in understanding the ramifications of any financial actions the administration and school board members were considering. One interviewee suggested using financial projection models to assist with training school board members on what will occur if the district maintains the status quo. Another respondent suggested stressing the importance of understanding the climate of the community as financial decisions are made. The respondent stated:

...understanding the climate of your community, that's a big one. Understand the climate of your community, get out and meet your mayor and village managers, find out what they know and what their perceptions are, be the liaison if you will, of the whole community, because you do represent the whole community.

Another strategy identified was developing community partnerships. One suggested that school business officials investigate opportunities to partner with other governmental entities to share costs. The school business official said:

We do a lot of partnerships with our village. For example, the village helped us with our football field. In our community, we don't have parks. In fact, we barely have play lots so we run our fields in conjunction with the village. We also partnered with the village to renovate our auditorium a few years ago. Instead of buying new seats we refurbished the existing ones. We also added air conditioning. I don't know how many times I've received phone calls from people inquiring about what we've done and why we've done it.... And it's because we have a partnership with our village and together we made the best decision for the whole.

Two interview participants discussed the importance of staying current with economic information at the local, state, and federal levels. As one respondent stated:

I think business officials must keep up with what is going on in Springfield, because at any moment, they can decide, or make pronouncements that they

are going to fund a particular program or not fund it and to what level. I also think they need to keep an eye on what's going on in the economy, not just nationally but specifically the local economy...be aware of the fact that the majority of the homes up for sale in your district in foreclosure or not, you know, that sort of thing. I think they also need to be aware of changing demographics in their school districts.

Another suggested that school business officials meet with their service providers to discuss possible cost reduction options. Using transportation services as an example she said:

Whether they have in house transportation or they contract transportation, I think that's a big thing to sit down with either your in-house person or your outside contractor and discuss how they can tighten up routes.....we know transportation funding has been cut dramatically, just because it's an outside contractor doesn't mean you shouldn't be having these face to face conversations ... for example, if there are 5 buses now can we get them down to four?

Interviewees also recommended that school business officials become active in Illinois ASBO. Interestingly, this response was identified by survey respondents also. Illinois ASBO provides professional development and networking opportunities to school business officials nationwide. A participant stated:

Get involved with Illinois ASBO. No one knows it all and if someone comes in thinking they do, they are fooling themselves. You can't know this business without having help and being able to contact people and saying how do you do this or how do you do that. All the networking that happens at Illinois ASBO conferences and workshops is invaluable.

Two interview participants urged new school business officials to spend time gaining a more thorough understanding of their districts finances before making any changes. One stated:

For new business managers, what I would try to do is learn as much as possible... you don't have the full comprehension yet, so don't try to set as your goal as something dramatic as soon as you come in. Learn as much as possible. Really dig in and know the finances of the district. Know where the pitfalls are and where the money is being spent... get to know your board members, get to know your superintendent, get to know your administrators and staff.

Another had the same message but focused on school business officials without educational backgrounds. He stated:

If you are new to the district don't try to overhaul it in two days, it never works. I think the folks that aren't in schools and come in from outside businesses want to run it like a business from the get go, and that's not a bad

strategy long term, however it's not as though you have inefficiencies. Most school districts have very few staff in terms of running the operations on a day to day. It's a matter of training, not only staff but board members and everyone else.

While there were many strategies suggested by the survey participants, all three interview participants identified the use of financial projections as a key strategy to solvency within their district. One school business official stated, "The five year projection model helps me and my board realize the global picture...based on long term projects and long term goals, the projection model increases our understanding of the future financial impact of our decisions." Several respondents suggested using an independent consultant to present projections in efforts to increase the validity and credibility of the data presented to stakeholders. One noted that there are, "companies that provide financial projections and work with multiple school districts so they are able to compare what we're doing to other school districts." Another stated simply "there is a credibility factor there for boards...they seem to pay more attention if financial professionals or attorneys are presenting information."

Another strategy utilized by a survey participant was issuance of working cash bonds to increase revenue. The participant recommended hiring an experienced bond consultant to explore all potential bond options. At the same time, the school business official suggested reducing expenditures for district support services.

We made cuts every year along the way....then the state got behind in distributing what they owed us so we cut even more to balance the budget. The Board of Education and the Superintendent all agreed that we would live within our means.

The respondent confirmed that budget reductions that affect the classroom should be minimized. He stated, "we cut lot of support staff...we had 29 administrators and are currently down to 24 with plans to cut another position next year....we're pretty much bare bones." He said that his district also focused on reducing personnel in areas such as counseling, social work, and psychology. The respondent went on to discuss his staff reduction philosophy by noting that any initial reductions should be in areas that do not directly impact educational programs and services.

Another important strategy identified was passing of a referendum. The SBO noted that additional revenues generated through a property tax increase can resolve school district financial problems for many years. She stated, "We were able to capture more of the approved levy earlier in the first couple of years before the economy got so bad, so we were able to take better advantage of that rate increase."

Finally, she recommended that school business officials thoroughly review every existing contract and renegotiate those that offer the promise of reduced expenditures. A school business official said, "We looked at every contract...copiers, utilities, food service, lawn care, snow removal, you know, down the line so that every dollar that can be put into the classroom is put into the classroom rather than on the entire periphery." She stated that a prudent approach to expense management is important to maintaining financial solvency.

Similarities and Differences

Recommendations for school business officials from survey participants and interviewees were also compared for similarities and differences. While recommendations for school business officials surveyed were more general in nature than those of the interview participants, two common recommendations were identified by survey and the interview respondents. First, they discussed the critical importance of completing and monitoring of financial projections on a regular basis. Second, school business officials discussed the value of communicating openly with other business managers, especially by networking with Illinois ASBO members, to ensure consideration of as many strategies as possible.

Summary and Conclusion

This study focused on strategies school business officials should consider to maintain financial solvency in school districts. Participants identified several key strategies, which have important implications for school business officials who want to maintain the financial stability school districts especially in tight economic times.

The most widely recommended strategy was for school business officials to make long-range financial planning an integral element of their regular responsibilities. They need to look beyond the current school year by developing of five-year financial projections if they are to anticipate the potential impact of any administrative or school board decision or policy on the district's long-term fiscal stability.

Another recommended strategy was for SBOs to take an active role in employee collective bargaining. As school boards negotiate collective bargaining agreements with employee groups, they need to understand the long-term financial implications of any decisions they make. SBOs should be active members of the school board team because they have the knowledge and perspective needed to provide critical financial data as well as interpret the impact of any contract provisions under consideration. Without the advice of the SBO, school boards will not have an adequate understanding of the implications of both board and employee proposals, which can lead to agreements that erode the financial stability of the school district.

SBOS should work to create and maintain balanced budgets whenever possible. Although this may not be realistic in all instances, their leadership in stressing the importance of a balanced budget will help school boards understand the future financial impact of any decisions they make. This will result in more effective long-range financial management. Another recommended strategy was to collaborate with stakeholders to ensure sound district decision-making. SBOs are in the unique position to help stakeholders understand the financial impact of any suggestions these stakeholders may offer. Often individuals or groups propose programs and services without understanding the broader financial implications. School business officials should be active partners with stakeholders to ensure that they understand the financial impact of any ideas they are considering. By doing so, SBOs can help school board make sound education decisions more often within constraints of available district resources.

Participants noted the importance of guiding the school board to establish a fund balance policy. This will discourage unnecessary spending. It will create a natural check and balance on district spending while making it easier for boards of education to say no to

requests for new programs and services. It will also encourage the efficient management of revenues and expenditures.

Finally, SBOs were encouraged to seek out inefficiencies and cost containment options. School business officials need to take a leadership role in establishing a structure and process for continuous assessment of district spending. Such proactive leadership will offer increased potential to minimize district inefficiencies while controlling expenditures and improving the school district's financial position.

Over the past 171 years, the role of school business officials has evolved from paying bills to serving as critical members of school district senior leadership teams. Now more than ever, school business officials are vital to the success of schools (Thompson, Wood, & Honeyman, 1994). As school districts are expected to be increasingly responsible for student achievement, school business officials are key individuals in helping school boards support quality education by leading efforts to operate with limited funding. Regrettably, as the economy continues to struggle, the fiscal challenges school business officials will face will only be greater. Their participation will be more critical than ever as many Illinois school districts struggle to maintain financial solvency during challenging economic times.

The perspectives of Illinois school business officials can be particularly valuable to other school business officials facing financial difficulty. The findings of this study provide school business officials with important financial management strategies they can use to maintain school district financial solvency.

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How REAL Teachers and Professors Learn: Threshold Crossing and Concepts in Professional Learning

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This paper describes preliminary findings from a study of teacher and professor learning. Using narrative inquiry, the author interviewed expert teachers and examined the process of teacher and professor learning. The study focused on how teachers learn as a form of self-study in informal action research. The study examined (1) the challenges requiring resolution during the early stages of a career, (2) experiences of struggle, (3) the principles and practices leading to expertise, and (4) the long lasting effects of teacher and professor learning on professional practice. Using threshold theory (Meyer & Land, 2003/2005) and a model of informal action research called REAL (Noonan, 2013), the author illustrates how the experiences of expert teachers during the early phases of their career result in permanent changes in practice and the development of a professional identity.

Introduction

Attempts to learn and master a profession often involve significant struggle. Try recalling an experience when you struggled to learn and felt temporarily unable to make progress, despite considerable effort applied to the task. The experience likely remains in memory because of the difficulty posed by the challenge and the moments of doubt surrounding the event. If you rose to the challenge and learned an important concept or procedure, you likely felt transformed by the experience. The breakthrough allowed you to make a significant advancement in a discipline or profession, and perhaps enhanced your identity and feelings of competence as a capable learner or increasingly knowledgeable professional. These critical, and often transformational episodes of learning represent substantial milestones, leading to greater expertise in a domain or profession.

If recalling an event brings back a painful memory, the source of unhappiness may be from the failure to learn and a temporary or permanent lost opportunity to progress in a field. Now, instead of transformation, the experience represents a setback, a turning point in a journey, and a potentially damaging experience on self-concept and future aspirations. Failed attempts may lead to disengagement from learning and result in a departure from a role and profession.

As a reflective practitioner, I recognize how early experiences affected my career as a K-12 teacher, administrator, and later, professor in higher education. A few years ago I decided to investigate how critical incidents and learning during the early stages of a career

lead to greater expertise in the profession. I reviewed literature on teacher learning and expertise, developed a conceptual framework as background for my study of “expert teachers”, developed a research question, received approval to conduct research from the University of St. Thomas Institutional Review Board, and interviewed expert teachers to learn how their early experience affected their professional growth and adoption of effective pedagogy. I share some of my findings and analysis in this paper to illustrate several important principles, including the experience of challenge and struggle during the early years of becoming a teacher/professor, the process of learning as teacher-directed informal action research, and the adoption of effective pedagogy to routinely experience success with learners in K-12 and higher education.

As background for this paper and my study, I first provide a brief description of a promising new theory on learning, called threshold crossings and concepts (Meyer & Land, 2003/2005). Threshold theory informed my study and guided the development of interview questions. After describing threshold theory, I then follow with a brief discussion of methodology. I share my findings and analysis regarding the experience of professional learning in the last section of my paper. The analysis illustrates how teacher and professor learning leads to expertise.

Threshold Crossings and Concepts

Meyer and Land (2003/2005) introduced the concept of “threshold crossings and concepts” in learning to bring attention to the challenges and struggle associated with acquiring certain types of knowledge needed to make continued progress in a discipline or field. A “threshold crossing” refers to a “stuck point” in learning, preventing continued progress (Ellsworth in Meyer & Land, 2005), often requiring multiple attempts to learn. Threshold concepts represent important concepts, principles, and procedures predictably inviting struggle and requiring mastery to progress in the discipline or domain. Acquisition of new knowledge allows learners to continue the journey.

When struggling with difficult concepts, learners enter a “liminal space”, a place and period of uncertainty and transition (Turner in Meyer & Land, 2005). The liminal state occurs before the crossing and requires resolution either through successful mastery of knowledge allowing continued progress, or in some unfortunate cases, failure to learn, disengagement, and abandonment of goals; two words, threshold and crossing, offer a glimpse of the experience. When learners experience a threshold crossing, they journey to a new place, moving through and past a previously locked door. The threshold represents the entry point to future learning.

Successful threshold crossings result in “new knowledge and subsequently a new status and identity within the community” (Meyer & Land, 2005, p. 376). Threshold crossings and concepts conceivably apply to learning at any age or stage. I decided to examine how threshold theory applied to professional learning and describe the methodology used to conduct my study next.

Research Question and Significance

I adopted the following question to conduct my study: How do early experiences in teacher/professor learning result in increased expertise? I added the following related

questions to address three identified areas in my study: What “triggering events” and “nagging problems” in practice result in deep learning and substantial change in professional practice? How does learning progress? What principles and practices do expert teachers routinely use to ensure effective learning?

Understanding the experience of teacher learning during the early years may help mentors gain insight regarding the difficult emotions and typical challenges experienced, while attempting to master important concepts associated with effective teaching. Failure to learn also causes disappointment and an “exit” from the profession, a troubling and stable trend in K-12 education (Marlow, Inman, & Betancourt-Smith, 1997). Understanding how master teachers learn and use “expert pedagogy” may help others see the importance of encountering and mastering certain types of knowledge to foster student learning and teacher success. As I started my study, I looked forward to learning the answers to a few simple questions: What do the best teachers do? How did they learn? I set out to find the answers using qualitative research.

Methodology

I adopted narrative inquiry (Marshall & Rossman, 2011) in qualitative research to conduct my study with the goal of learning how personal experience and learning informs practice and fosters expertise. A discussion of my research strategy using narrative inquiry includes a description of the general purpose of inquiry, and strategies used in conducting collaborative interviews with expert teachers.

Narrative Inquiry

I adopted narrative inquiry as a primary data collection method in my qualitative study of teacher/professor learning (Marshall & Rossman, 2011). “The method assumes people construct their realities through narrating their stories” (p. 153). Narrative inquiry encourages a collaborative approach between participant and researcher, valuing individual participant experience through the selection and recall of stories.

The success of narrative inquiry depends on the relationship between participant and researcher.

Narrative inquiry requires a great deal of openness and trust between participants and researcher: The inquiry should involve a mutual and sincere collaboration, a caring relationship akin to friendship that is established over time for full participation in the storytelling, retelling, and reliving of personal experience. It demands intense and active listening and giving the narrator full voice. Because it is collaboration, however, it permits both voices to be heard. (Marshall & Rossman, 2011, p. 153)

The collaboration also requires researcher knowledge (in this case) of effective pedagogy to identify pedagogies in use (detected during the course of the interview) for in-depth discussion and reflection. The interview format shifted between participant storytelling and analysis and mutual dialogue about the subject of research. This style of narrative inquiry helped me uncover assumptions informing practice as well as identify and describe the principles and practices adopted by expert teachers.

Participant Selection

I selected participants with notable accomplishment in teaching based on my personal knowledge and observations of candidate expertise, participant-reported ratings of meritorious performance based on externally administered student evaluations, and notable professional accomplishment based on regional or national awards for teaching and scholarship. I selectively recruited and interviewed candidates widely regarded for expertise in teaching in *my ongoing study of expert teachers*. The sample included three females and two males with 20 to 40 or more years of experience in K-12 and/or higher education. I also adopted the interview protocol and developed reflective exercises for students enrolled in supervision and professional development courses. I share the results of two expert teacher interviews and one story submitted by a candidate in a principal preparation program.

Interviews with Expert Teachers/Professors

After informing the participants of the voluntary nature of the study and obtaining consent (IRB approved), I conducted and recorded in depth interviews with participants ranging in length from 90 to 120 minutes. I followed McCracken's (1988) guidelines for the "long interview", initially discussing teaching background and experience to establish trust and familiarity with the research topic. Then I used some version of the following "prompt" to gain access to participant stories and facilitate a discussion of learning.

Phase One: Tell a Story

Consider a time in your career when you experienced a powerful episode of learning in your role as a professional educator (teacher/professor), causing you to learn an important lesson and change your role as a teacher or your professional practice.

Briefly sketch the circumstances, nature of the challenge, the way you eventually resolved the difficulty, and the new learning you now claim as an important component of your professional practice. If someone or something helped (or hindered) you during this time, please describe his or her role and contribution or the process facilitating or hindering your development. Please keep the identities of individuals involved in your story confidential; you may change a name, use initials, or refer to individuals by role.

Additional Questions Based on Participant Response:

1. How did the experience challenge you to experiment, problem solve, or make changes in the way you usually accomplished your work?
2. Please describe your feelings during the early stages of the experience.
3. What did you do to solve the problem? Describe your actions, attempts and results.
4. How did this new learning cause you to change your thoughts and ways of accomplishing your professional work?

Phase Two: Debrief the Story

As a result of this experience, nominate and describe a theory, principle, guideline, rule, practice, or value you adopted as a result of this experience. For example, how did the learning cause (1) changes your ideas or attitudes about students and learning, and/or (2) result in an enduring change in practice (retreating to “old” ways now seems impossible)?

How did this experience foster growth based on increased mastery of concepts, more sophisticated use of strategies, feelings of confidence, and/or a new or greater understanding of your profession and role?

During the interview, I used a prompt to facilitate storytelling, and then followed the direction established by the participant in the selection of story and analysis. After story completion, I facilitated continued reflection of the story and its effects on professional practice by asking more specific questions regarding pedagogy. This included descriptions of underlying assumptions of student learning based on participant response. The “debriefing” conversation following storytelling took new turns as participants reflected more deeply on the experience and their learning in response to my more specific questions or reflections about the methods described.

When I detected a “favored” approach to teaching during the interview, such as experiential learning, I then engaged participants in reflecting on the aims and value of a particular approach. I asked about the assumptions regarding student learning and goals, the roles of teachers and students, the structure of the lesson, and management of resources. These questions and participant explanations, such as how they debriefed lessons in experiential learning, allowed me to see expertise in action. Participants shared knowledge about the reasons for selection of pedagogy and its application.

Reflecting back to participants on their personal pedagogy, I asked questions pertaining to a specific method to dig out the principles and practices associated with expert teaching. I avoided “leading” participants to a particular position or methodology by using participant language and examples to prompt more in depth discussion. This style of narrative inquiry helped me to unlock the knowledge and methods used by expert teachers/professors.

I also used additional strategies to elicit stories pertaining to the research questions, drawing on my personal knowledge of participant strengths and notable accomplishments. I listened carefully to participant stories, and then engaged participants in dialogue and reflection on the lessons learned. I learned about the “triggers” for new learning, participant attempts at inquiry and change, and the subsequent adoption of principles and practices associated with effective learning and teaching.

I reflected on the experience with participants, as a researcher-colleague capable of interpretation and collaboration on pedagogy. I relied on my ability to detect the pedagogy described by participants *as interviews progressed* without attaching labels or jargon. This style of narrative inquiry promoted a rich discussion of pedagogy, and helped uncover the strong connection between teaching/professor learning and expertise. I briefly describe coding methods and strategies for analysis next and follow with findings.

Coding and Analysis

I transcribed interviews and returned to my research questions to divide my study into three sections. I first noted the nature of the challenges encountered by expert teacher early in the career and developed categories to represent these experiences. I organized the “triggers” into the following categories: (1) difficult or unsatisfying encounters with students, (2) nagging problems in practice, and/or (3) accidental discoveries in teaching (Noonan, 2013).

I located and reflected on participant descriptions regarding their multiple attempts to resolve a difficult issue, including their initial attempts and results and adoption of a new “attitude or approach” to learning, (Evans as cited in Noonan, 2013). I checked for the enduring value of a practice by asking participants to describe how they used the principle or practice in their current practice.

I analyzed data using a model of informal action research I created to represent learning as a form of informal action research. The model, called REAL (an acronym describing phases of teacher learning; Noonan, 2013), shows the initial experience, struggle, and the permanent changes in professional identity and practice as a result of learning from experience.

I hoped to see and establish the relationship between “networks of understanding” (theories informing practice) and “chains of practice” (actions adopted by expert teachers; Kinchin, Baysan & Cabot in Noonan, 2013). The story exchange alerts listeners to how the experience changes assumptions and later actions adopted in professional practice. I used threshold theory (Meyer & Land, 2003/2005) to illustrate how a challenging and memorable learning event resulted in improvements and innovations to practice.

I kept track of what participants said regarding their experiments and reflections on how they refined an approach once adopted and routinely put it to use. I noted how the discovery of a particular approach led to specialization in a personal pedagogy (Noonan, 2013). Finally, I catalogued principles and practices associated with effective teaching, such as “active learning”, “student engagement,” and “relationships” as threshold concepts in teaching (Meyer & Land, 2003/2005).

Applying threshold theory to teacher and professor learning raises some interesting questions. For example, what threshold crossings/concepts required mastery and resulted in greater professional expertise (as a process, not an end point)? How did the mastery of certain experiences lead to a distinguishing approaches and notable accomplishment in teaching? What areas of “specialization” or expertise serve as hallmarks of a personal pedagogy? Look for answers to these questions and more in stories told expert teachers with experience in K-12 and higher education.

The data for the first two stories came from in depth interviews with two expert teachers with over 40 years of experience in K-12 and higher education. I then added a short story submitted by an expert teacher as his reflection on teacher learning in response to a class assignment. I obtained his permission to use the story for this article and selected it to illustrate how a creative assignment might inspire discussion of learning in professional preparation programs. All three stories illustrate threshold crossings and concepts in teacher and professor learning.

The success of qualitative research depends on the rich data and the narrative truth found within the description and subsequent analysis. The stories told by three expert teachers provide plenty of evidence of struggle, change, and increased expertise. I share their

stories and analyze how teacher and professor learning led to greater expertise. I begin with the first story of T's experience in his role as a high school social studies teacher, and later service as a higher education professor.

T's Pedagogy: Teacher Roles, Effort, Student Engagement, and Relationships

T moved away from home and accepted his first teaching assignment in another state, moving to a city undergoing considerable strife and change. Racial tensions in the school and community entered T's classroom as he struggled for control and student attention during his first few years of teaching. T's knowledge of class management came from a retired colonel, who served as his supervising teacher and mentor. The colonel emphasized "control" and "consistency". T described the first direction he received from the colonel:

The first thing he said to me when I came was, "Look, if you tell the kids anything, you do it. If you tell somebody you're going to throw them through that door, you better do it. And that's how he ran the ship.... So it was pretty easy to step into his classes and student teach, because there weren't really any particular problems.... If he said to do something, they did it because they knew what would happen if they didn't in terms of him. So, it was very different to go to a school where that wasn't the case at all.

T's solo flight as a new teacher in a struggling school proved a different story. He struggled to gain control and remembered wondering about the students' desire to learn, thinking, "What's wrong with these kids? They just don't want to learn." Feeling disappointed about the lack of student engagement, T felt drained and complained bitterly to his father about his students. His father's response surprised him.

I went home one weekend... to the farm. My dad had an 8th grade education. I was just really complaining about [my students], saying, "Dad, these kids are terrible, and went on and on. He [my Dad] was very quiet and finally he just said, "T, look, the parents send you the best kids they've got. If they had better kids, they'd send you better kids. It's your job to teach them. Go figure it out."

You know, and that's kind of like a rude awakening, because you want sympathy and all you're getting is like, "Hey, you're the teacher.... It got me thinking, okay, what can I do. And so I'd say that's the first [lesson] I learned was that you've got to adjust to the situation, to figure it out and to understand the culture. Even though I had all these classes on culture concepts and this, that and other thing, it was academic, now it's real. And so I really started trying to put forth effort to figure out what were they interested in, how could I make a connection between civics... or whatever, how did that connect with them?

This single episode and reflection ultimately led to three significant changes in T's professional practice: T (1) changed his attitude regarding the role and responsibilities as a teacher, (2) applied effort to improve his teaching, recognizing a lackluster student response meant he needed to change his approach, and (3) used student interests and culture to make

connections between student experience and the course content. T adopted an “issues approach” to teach subject matter, searching for the value and connection between the course content and student learning. A skilled collector of resources, T read widely to inform his practice. He collected articles, books, and stories to engage students in learning, using a discussion approach to teaching.

If a class does not go well, T takes responsibility. “I try to figure out, what went wrong? How did I screw up on this one?” He generally assumes the culprit involves the poor design of learning activities. He analyzes whether the activities offer enough interest, connection, or application, and then redoubles his effort to improve student participation and learning. T quits trying to improve things only after the class ends, taking responsibility for student learning up to the last minute. He avoids blaming students and instead changes strategies or activities to improve learning. He exerts considerable effort in his preparation and structuring of learning activities. He gauges his success by student response, including whether they participate in discussions and seem interested in continuing the conversation after the class ends. He never gives up on student learning.

A student “who gave him fits”, taught T about relationships. T served as a junior varsity basketball coach and the difficult student held a position as a freshmen player on the team. T “started working him on that angle, about basketball. I had something to talk to him about, he could relate to, and then I could tie in the athletic stories about the coach here and there.” T’s effort paid off. The student changed and supported T in his classroom, and things got better. T reflected on the importance of caring:

The old saying, that people don’t care what you know, until they know that you care...[,] that kind of became a real thing.... Students really need to know you care and want the best for them. And the trick was to get them to see maybe you did know a little more than they did about what was best for them at that time.

Eventually T’s discovered his mission: “To create an environment where people can grow and develop and be the best they can be. I tried to follow that in terms of my family, and with my kids, my teaching, my administrative work - to try to create that kind of environment.”

I asked T when he stops trying to improve things. His answer: “When I walk out of the last class, that’s when I say, ‘Okay, I’ve done my best.’” T’s summarized his dominant philosophy of teaching in a few sentences: “Teaching isn’t teaching, if students aren’t learning. It’s only if students are learning something that you’re really teaching, so you’ve got to make that connection.”

T accepted responsibility for student learning and applied considerable effort to achieve success. He emphasized preparation and effective use of resources and engaging students in learning by using the course content to make connections to contemporary issues and student experience. Emphasizing nurturing relationships, T earned the respect of his students by fostering good will in a caring community. He measured his success based on student interest and learning. T’s early experience led to a lifelong specialization in his “personal pedagogy”, a style of teaching representing a unique approach to student learning (Noonan, 2013).

I analyzed T’s learning experience and developing expertise using a model of informal action research called “REAL” (an acronym representing a learning process; Noonan, 2013). I developed the model to represent a “typical” pattern in teacher learning as described in

studies of experiential learning and action research. I tested its usefulness in interviews with teachers, identifying how movement through the process led to considerable change in knowledge and practice. I first introduce the model and then analyze T's experience next.

Becoming a REAL Teacher and Professor: Analyzing T's Story

Growth in professional knowledge and gains in expertise occur through continuous reflection and learning as part of action research, often conducted informally and routinely within "classroom" practice. Action research, "operationally defined as a professional research tool that empowers teachers in monitoring and analyzing personal practices with the intent of expanding their knowledge base and enhancing instructional prowess" (Schoen, 2007, p. 215), leads to changes in practice. To conduct action research, educators learn how to master "technical skills" in collecting data and analyzing "the contextual adaptations required to affect change" (p. 215).

In other words, teachers or professionals use their knowledge and experience to reflect on their actions and its effectiveness, ultimately making changes in practice. These encounters and struggle within an active practice to make change represent encounters with threshold concepts (Meyer & Land 2003/2005) and serve as a primary source of professional learning. A graphic illustration of this process, represented by the REAL model, shows the progression of teaching learning leading to expertise. See Figure 1.

Teacher learning occurs when teachers (1) read (assess and interpret) and reflect on how students experience learning, (2) experiment using inquiry and action research, (3) adopt new approaches and attitudes, and (4) learn continuously to improve and innovate (making it **REAL**). REAL illustrates the *experiential* and *experimental* nature of teaching with the central focus on student learning and improvements to practice. (Noonan, 2013, p. 22)

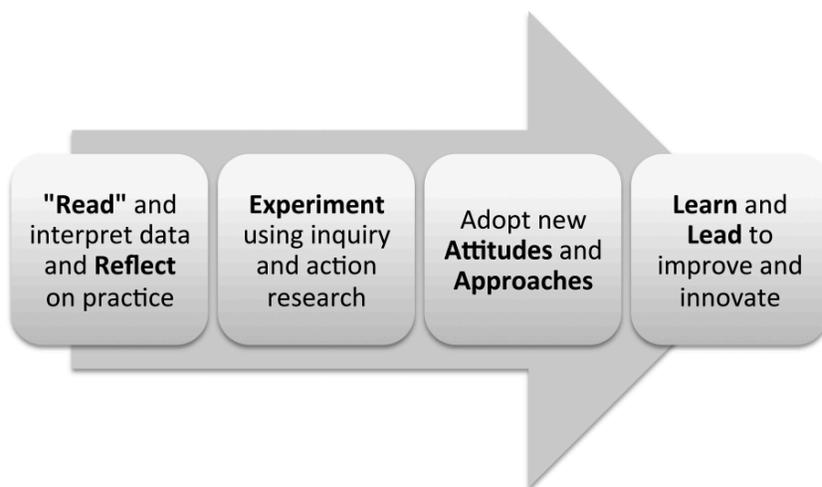


Figure 1. The REAL model of teacher learning (Noonan, 2013, p. 23)

Analyzing T's story using the REAL model shows how T resolved a nagging problem in practice involving his struggle for control and inability to engage students in learning. T initially blamed students for the trouble, until his father's remarks offered an alternative view

of his circumstances. His new *reading* of the situation and *reflection* about the “nagging problem” in practice set the stage for new learning. Determined to effect change, T *experimented* with new methods by exploring how he might make connections with student experience; he adopted a contemporary issues approach to the curriculum.

Student interest increased, resulting in a changed *attitude* about his students (they became more capable learners) and his *approach* to teaching changed. Instead of lecturing, he invited students to discuss their experiences and relate them to the course content. He assigned a new value to the course content: to help students understand their experience, increase their critical thinking, and examine the challenging issues in contemporary society. He *learned* and improved his practice by adopting a more innovative approach. T became a REAL teacher.

Other experiences followed a familiar pattern. A difficult student challenged T’s fragile hold over his classroom. Learning about his students and forming relationships with them resulted in a previously ignored source of support in his classroom: student good will. T gained student support by his sincere interest in them. The new “reading” and “reflection”, his experiments, and changed attitudes and approaches fostered T’s learning and expertise. These principles and practices sustained T throughout his career. Known for his caring relationships with students and mastery of contemporary issues, T continued to refine his personal pedagogy, applying considerable amounts of effort and creativity to teaching for the next four decades.

The next story describes how two students taught D everything she needed to know about how to be an effective teacher.

Necessity is the Mother of Invention: Two Students and D’s Creative Solutions

D, an elementary teacher, met a talented fourth grade student during her first year of teaching named Tess (a pseudonym). Recalling the student’s capableness and her inexperience in teaching, D described Tess with fondness.

She was very patient with a first year teacher.... There was hardly anything Tess did not know or couldn’t accomplish quite quickly. So you would introduce something and then she immediately had it.... My curiosity about kids who learn differently and at different places and in different ways was really the result of having to try, as a first-year “newbie” teacher, to figure out what do you do with regards to Tess?

Reflecting on the experience, D expressed regret about her inability to fully challenge Tess, despite trying to “do what she could with limited knowledge” to keep Tess challenged. Recalling the challenges faced by first year teachers, D said she tried to learn the curriculum, make lesson plans, and also “think about Tess, and anyone else who was either more like her or kids who were struggling.” D asked the other teachers in her grade level for ideas and found little interest and support. She realized she was “pretty much on her own” and applied creativity and effort to the task of engaging students in learning.

D adopted a unique approach to teaching, even during her first year of teaching. She developed learning stations and rotated students through centers to offer choice and project-based activities to enhance the curriculum.

Social studies was my passion, so consequently, I taught social studies very different[ly] than the other three people in my grade level did because that was, number one, my passion – [I was] very project-oriented, lots of hands-on engagement.... I have really always believed it's not the curriculum, not the content, it's the way it's taught - it's the instructional strategies that teachers use with it.

D pioneered the use of learning stations in the intermediate elementary school grades, adapting a successful primary practice to meet the needs of fourth grade students. She believed in “active learning [and] active student engagement.”

Recognizing she “had to figure out myself what worked for kids,” D focused on collecting and organizing resources for student learning to support project-based learning. Outsider observers may not understand or appreciate the method and “mess” created by active student learning. “I taught project-based. My room to the outsider probably did not look like it was organized. When you use project-based learning, you're always working with “STUFF”, this does not go into a folder in your desk,” D commented.

A custodian expressed discontent with the messiness of her method by cleaning the room and then moving all the desks to one side of the room every night. When D entered her classroom the next morning, she started the day rearranging furniture to facilitate small group learning. Frustrated, D finally paid a visit to the principal and put a stop to the silent war between the custodian and a first year teacher attempting to engage students in hands-on learning. D remarked, “The hard part about being a teacher was that there were all sorts of forces against being an innovator.”

D collected methods and materials, designing assignments to foster critical and creative thinking. “When I see something, I figure out how to do it better or differently. So you know, even though I subscribed to professional magazines, I still looked to them for ideas, but I still made them my own.” D continued to grow in her ability to challenge students with a wide spectrum of learning needs through differentiated instruction and student choice.

I asked D how she kept track of resources and stayed organized. Her answer: boxes! “Every summer I took boxes home, I mean, I worked all summer.” D collected and organized boxes based on themes, planning an organized sequence of learning with creative assignments and materials. Project-based learning requires experimentation. The reward: high levels of student engagement and learning.

As professionals we try things out and see if they work with the kids, and what I found is when I used those kinds of strategies with the students they were most actively engaged, they were more enthusiastic, they were more like, ‘What are we going to do today?’

More events and opportunities changed D's experience: she made the switch to 5th grade to worked with teachers willing to collaborate and specialized in teaching social studies (her passion). D also enrolled in a master's program in gifted education. Both moves led to expertise. Her colleagues shared ideas and students benefitted from the collaboration. The master's program provided knowledge of the range of student learning needs and instructional methods to challenge students.

A resourceful teacher, D strategically applied knowledge from a variety of sources to increase her expertise. D “discovered this method out of necessity. You review methods, you

review philosophy, and always ask the question, ‘Does this fit my teaching style?’” D mastered the art of curriculum design to engage students in critical and creative thinking. The first student, Tess, raised D’s awareness of the learner characteristics and needs in her class during the first year of teaching. Another student, Jack, helped her see how family background and invisibility took away the “spirit” of another student, a few years later.

Tearing up, D described Jack as a student who was “always, always in trouble”. A fifth grade student, Jack defied school rules and spent most of his time inside with his teacher as punishment, instead of outside with his peers during recess. School rules required students with behavioral problems or unfinished work to stay indoors during recess. D worked with Jack, discovered his gifts, and admired his spirit. Jack refused to do repetitive work, asking why he should complete 10 mathematics problems, when he could show her his learning with the first five. D realized he was right, and reduced some of his assignments, causing Jack to feel recognized and valued.

Jack’s mother cried during a conference when she learned D appreciated Jack. Later D learned more about Jack: he witnessed the murder of his father at a tender age. Clearly troubled, Jack acted out his problems. Later in the school year, a district-administered test and screening process identified Jack for gifted education services. Jack sobbed, “Everyone always told me something’s wrong with me. And when I got the letter [about my acceptance], someone told me now something is right with me.” Jack finally felt like he mattered.

On the last day of class, after the others students left, Jack sobbed in D’s classroom. Showing his emotion about the year and D’s effect on him, Jack let go and shared his grief at leaving her class. D later worked with Jack during his secondary years, still trying to convince him to engage in learning, and fostering his growing sense of efficacy.

Two students taught D powerful lessons about teaching. Tess raised D’s awareness of the need to meet the needs of a wide spectrum of student needs and interests through recognition of learning needs and the strategic delivery of differentiated plans and resources. Jack grabbed her heart and convinced D of the value of relationships in teaching. D valued Jack’s spirit and respected his identity in a nurturing relationship. D changed her attitude too. She learned to view student defiance potentially as a legitimate concern or a creative expression of identity, instead of a willful disregard to school rules. D realized student behavior might even reflect a certain logical response to circumstances. She now takes time to get to know students and learn about them on a deep and personal level. She understands why students make certain decisions, sometimes when they appear to be acting against their own interests.

D’s personal pedagogy and expertise grew from these powerful experiences, learned during the early years of teaching. She now shares her expertise in differentiated curriculum, class management, empowering relationships, and passion for her subject and students, as a professor and mentor in higher education. Applying the REAL model of teacher learning (Noonan, 2013) illustrates how D’s experiments in teaching led to increased expertise.

Becoming a REAL Teacher and Professor: Analyzing D’s Story

A quick glance at the REAL model shows how D’s “reading” and “reflection” on Tess’s learning needs resulted in experimentation and the adoption of new attitudes and approaches to learning (Noonan, 2013). D described “ramping” up her approach, and incorporating more choices and challenging activities in her curriculum design and stations. The recognition of

learning needs helped D realize the importance of meeting individual needs – an attitudinal change led to the adoption of more innovative approaches. The experience caused D to reflect on the entire spectrum of learner needs, and search for creative ways to meet student needs.

Collaboration represented an important aspect of D’s growing expertise. As a teacher invested in learning and leading (the last letter of REAL; Noonan, 2013), D understood her pathway to success involved collaborating with others and making changes in the curriculum to make it her own. D’s investment in resources for student learning resembled a similar pathway used by T to find new ways to engage learners. D’s desire to gain more knowledge through enrollment in higher education to address student needs revealed her appreciation of a gap in her knowledge, and a desire to grow in the profession.

Jack taught D how to care about students. D “read” and “reflected” on Jack’s circumstances, experimented with ways to motivate him to engage in learning, and reduced his disruptive behavior. D used knowledge of Jack as a valued person in her class to recognize his individuality and affirm his spirit. Her affirmation unlocked Jack’s talent blocked by his significant sorrow over his life circumstances. D’s observations regarding the success of her efforts and active student learning led her to make a lifelong commitment to using project-based learning in teaching with young students and adult learners. When asked to make a list of principles and practices associated with effective teaching, D offered the following list: “active learning, developing the creative ability of kids, critical thinking, grouping for instruction, project-based learning, performance assessment, and of course, caring about students.”

Another story illustrates how a novice teacher made an accidental discovery while supervising a service-learning program during the summer months. W learned one of his most important lessons about teaching from 14 year-old students. The story, submitted in response to a reflective assignment in graduate school (used with permission), illustrates how teacher learning profoundly affects practice.

Accidental Discoveries: How W Became a Real Teacher

I asked students in a supervision class to tell a story about a time when they experienced a significant episode of learning resulting in substantial change. I adopted the same question used in my interviews with expert teachers, only this time I asked students to write a story about their experience. I first share W’s story and then analyze it using the REAL model of teacher learning (Noonan, 2013). If pressed to give this story a title, I think it might be called, “The Real Meaning of Service Learning.”

During the summer months, I worked as the director of a service work program. I assigned 50 students weekly to complete meaningful community projects. On one particular week, I assigned a small group of 12 eighth graders to repair and paint a 91-year old man’s house.

I met with the homeowner and soon learned he was a great guy. He lived alone but was alert and loved to talk. We discussed what he wanted, and he was happy with whatever I could provide. I later discussed the project with the housing inspector and was given a specific list of items needing attention. I ordered and delivered the materials and met with the homeowner one last time. I warned the homeowner about the teenagers arriving bright and early the next morning, and told him to expect lots of

noise.

Talk about failure, no matter what time of the day I showed up to visit this job site, little was getting done. An adult leader supervised the job and simply shrugged when I asked what was happening. Every time the students got to work, they would slowly disappear and end up in the house talking to the elderly man. I had a plan and these kids didn't seem to care. I felt inadequate and stuck. The week ended and I apologized to the housing inspector.

When I asked the students why they let me down and did little to fix the man's house, a female student said, "Because it wasn't important." I wondered how a 14-year-old student felt qualified to make a decision like that. I asked for clarification and was told a story I was too busy to have recognized at the time.

The students explained the homeowner was dying. He had cancer and he had only a year, maybe a little more, to live. He wasn't in physical pain, but he knew this was his last summer. When the kids arrived, they started their work. When they took their first break, the homeowner brought his chair outside to sit with them. When they grabbed a scrapper or brush, he would ask them to come into his house to see something. The man had a houseful of memories and he took the whole week to tell his stories to the students.

The homeowner and his wife lived together for 70 plus years until she died. Their only child died in infancy. The elderly man didn't have any close family or friends, most were long dead, and his only companion was his cat. He didn't care about his house because it was to be willed to a distant relative he hardly knew, but he worried about the cat.

When the students would try to go back to work, the man remembered something else important, and so the students never felt comfortable leaving the house or the homeowner alone. The man told the students there was nothing worse than being alone, and he couldn't imagine leaving his cat with no one to care for it. He thought it might be best to put his cat down. The man didn't want his cat to suffer and he talked to the students about his decision.

As if to punctuate the story, one eight grader asked me why I hadn't noticed the elderly man standing in his doorway crying, when we left the last day. Boy did I miss this one! I was so wrapped up with my vision and goals, I didn't take the time to ask or listen to a small group of 14-year-olds. I learned to never be in such a hurry that I lose track of the human aspect of my students. In many ways they are probably more in tune to the important lessons of life than I am, and it is often worth my time to listen. There are times you can't move forward until you deal with the problems of the day.

The Human Aspects of Teaching: Analyzing W's Story

W made an accidental discovery about teaching and learned an important lesson from his students. Using the REAL model to analyze the story (Noonan, 2013), W initially "*read*" the situation incorrectly, making erroneous assumptions about the reason students failed to complete the house repair and painting of the elderly man's home. He experienced "a nagging problem" in his practice, feeling disappointment about his students' failure to complete the service project. His inquiry about the situation and subsequent *reflection* caused

him see things differently. Students offered a different type of “service” to a lonely man, spending five days listening to an elderly man discuss his life and concerns. The students valued his existence as a human being, and met his need to talk to about his life through attentive listening.

W’s reflection on the experience caused him to *change his attitude toward his students*. His students responded more sensitively to a situation than he imagined. He learned his students possessed good judgment and sound values, even at a young age. The reflection on this experience changed his attitude about his students and role as a teacher. W vowed to listen to students and learn from them. This breakthrough in his understanding about the importance of listening to students led to many experiments in teaching. W strove to include student views and concerns in his lessons. He changed both his attitude and approaches to teaching.

When W encountered the next situation requiring “reading” and “reflection”, he considered the students’ point of view, helping him become a “real” teacher. W’s personal pedagogy included a respectful and a compassionate response to students and active learning. W crossed a threshold and saw new opportunities for engaging students in learning. Respectful and genuine listening to students served as the foundation for successful relationships with his students.

The stories told by T, D, and W illustrate the lasting effects of early learning on expertise. In the last section of my paper, I show the relationship between the REAL model of teacher learning (Noonan, 2013) and threshold theory (Meyer & Land, 2003/2005), including how the combination of action research and threshold theory contribute to understanding about the experience and power of teacher and professor learning.

Combining Threshold Theory and the REAL Model of Teacher Learning

As teachers/professors (and other professionals) detect problems in practice and struggle to resolve them, they feel stuck and often engage in multiple attempts to understand and solve problems. Threshold theory (Meyer & Land, 2003/2005) suggests some problems must be resolved to experience a threshold crossing in a discipline or field. Successful resolution results in a shift in knowledge and changed identity. Teacher learning leads to increased competence and greater authenticity in the role of teacher. Combining the stages of teacher learning in the REAL model with threshold theory illustrates how the experience and successful resolution of a nagging problem in practice results in increased expertise.

Threshold crossings (Meyer & Land, 2003/2005) concern “typical” challenges, such as, class management, managing demanding workloads, learning a curriculum, forming relationships with students, providing an organized and sequenced approach to learning, and more. Figure 2 illustrates how informal action research described in the REAL model incorporates threshold crossings and concepts in teacher learning.

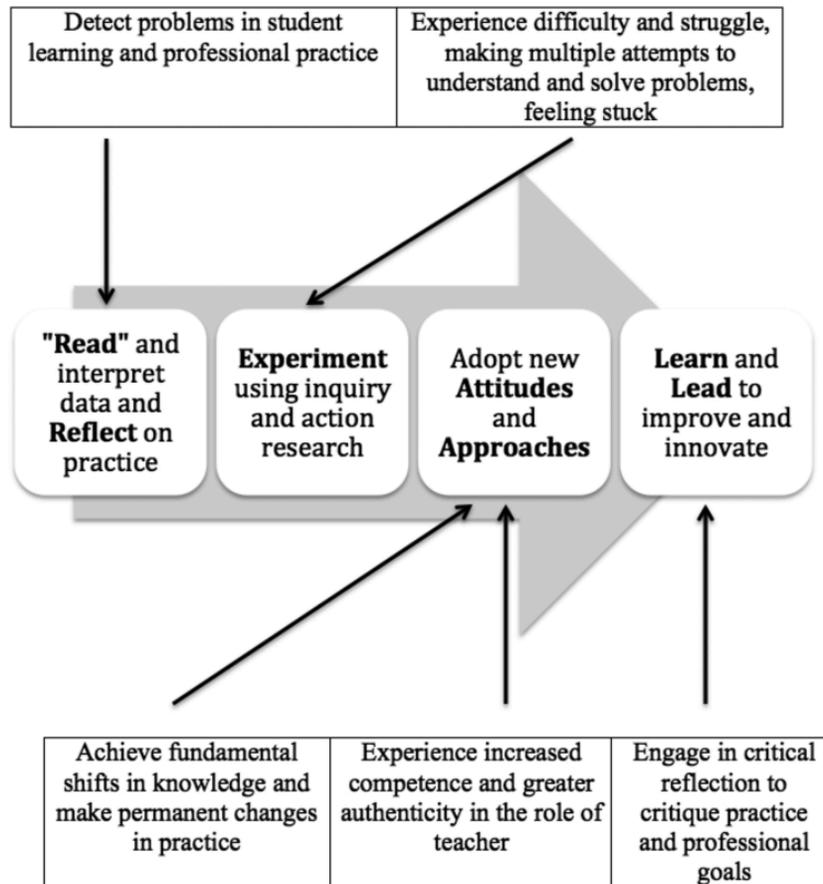


Figure 2. The REAL Model of Teacher Learning and Threshold Crossings and Concepts (Noonan, 2013, p. 43)

Experiments in teaching predictably lead to changes in attitudes and approaches (Noonan, 2013). These changes represent substantial growth in expertise. As novice teachers become proficient, they learn what to do and why. The knowledge gained leads to a changed identity, helping a struggling teacher or professor increase their professional knowledge (what they “profess to know”; p. 13) as a result of a powerful episode of learning.

As teacher and professors, we lead our students and field due to critical reflection on practice. A return to previous habits and attitudes represent a retreat in practice. We know better and sometimes make the same “dumb” (disturbingly unaware of my own behavior; Noonan, 2013, p. 53) mistakes again. This makes teaching endlessly fascinating, and at times, frustrating. Expert teacher and professors do not achieve a state of “expertise”, but instead engage in a process of continuous improvement and innovation to *grow in expertise* as a result of continuous learning.

Summary

I described and illustrated the powerful effect of teacher learning on the development of expertise, providing three examples of teacher learning from two in-depth interviews and one graduate student response to a reflection on practice. I used an informal model of action research typically experienced by teachers to reflect on their experience (called REAL;

Noonan, 2013), illustrating how teacher experiments with alternative approaches led to learning and expertise. I also illustrated how threshold crossings lead to the acquisition of threshold concepts – central principles and practices associated with effective teaching (Meyer & Land, 2003/2005). Some nominated principles and practices from my study of expert teachers include: caring relationships, engaging student interest by making connections to their experience and culture, using experiential learning to stimulate student interest and desire to learn, and providing feedback to support student learning.

Most teachers/professors might easily list the typical challenges experienced and the “solutions” leading to successful teaching. However, individual experiences in resolving these challenges result in the specialization of teachers in certain areas of expertise. This might involve nurturing relationships, innovative methods, organizing the content using an “issues” approach, and more. This unique combination of approaches results in a personal pedagogy for effective teaching and learning (Noonan, 2013).

My interviews with expert teachers revealed how unique experiences and creative solutions resulted in the adoption of preferred styles and approaches to teaching. Expert teachers achieve a unique and strategic approach to teaching and routinely reflect on their practice to improve and innovate.

I developed the following definition of threshold crossing and concepts as it applies teacher/professor learning: “Threshold crossings and concepts in teacher [and professor] learning and expertise maybe defined as (1) *fundamental shifts in knowledge and understanding* (2) *achieved through critical reflection and learning*, resulting in (3) *an altered professional identity* and (4) *permanent change in practice*” (Noonan, 2013, p. 42). The definition describes what happens when REAL teachers learn.

An exploration of how teachers/professors learn reveals the challenges in professional practice, including the initial struggle of novices to acquire knowledge to achieve proficiency as well as the recurring struggles in practice encountered by experienced and expert teachers. An awareness of how real teachers and professors learn through informal action research reveals the need for continuous reflection and inquiry in becoming and being an expert teacher/professor. Adopting narrative inquiry as a professional development tool may provoke thoughtful discussions of effective methods and a new appreciation for the unique contributions of expert teachers to student learning and the profession.

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Principals' Perceptions of Novice School Counselors' Induction: An Afterthought

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Principals have a clear impact on the transition of teachers into their initial work setting (Allensworth, Ponisciak, Mazzeo, 2009; S. T. Bickmore & D. L. Bickmore, 2010; Scherff, 2008). School administrators' influence on teacher induction is both organizational and relational as they develop structures and practices that support novices. Supporting effective induction structures (i.e., orientation, mentoring, collaboration), as well as developing positive working conditions and relationships with novices, leads to teacher satisfaction and retention, resulting in improved student achievement (Glazerman et al., 2010; Henry, Bastian, & Fortner, 2011; Smith & Ingersoll, 2004). However, little empirical evidence exists delineating principals' role in the induction of other school personnel, such as school counselors. The purpose of this study was to examine how principals conceptualized and engaged in the induction of novice school counselors (NSCs). Specific questions that guided this examination were: (1) How did principals perceive the support given in NSCs in their transition? (2) How did principals' understanding of school counseling influence induction supports provided for NSCs?

Induction

With little research guiding effective school counselor induction, the teacher induction literature provides the foundation for understanding how principals may support NSCs. Induction supports or elements that appear to increase teacher satisfaction, retention, and effectiveness include mentoring, structured collaboration among colleagues, professional development, reduced workload, positive school climate, effective orientation, and positive interactions and support from the principal (S. T. Bickmore & D. L. Bickmore, 2010; Smith & Ingersoll, 2004). Although mentoring has been the predominant method of supporting novices (Glazerman et al., 2010; Smith & Ingersoll, 2004), a growing body of evidence suggests that a multifaceted approach to induction that includes several elements of support is most effective for teacher retention and positive performance (D. L. Bickmore & S. T. Bickmore, 2010; Smith & Ingersoll, 2004). Research further indicates that collaborative school cultures, structures and practices that promote collaboration among teachers, are needed to support all teachers and particularly novice teachers (Bickmore, Bickmore, & Hart, 2005; Johnson, Kraft, & Papay, 2012). The principal has a central role in the development of collaboration through

organizational structures and practices, as well as interpersonal interactions (Boyd et al., 2011; Johnson et al., 2012).

How principals perceive their role in the induction of novices is less clear. Bickmore and Bickmore (2010) studied two principals that had planned and received grant funding to implement a multifaceted induction program. Their findings suggested that when principals understand their impact on novices, both organizationally and personally, they provide effective induction support. By contrast, Scherff (2008), in a study of two novice teachers, delineated how principals can negatively impact novices when they do not plan induction elements and when their interactions with staff are perceived as negative.

Counselor Induction

Though there is a dearth of literature highlighting research on NSC induction. Matthes (1992) conducted the most notable early study of the induction experiences of NSCs. The majority of NSCs reported having no assigned mentors, no reduced workload, and minimal resources (e.g., clerical staff, discretionary funds, guidance materials). Following Matthes' study, Stickel and Trimmer (1994) used a case study approach to explore one NSC's induction experience. Stickel and Trimmer observed that NSCs needed opportunities for reflection, guidance for developing problem-solving skills, and the opportunity to develop processes for dealing with complex issues in their school settings. In order for NSCs to develop these skills, Stickel and Trimmer specifically suggested that the induction elements of formal mentoring, reflective practice opportunities, and additional resources be provided. Since Matthes (1992) and Stickel and Trimmer (1994) conducted their research, there has been no systematic or confirmatory research to explore NSCs induction experiences.

Unique Issues to Counselor Induction

School counselors are trained to design and implement comprehensive programs (American School Counselor Association [ASCA], 2012). School counselor preparation is focused on evidence-based and best practice services (i.e., classroom guidance curriculum, small group and individual counseling). However, principals receive little pre-service or in-service training on effective school counseling and current standards for the counseling profession (Finkelstein, 2009; Protheroe, 2010; Zepeda & Mayers, 2004). Principals may have a more antiquated conceptualization of the role of school counselors and may relegate school counselors to ancillary duties – being the hall monitor, test coordinator, scheduler, planning for prom – rather than allowing NSCs to implement effective practices learned in preparation (Finkelstein, 2009). NSCs educated in programs accredited by the Council for Accreditation of Counseling and Related Education Programs (CACREP, 2009) have received training focused on counseling skill development as well as programming that enhances college and career readiness. The incongruence between school counselor preparation and the reality of the daily work assigned to NSCs can cause increased stress, career dissatisfaction, and lower career commitment (Baggerly & Osborn, 2006; Scarborough & Culbreth, 2008; Wilkerson & Bellini, 2006). Yet another impediment to principals' induction support for NSCs is the singularity of the position. The NSC may be the only counselor in the building, precluding the principal from organizing effective mentoring, collaboration, or professional support.

NSCs without teaching experience. According to ASCA (2011), only seven states require school counselors to be certified as teachers or to have teaching experience. Many school counselors enter the profession with little exposure to the daily functioning of schools other than field experiences as part of their preparation program. The lack of familiarity with school systems, coupled with being hired into a new environment with new colleagues, students, and administrators can create a steep learning curve for NSCs without teaching experience.

Methods

This study was a reanalysis of data collected in a multi-case study of counselor induction in which we interviewed principals and NSCs, and collected artifacts related to counselor induction. In this previous analysis we focused on NSCs' perceptions of their induction (Curry & Bickmore, 2012). Evidence surfaced in the original analysis suggesting principals' understanding and perceptions of NSCs' needs in relationship to effective school counseling may have impacted how novices were inducted. As a result, in this study we examined principals' perceptions of NSCs' induction needs and contemporary school counseling standards and practices. We employed social constructivism as our interpretive frame to examine principals' conceptualization and perceived engagement in the induction of NSCs (Creswell, 2013). The primary data source for this reanalysis was principal semi-structured interviews. Additionally, we collected artifacts related to principals' involvement with NSCs' induction, such as counselor evaluation instruments and professional development materials. These artifacts provided an understanding of context and served as secondary sources to triangulate interview data.

Principal semi-structured interviews were conducted in the first month of the school year. Interviews ranged in length from 26 to 60 minutes. The semi-structured interview questions were: (1) Describe your professional background; (2) How are counselors hired at this school or district; (3) What are your expectations of a new counselor; (4) How do you orient your school counselor to the school; (5) Describe induction activities for new counselors at the district; (6) Describe specific induction activities for new counselors that occur at your school; (7) Do you have other thoughts about the induction of new counselors to your school or the district?

Participants and Research Sites

In the original study we used convenience and purposeful sampling (Collins, Onwuegbuzie, & Jiao, 2007) to select case sites. We conveniently selected sites with NSCs (first and second year of service) who had graduated from the university in which we worked or who had been trained by the second author in the ASCA *National Model* (2005) of school counseling. We then purposefully selected sites that included a spectrum of school settings – rural, suburban, urban settings, and public, private, elementary, middle, and high schools. Five final sites were selected and we interviewed each principal and an assistant principal at one site who acted as the NSC's direct supervisor, for a total of six administrators. Table 1 outlines each school's demographics and background information for each principal.

Table 1
Participant and School Background Data

Principal Pseudonym	School Context	Background
JoAnn Roland	Ace Elementary School: urban; public; 528 students; 91% F/r lunch, 89% Black, 4% Asian, 6 % White. Novice was the only counselor at the school	22 years in education; 2 years assistant principal; 4 th year as principal; 1 st year at Ace.
Lenny Hanks	Bell Elementary School: urban; public; 625 students; 91% F/r lunch; 5% Asian, 77% Black, 14% White, 2.5% Hispanic, 2.5% Multiethnicity. Two counselors at the school, one was novice.	Several years teaching elementary and middle school; 3 years as assistant at Bell; 19 th year as principal of Bell.
Sam Davis	Ulysses High School: suburban; public; 1355 students; 35.9% F/r lunch; 53% White, 44% Black, 1.5 Hispanic, 1% Asian, .5% Multi-ethnicity. 4 total counselors, three were novice.	12 years as teacher, 6 years assistant principal, 1 year (previous year) in district office, duties included counselor coordinator, child welfare/attendance, homeless, expulsion; 1 st year principal
Jack Savoy	Our Lady School: urban: private: 339 students: 30% F/r lunch: 54% African American, 41% White, 3% Asian, 2% Multi-racial, 62%; Catholic, 38% non-Catholic. Two counselors at the school, one was novice.	32 nd year in education at public and private schools; 20 th year at Our Lady as teacher and Dean of Students; 1 st year as principal.
Janice Lemon	Our Lady School	Teacher; Previously school counselor at Our Lady; 2 nd Year as Assistant Principal.
Seth Williams	Salem High School: rural; public; 1664 students; 32% F/r lunch; 12 Black, 3% Hispanic, 85% White, 1% multiethnicity. 4 counselors, one was novice	14 years as teacher, 7 th year as an administrator, 4 th year as a principal of Salem.

Analysis

In our original coding we used both inductive and deductive methods. Two sets of a priori codes were developed prior to coding, what Creswell (2013) would consider provisional codes that reflect the basic questions or constructs of the research. The first set included five

induction elements that supported novice teachers culled from the literature: one-to-one mentoring, collaboration, professional development, principal interaction with novices, and orientation. The second set of codes included aspects of effective counseling practice as outlined by the *ASCA National Model* (2005): including appropriate direct and indirect services, advocacy, and student connections. Once coding began we also coded passages using in vivo and codes that emerged in the participant interview transcripts.

In our analysis reported here we reviewed all codes derived from principal interviews in the original analysis. A constant comparative method (Glaser & Strauss, 1967) was employed in which we grouped and regrouped all codes in the process of the development of themes outlining how principals conceptualized and engaged in the induction of novice school counselors. To address trustworthiness – credibility, transferability, and confirmability – we triangulated data by comparing participant interviews and contrasting interview data with artifacts (Creswell, 2013). Transferability occurred through memos developed in the analysis process to expose and bracket our biases as former school practitioners (principal, school counselor) and to delineate differences between and among codes (Creswell). The purpose of these credibility techniques was to capture experiential data or researcher bias that may interfere with the researchers’ understanding and interpretation of participants’ statements as well as to provide a “thick” description of the participants’ experiences (Creswell). Finally, we supported confirmability through coding side-by-side and peer review of findings.

There were a total of 31 individual codes in the analysis, including the a priori codes, with 343 specific instances across all codes. This analysis resulted in three themes that represented principal conceptualizations of school counseling and the resulting engagement of the principal in formalizing planned induction for the NSCs. These themes were: (1) limited understanding of effective school counseling; (2) “I never really thought about it [NSC induction]”; and (3) the happenstance of induction supports provided to novices.

Findings

Theme #1 Limited Understanding of Effective School Counselor Training and Practice

Within this theme, principals discussed their conceptualization of the work of school counselors. However, this conceptualization was often limited and disparate from the role of school counselors as described by the *ASCA National Model* (2005; 2012) and NSCs’ preparation. This lack of understanding affected the development of induction supports. For example, though school counselors were prepared to deliver a core counseling curriculum, the principals often used NSCs for administrative tasks (i. e., 504 coordinators, schedulers, test administrators). These tasks and services were not congruent with preparation novices had received in pre-service programs. In describing her vision of the school counselor’s role, Ms. Roland, the principal at Ace Elementary stated,

To be able to manage student records... test coordinators... so to make sure that, first of all the tests when they come in that they’re secured, that they’re coded and handled in a proper manner... that all children in need of 504 plans, accommodations... that all of those are completed and submitted to the state in a timely manner. To make sure that she is aware of all students that receive IEPs that have accommodations for testing... that they are receiving those accommodations in the classroom as well as for

testing, and also to be... a go to person that teachers can ask questions.

The NSC at Ace Elementary was unprepared to meet Ms. Roland's expectations having been prepared primarily in the roles outlined by the ASCA (2005) *National Model*, such as student career counseling and academic development. The NSC had no training in speech therapy or academic difficulties and no preparation to serve as test coordinator. Thus, the novice was unlikely to be an effective "go to" person for teachers as described by Ms. Roland. Most of the other principals shared Ms. Roland's conceptualization of the NSCs' role. For example, Mr. Savoy echoed this same understanding when describing that a school counselor's daily duties included, "record maintenance and being able to interpret test scores." This conceptualization of the role of school counselors may have caused NSCs to experience role ambiguity and stress if their own role conceptualization was vastly different from their principal's view.

Underlying potential incongruence between principal and NSCs' expectations for the school counselor's role was the current demands faced by principals. Mr. Hanks at Bell Elementary acknowledged that the NSC at his school had received what he presumed to be a quality education, though he also admitted knowing little about her actual preparation,

So, when they come in, I don't know what their coursework is like. I know they do an internship, and we've had interns here with our other counselor and that's a good thing...So I was impressed. It is a thorough program to become a guidance counselor.

In spite of the perceived quality of preparation received by his NSC, Mr. Hanks was concerned that his NSC was not trained to do what he needed her to do. He summed up the disconnect,

[Preparation programs] need to put more emphasis on real life... What are you really going to do? What does that principal really need you for? I don't know what job description they have when they come out of the universities, but when they come into our schools, there's a whole different job description as a counselor... dealing with the problems of society, poverty, health, state accountability, testing, administering the tests... they don't know much of what they are getting ready to do, and it's a demanding job.

There were two principals, however, with recent training and experience in school counseling that had a perspective of contemporary school counseling practice that was likely more congruent with the NSCs than the other principals in the study. Mr. Davis, who had served as the district counseling coordinator prior to becoming a principal, had attended counselor trainings. Also, Ms. Lemon, assistant principal at Our Lady School, had previously been the school counselor. Mr. Davis noted that much of the problem with inducting NSCs was that many principals and district supervisors have not received training on the services school counselors are prepared to deliver. Mr. Davis stated,

[Administrators] are older, veteran, experienced people and the way they did things when they were maybe in the assistant principal role or in the classroom was a lot different than it is today. ...And there's a lot they don't know that these counselors

have to do and take care of...So, it's sort of just like you going to a doctor for a procedure and they haven't learned anything new in the last 30 years. ...[S]ome things that administrators need to do, is to have professional development on areas that they don't know much about, and I think counseling is one of the things that a lot of times administrators don't really know.

Because of his recent training in school counseling, Mr. Davis's perspective on induction supported the role of NSCs at his school in developing prevention-based curriculum for students, the focus of the *ASCA National Model* (2005).

For most of the principals, however, the lack of understanding of current, effective counseling practice and preparation was apparent. The principals' perceptions of immediate needs superseded services novices were prepared to deliver (i.e., college and career curriculum). A prominent need was the accountability pressures felt by principals. Although all of the principals participating emphasized this issue repeatedly, it was best described by Mr. Hanks,

If you look back over the last several years, what has changed?; student performance. You've got to make your test scores. It opened up a whole new job for ... accountability, for a principal. If your test scores go down, your name gets in the paper... So, as education evolves, so does that counselor position... five years ago, ten years ago, who cared about 504? Who cared about test scores and state accountability and whether you were administering this test following the law? ...they even have to know, the law of special ed [educaton] situations, on account of testing, accountability, as it relates to 504 issues.

In discussing the preparation of school counselors and school needs as perceived by the principal, Mr. Davis expressed the perceptions of the other principals when he stated,

They need to know the testing background of how that... is supposed to happen. Because, really and truly, at this point, most systems don't have the luxury of just saying "Counselors, you don't have to worry about testing at all." That's not going to happen.

The combination of not understanding effective school counseling, along with pressures of accountability, left these principals with the perception that NSCs needed to enter their buildings fully ready to assume all tasks assigned without concomitant background.

Theme #2 "I never really thought about it much"

The title for this theme is a direct quote from Mr. Williams, the principal of Salem High school, when asked how he inducted his NSCs. Specifically, he stated,

I had never thought much about induction for guidance counselors because I've had good experiences... I never really thought about it much, but I would say that it's lacking, it needs to be there to make sure that... counselors don't struggle in their early years.

With the exception of Mr. Davis, this quote represents principals' thinking about NSCs' induction. As interviews progressed, however, principals began making comparisons between NSCs' and novice teachers' needs. As noted by Mr. Hanks, "Were they prepared? Sure... Do they have a lot to learn? Oh yes. Just like a brand new teacher." However, there was no intentionality on the principals' part in planning for NSCs' induction. When asked about how their counselors were inducted, each principal spoke in broad generalities and seemed to be caught off guard with the question, as exemplified by Mr. Savoy at Our Lady School:

Hmm (pause). It appears, as though from the input that I have gotten from them, that things are going well and that they feel comfortable and feel like they've got the necessary freedom to do what's required, you know to get the job done.

Mr. Savoy had informally turned the induction of the two novices at his school over to the assistant principal, Ms. Lemon, who had been a counselor. As Mr. Savoy explained,

They are available to report to anyone in authority, either myself or Ms. Lemon, our other Assistant Principal. And she is, functions as a resource probably more than anything else, know[ing] and having been there and done that she knows how to help them.

Although an administrator mentoring NSCs was unique, the notion of assuming other staff members would support the NSCs was the norm, not the exception. In each school, principals assumed the experienced counselor, or Ms. Lemon at Our Lady School, would take on the role of mentor, but this role was never formalized. There was no deliberate planning on the part of the principal in organizing these relationships. Even Mr. Davis, who had the most structured induction support for his three NSCs, assumed the experienced counselor and NSCs would work together, "When school starts you don't have time to really intern, you just, 'Hey, learn as you go and you all work together.' And they have worked together and learned from each other."

As principals were probed about support for NSCs, they expressed a vague understanding of district/diocese support for NSCs. Mr. Williams at Salem High discussed his understanding of district support for NSCs, first outlining orientation and then ongoing support by the district,

At the district level, any new employee would go to an orientation; probably a half day orientation at the beginning of a school year ...but to my knowledge there is no district-wide support system for new counselors. If there is one and I don't know about it, I apologize for being ignorant.

Mr. Williams assumed supports were in place but had no real knowledge. For the most part, the planned induction of NSCs was, at best, an afterthought for these principals.

Theme #3 Happenstance of Induction Supports Provided to Novices

According to principals, there were some induction supports for NSCs, though they were

generally not intentional or planned. We discuss the availability and quality of these supports as outlined in the literature – orientation, professional development, mentoring, reduced workload, collaboration, and principal interactions with novices (Bickmore, Bickmore, & Hart, 2005; Johnson, Kraft, & Papay, 2012; Smith & Ingersoll, 2004).

Orientation. Although orientation was provided for NSCs at the district level, the orientation was generally the same orientation provided to teachers and other employees. As Ms. Lemon observed, “they go through ... the same orientation that the new teachers do, but I think it would be helpful for them to have a process for the counselors.” Principals were generally unaware of what information, resources, or training was provided during the orientation, as noted by Mr. Williams previously. There were two notable exceptions to a generic district orientation. Mr. Hanks at Bell Elementary outlined one of the exceptions, “There is an initial meeting for new counselors.” He didn’t know what was included but continued, “We just got a new director of guidance counselors and she’s doing a great job.” The other exception was at Our Lady School, where Ms. Lemon delivered an orientation specific to the NSCs at her school beyond orientation provided by the diocese. Ms. Lemon described the orientation as,

I walked them through what I had done the previous year, the programs we had. I had put together a binder with all the reports, the computer reports and everything we generate from the computer about the students, from transcripts to grades to reports, anything, student lists... things like that.

Other than the one district and one school orientation, NSCs were not afforded initial guidance on how to implement district or school expectations or policies related to school counseling.

Professional development. Little formal or planned professional development (PD) was provided NSCs. Most of the principals either relied on the district to provide PD opportunities or waited until they were approached by the NSC with a request to attend PD. Principals, for the most part, were loosely aware of PD offered novices by the district as expressed by Mr. Williams,

Our counselors go and meet at the district level, maybe once, maybe twice a year.... like principals we have monthly meetings, for instance. I don’t believe that there’s any kind of monthly, or even quarterly type meeting that guidance counselors, new or experienced, would go to.

Moreover, when principals were aware of the content of PD, the topics of the trainings were often related to accountability or services out of the scope of school counseling practice based on the ASCA *National Model* (2005). For example, Ms. Roland described PD provided in her district,

There are some trainings that the counselor and the principal go to. They may attend on the statewide data base for testing, how we access that, they give us our passwords and show us how to use the data... how you can form different reports and things like that.... She’s gone to trainings on managing student records, 504 plans... They meet... monthly, to talk about topics, pertinent to her job responsibilities.

Ms. Roland's quote also highlights the issue of principals' being unaware of the quality of the training to meet NSCs' needs. Ms. Roland assumed training provided by the district was sufficient to prepare her NSC as a 504 coordinator. Yet, data triangulation through documents evidenced that this was approximately a 10 minute training. With no pre-service training in coordinating this federally mandated process, such limited training would likely be insufficient.

Mr. Davis was unique in that the NSCs at his school were provided with multiple PD opportunities. As an example, all counselors at Ulysses High attended and presented at a conference on the *ASCA National Model (2005)*. Mr. Davis chose to attend as well, stating,

[A]ll of them presented at the conference... they did such a great job, there's a lot of people said 'the state needs to hire y'all to go around and teach people, teach the administrators what we need to be doing'.

In Mr. Davis' prior experience at the district office he had gained knowledge of effective school counseling, which seemed to translate to encouraging and supporting school counselor PD. When asked why the counselors at his school, including novices, went to so many PD activities he responded by connecting his previous experience at the district office by stating,

... they [counselors at his school] go to a lot of professional development... I think I was also lucky in being able to have once a month those counselors meeting last year when I didn't really know other than school based stuff... it was definitely professional development for me. You know, so, anyway that was a big help.

Other than Mr. Davis, principals thought little about providing professional learning experiences specific to novices' professional needs.

Mentoring. As previously outlined, in all but one case, principals assumed the experienced counselor at the schools would mentor novices. However, there was no mentorship structure or training provided to the experienced counselors in order to perform the duties of a mentor. Principals further assumed mentoring was effective. When asked how he monitored the mentoring process at his school, Mr. Hanks stated, "I talked to the other, more experienced counselor yesterday, I said making sure the new counselor is learning, getting experience with things that you do to help ...cause that's very important." Even Mr. Davis, with his experience as the district coordinator of counseling, assumed the experienced school counselor at his school, with no mentorship training, could effectively mentor three new counselors. Additionally, no reduction in workload was given to the experienced counselor.

Mentoring at Ace Elementary was unique, as the novice was the only counselor at the school. A school-based counselor mentor was not an option. Ms. Roland's solution was to provide limited initial visits from the previous counselor and another school counselor in the same district. However, the supports she described were limited to two partial days and were more managerial and logistical than actual mentorship support,

...we did buddy her or pair her with the counselor that was here for so many years,... Mrs. Young... So this summer, Mrs. Young came over and met with Mrs. Carter and talked to her about the community and about the needs of our students. She

transitioned her to show her how the records had been kept prior and where all of the guidance materials were. In addition, there's another counselor that's very good with testing and managing testing and organization, and she's at Nichols Elementary School, and we've paired Mrs. Carter with her. Mrs. Carter has gone to Nichols Elementary ...and spent the day with her to see how her school was set up for the maintenance of state-wide testing.

Mr. Williams, like the other principals, initially assumed the experienced counselors in his school would help the novice. However, as he spoke during the interview he compared teacher induction support and mentorship and realized that the process in place in his building for NSCs may not be the most effective,

Sometimes we'll hire somebody and we'll suddenly realize, when that teacher doesn't turn in grades on time or something, we'll go, 'oh, you know, we never assigned him or her a sponsor', and we're like 'gosh, we should have done this'. So we kind of created that situation where the teacher was destined to fail...come to think of it, why wouldn't we treat a guidance counselor the same way?

Workload. Similar to Matthes' (1992) findings, principals in this study did not recognize that NSCs might not be capable of managing the workload of a more experienced counselor. Most of the principals noted that there was an overwhelming amount of work to be done in their schools, yet they expected NSCs to perform all of the tasks assigned from the moment NSCs started the job. With the exception of two principals, administrators appeared not to consider easing NSCs into their workloads. One exception was Mr. Hanks who reduced the novice's workload by giving the experienced counselor testing responsibilities. The other exception was Mr. Davis, who specifically hired a test coordinator, knowing he would have three NSCs in his building. Other than these two instances, principals expected NSCs to assume all counseling duties. When talking about assigning duties to her NSC, Ms. Roland stated,

...She manages all of her responsibilities very well. I try not to overwhelm her, but it's hard to do. It's unbelievable the kinds of things we have to do on a school site to best meet the needs of kids. Kids have a lot of issues, families do in this time that we're living in. You know, [our state] is a high poverty state, and there's things that come along with servicing a high poverty population.

Although Ms. Roland stated that she tried not to overwhelm her NSC, she also indicated that the needs of students and families often were overwhelming. At her school, the duties she gave to the NSC were quite cumbersome including collecting and distributing winter coats for students in need, coordinating 504, Individual Education Plans (IEPs) and the child study team, response to intervention (RTI) services, classroom guidance, parent workshops, all testing, and individual and small group counseling.

Similarly, Ms. Lemon at Our Lady school stated, "my expectations were that they would be pretty well prepared to step in and do the job. Just going through the process myself, knowing that they have the training to do the job in the various areas." However, she also noted that many NSCs have no educational background or experience, as school

counselors are no longer required, in most states, to have teacher experience. Ms. Lemon acknowledged that they may need more time and help with classroom lesson plans, understanding and supporting teachers, and learning classroom management strategies. This same sentiment was shared by Mr. Davis, as he expressed that one of the NSCs at his school did a great job with counseling but needed extra help with classroom guidance lessons. Although acknowledging some counselors had no experience in schools and that NSCs experienced high workloads, principals, for the most part, did not consider reducing novices work requirement to allow them time to build skills.

Collaboration. Principals were more apt to be aware of the importance of the ongoing collaboration among counselors in their building than of other potential induction supports. Mr. Williams represents this recognition when asked what supports may have been important in the success of his NSC;

Now one of the things that I think has helped us is that we've had, with these 4 counselors, they've been very helpful in making the newest counselor or counselors feel at home and helping in their process of becoming accustomed to [Ulysses] High School... they just kind of form a family and a bond and kind of help each other out.

Mr. Davis was particularly cognizant of setting a positive collaborative working relationship among his three NSCs and the other members of the counseling staff. He described how they were able to meet for an entire week in the summer before any other faculty started:

Because they are all new, that week they spent together was big. The senior counselor came in a week before, and also the testing coordinator was here, so they were both here for a week together. Then the other three came in the next week, so the five of them worked together. I think that was the key to us being successful this year at this point.

Principals placed a high value on the ongoing relationship and job-embedded collaborative work among counselors as a support to novices. This was particularly exemplified by Ms. Roland at Ace Elementary, where there was only one counselor. When asked what recommendations she would make for NSCs she stated;

Unfortunately, a lot of the job is baptism by fire. I don't know if she shared this with you but things just kind of happen here and they happen very quickly. ...I'd like to see two counselors on the elementary level... I would say support from veteran counselors.

Although all principals recognized that ongoing collaboration with other counselors was important for the support of NSCs, only Mr. Williams at Salem High formally structured the collaboration process. He required all staff to engage in professional learning communities (PLCs) during early dismissal. He explained,

... the guidance counselors make up a PLC. So during those early dismissals at least twice a week they do meet. They have smart goals we call them, to help students achieve better, and their main focus is getting, how do we help students achieve at

higher levels, so that they can earn diploma endorsements, industry based certifications, those kinds of things, and be best prepared for what's to come after their career at this school.

Adding a structured collaboration process provided another layer of support for novices beyond the informal collaboration the other principals assumed was valuable to NSCs' induction.

Administrator as induction element. An administrator serves as an induction element both through formal, structured interactions and purposeful, informal interactions with staff (S. T. Bickmore & D. L. Bickmore, 2010; Boyd et al., 2011). These interactions may be more important for NSCs than teachers as a NSC's work is largely intertwined with that of the principal. Mr. Davis provided an example of planned, purposeful interactions with NSCs through weekly meetings with his school counselors. The assistant principal and the counseling team met to discuss upcoming projects, weekly events, challenges and any assistance the counseling team might need to meet deadlines. Mr. Davis attended about half of those meetings and assured that administrators were in the meeting. He stated,

...our assistant principal of instruction Debbie Smith meets with all counselors every Monday morning at 8:00. I probably make 50% of those meetings, but if there's something specific they need me for, then I'll make a point to make sure I'm in there. But, they meet every Monday and of course then Ms. Smith comes to me and gives me the whole run down. ...having that time to collaborate and work together is big.

The meetings provided structured access to the administration and opportunities for the NSCs to plan alongside principals and receive feedback in the process. Although a positive, effective way to promote counselor induction, most principals did not schedule such a meeting.

Ms. Lemon, the assistant principal who was formally a counselor, reiterated the importance of formal, structured interaction with NSCs. She outlined that the former principal who had retired had weekly meetings which she had found helpful as a counselor. When asked if she were the principal would she reinstate the weekly meetings, she stated,

I think I probably would. Just because there has been a question in the past as far as communication between everyone and I think that would just help; that would be a benefit to them and to me... talk about what's going on that week you know, and do we need to talk about certain kids, what's going on, when things come up just have a consulting meeting once a week; just formalize the process a little bit.

Unlike Mr. Davis, most of the principals described their interactions with the novices as informal and not purposeful. Mr. Hanks typified how principals provided informal support to NSCs and most often took a hands-off approach,

I didn't have a set time or set schedule, but she knew she could come on in that door. But I kept an eye on the situation. I monitored what she was doing and how I thought she was doing. Again, back to the luxury of having an experienced counselor, she would also keep tabs with me on how she thought she was doing.

Mr. Hanks believed that “keeping tabs” on the novice, through the perspective of the experienced counselor, was an effective purposeful interaction. Overall, principals did not formally structure or purposefully interact with NSCs, limiting the principals’ positive effect on their induction.

Discussion

With the exception of Ms. Lemon and Mr. Davis, the principals in this study had not received specific training on the role of school counselors, which may be common in U. S. schools (Armstrong, MacDonald, & Stillo, 2010). As a result, principals were most often using counselors in a manner not congruent with their preparation in current counseling practices (ASCA National Model; 2005; 2012), particularly engaging NSCs in accountability activities and non-counseling duties. This is concerning in light of the findings of Lee et al., (2007), which indicated counselors who performed higher amounts of non-guidance activities (e.g., clerical work) had higher levels of burnout. Yet, due to principals’ immediate needs for accountability tasks to be done, the NSCs were assigned to activities such as 504, child study team coordination, test coordination, and other tasks outside the scope of the ASCA *National Model* (2005) training the NSCs had received. The reactive nature of taking care of urgent accountability needs meant that the NSCs may have had limited time for developing the prevention based curriculum or responsive services (i.e., individual and small group counseling) for which they were trained, thereby, potentially narrowing NSCs’ positive role in student outcomes. These principals were unaware that they may have created greater stress and role ambiguity, factors that could ultimately reduce career satisfaction and commitment (Baggerly & Osborn, 2006).

The lack of principal training in the current role of the counselor may have also contributed to principals’ constricted induction support for NSCs. Although there were some induction elements present for NSCs, support mostly occurred out of happenstance. The principals in this study did not systematically plan or structure school counselor induction; rather, some induction activities were informally provided, largely without intentionality. This lack of planning for induction was particularly disconcerting given that many of the NSCs had never worked as teachers in schools. Noteworthy, a few principals seemed to recognize during the interview process that they had perhaps overlooked the need to induct their NSCs. This recognition of the need for induction may indicate that with some training and guided reflection principals could be more apt to include planned processes for induction of NSCs.

Of the induction supports that were present, most were not effectively implemented (Smith & Ingersoll, 2004). Specifically, mentoring was problematic; mentors were never formally assigned to mentees, they had no formal training to be a mentor, no structured mentorship activities were provided to the mentee, and mentors were not given a reduced workload in order to make time to mentor novices. Lack of an assigned mentor was particularly problematic when only one NSC worked in a building with no experienced school counselor present. Not reducing the experienced counselor’s workload was particularly problematic at Ulysses High School where one experienced school counselor was expected to mentor three novices. Additionally, there was a pervasive assumption that mentoring experiences were occurring and were effective in spite of the lack of evidence, planned monitoring, and evaluation of mentoring relationships and activities. We speculate that part of the issue related to mentoring was that the principals in this study were unaware of effective mentoring practices in general and specifically for NSCs.

A growing body of evidence suggests novices benefit from structured collaborative interactions with peers (Boyd et al., 2011; Johnson et al., 2012). Principals expressed the value of collaboration among the counselors as supportive for novices. With few exceptions, however, principals assumed counselors were regularly meeting and that novices were benefiting from these meetings. In only one instance did the principal set specific structures that required counselors to meet and where the principal monitored these interactions.

Professional development and orientation were additional induction elements available to novices but limited in their implementation and potential effectiveness. Most of the principals relied on the district to provide PD for the NSCs and were generally unaware of the content and quality of the PD in meeting NSCs' needs. Principals did not provide structured professional learning experiences for NSCs at the school level, assuming the experienced counselor would take care of needed learning. As with PD, principals relied on the district to provide orientation to NSCs, which in all cases was the same orientation given all new faculty and staff. School orientation was also the same general orientation given to teachers. This could be particularly problematic when the NSC did not have previous teaching experience.

The principals' interactions with NSCs, as an induction element, occurred in all schools, but again, in most cases in a less than optimal manner. Although principal formal and informal interaction with all novices under their supervision is important in meeting novices' needs, this is particularly poignant for NSCs. There may be a greater need for more formal, regular interactions between principals and NSCs than between principals and novice teachers because of their overlapping and integrated work tasks and whole school focus (Finkelstein, 2009). Finkelstein (2009) found communication, trust, and shared decision-making between principals and counselors was perceived to be critical to school effectiveness for both principals and school counselors. Without formal, regular interactions these precursors to school effectiveness may be difficult to develop between principals and NSCs. Principals in this study felt they were available to novices but, with the exception of two principals, did not structure time to meet with counselors in general and specifically the NSCs in their schools. Several of the principals in this study, upon reflection, noted how they had not really thought about providing specific support for their NSCs and suggested the need to do so in the future. Yet, principals did not consider meeting formally with their NSCs as one of the needed induction supports to be implemented.

Overall, our analysis indicated that more high quality induction practices occurred at schools where principals had participated in some training or who had experience in current school counseling practices. Induction practices at Ulysses High School, where the principal had participated in training on the *ASCA National Model (2005)*, included a formal, planned school orientation for the novices, encouragement and support for more professional development aligned with the ASCA model, and hiring a testing coordinator to reduce some duties incompatible with the ASCA model. At Our Lady School, the assistant principal, a former school counselor, took the lead in providing induction support for the novices that included structured interaction with the NSCs and professional development specifically for the novices.

Limitations

There are specific limitations to our study. First, although we have included a variety of settings, these settings do not represent other contexts. Conclusions and implications must be

considered in this light. Second, we relied primarily on what the principals said they valued and what induction supports they claimed to have implemented. Although we had artifacts to support the principals' views, we did not confirm these perceptions with counselors or by observations. We further have no evidence of the effectiveness of the induction elements claimed to have been implemented by the principals. However, with the limited research surrounding school counselor induction, and particularly how principals understand counselor induction, this study may act as a foundation for future research and more effective induction practices in schools.

Implications and Conclusions

The findings from this study suggest several important considerations related to the principal's role in the induction of NSCs in five school contexts. In general, NSC induction was an afterthought for the principals in this study. Overwhelmingly, principals had limited training in the ASCA *National Model* (2005) and as a result did not understand contemporary school counseling practice. This, in combination with a lack of consistent induction planning resulted in the principals assuming that the novices were receiving sufficient support. Therefore, principals need training in the ASCA *National Model* and quality induction programs. Recommendations for strengthening induction programs for NSCs include developing multifaceted programming – reducing the workload for novices and mentors, providing mentorship training, monitoring and evaluating mentorship activities, providing NSCs specific orientation and PD that supports the current role of school counselors, developing and monitoring structured collaboration among counselors, and structured, formal interactions with the principal.

The limited research surrounding NSC induction suggests that future research is needed on a broad array of topics. Our study uncovered questions concerning principals' understanding of effective induction in general, as well as induction practices specific to school counselors. Principals' knowledge of effective induction may be a needed precursor to understanding their role in the induction of NSCs. Specific to school counselor induction, more nuanced investigation concerning principals' knowledge of the ASCA model and effective induction practices are warranted. Finally, future studies should include a greater variety of settings.

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Teacher Perceptions of the Impact of the Data Team Process on Core Instructional Practices

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This paper documents the results of a mixed method study of teachers who participated in a survey and focus groups in a K-12 southwestern suburban school district during the 2011-2012 school year. The mixed method design contains elements of both qualitative and quantitative approaches, permitting the authors to collect qualitative and quantitative data in the same study. The teacher population (N=295) included intervention specialists, speech and language specialists and counselors at the pre-school, elementary, middle school and high school levels. The quantitative and qualitative results from this study are synthesized and triangulated in the Cross – School Results Triangulation Table (Table 1), and indicate that the district teachers assessed the impact of the Data Team Process (Reeves, 2006) on their curricular, assessment/feedback, instructional and leadership practices as positive. Teachers generally reported that the process positively impacted student learning, though results varied between pre-school, elementary, middle school and high school levels. Results were reasonably consistent within the pre-school and elementary levels, varied slightly within the middle school level, and were more variable at the high school level. The study exposed the need in the district to focus on the full ten-step Data Team Process, provide protected time to work in Data Teams, design teams carefully to allow same subject teaches to work together, enforce common norms of behavior and create school-wide Data Teams to orchestrate the efforts of subject/grade level teams within buildings.

Introduction

Educators today have both an unparalleled opportunity and an incredible challenge. The opportunity is to take advantage of powerful research studies using student achievement as the dependent variable to improve student achievement by all students while simultaneously improving the quality of core instructional practices. The challenge is to get teams of educators to focus collectively and collaboratively on what matters most using efficient and effective data processing strategies.

How can busy educators systemically and systematically work together to continuously improve the percentage of students who master the Common Core standards and the 21st century skills they will need in their future? What systems, processes, structures and

protocols can districts and within-school teams use to simultaneously improve student achievement and build the range and repertoire of effective, research-supported instruction practices of all of its members? How can teams of educators follow the sage advice of Richard Elmore (2007): “The main thing is to keep the main thing the main thing”? The main thing, as Dufour (2009) advocates, is to ensure that all students achieve at high levels given sufficient time and support.

Data Teams and the Data Team Process (Reeves, 2006) can provide educators with the systemic and systematic structures and processes to meet that challenge. Systematically eliciting the feedback and contributions of the teachers responsible for delivering the curriculum and ensuring that all students achieve at high levels may be the most powerful leverage members of educational systems have to improve both learning and the quality of instruction.

Designing and re-designing the American educational system to meet the needs of our children, and, thus, American society, are not new endeavors. Throughout the history of American education, reformers, researchers and practitioners have designed, modified, and re-designed what students learn, how they learn, and how school systems were best structured to achieve the desired results of American society.

What can we learn from the history of educational reform efforts? How can educators draw from the findings of leadership researchers to guide their efforts to improve student learning? What lessons can be learned from the extensive research linking core instructional practices and improved student achievement? How can the literature on professional learning communities help teachers and administrators effectively and efficiently implement best practices? A brief summary of current thinking can provide a rock-solid foundation and support for the implementation of Data Teams and the Data Team Process by teams of educators who are committed to doing whatever it takes (Dufour, Dufour Eaker & Karhanek, 2010) to ensure that all students achieve high academic standards at high levels.

Educational Reform

American educators have been in the reform and improvement business for a long time. Reform efforts have typically reflected the economic, social and political contexts in which they were initiated and implemented (Hargreaves & Shirley, 2009; Wiliam, 2007). Each era of reform contributed to the evolution of American education, culminating in today’s public education system (Elmore, 2007). Regardless of the era, students, parents, educators and society at large have shared a simple desire—that students receive an education that would give them the skills and understandings they would need in school and in life (Spring, 2011). Similarly, common sense suggested that the better the teaching the better the learning. In order to teach better, educators needed a good curriculum, sensible assessment, effective instruction, and strong leadership to make it all happen. Thus, the question in the minds of thoughtful reformers was usually not what needed to happen, but how to make it happen.

Whole system reformers and researchers have found they should focus their efforts on the curricular, assessment, instructional and leadership sub-systems that will most probably have a profound impact on student achievement of all students, regardless of socio-economic background (Darling-Hammond, 2010; Reeves, 2004, 2011), and teaching quality (Fullan, 2008, 2010), thus fueling the globalized demands of the 21st century world (Pulliam & Van Patten, 2013).

Educational Leadership

Classroom, school, and district leadership practices are critical to whole system reform and improvement efforts in school systems, providing the first of four cornerstones for effective educational reform and subsequent student achievement gains. Together with curricular, assessment, and instructional practices (Marzano, 2007a, 2007b) leadership frameworks, structures, processes, and skills (Fullan, 2001, 2010; Marzano, Waters & McNulty, 2005) can positively impact student achievement (Marzano, 2003) and move systems closer to achieving their desired future (Cook, 2004; Dufour & Marzano, 2011).

Researchers suggest that schools and school districts need to collaboratively build a common mission, a shared vision of their collective future (Dufour, Dufour, Eaker & Many, 2006) and establish shared, evidence-based student achievement and core instructional practices (Dufour, 2009; Elmore, 2007) to lead to improvement goals. Action plans and success criteria (McNulty & Besser, 2010) should accompany improvement plans, and monitoring plans should focus on tracking progress on the student achievement and instructional goals.

Leadership matters (Marzano & Waters, 2009). Administrators and teachers, working in aligned teams at all levels of the system (Hord & Sommers, 2008) and involving all members of the school or district (McNulty & Besser, 2010), can positively impact student learning by sharing leadership responsibilities. As one astute researcher stated concisely, "...teachers often learn best, not from outsiders, but from one another" (Schmoker, 2006).

Curriculum

Curricular practices, the second cornerstone, provide the basis for effective systemic reform. The first question educators should ask themselves is, "What will our students learn?" (Dufour, 2009). Clarifying exactly what every student needs to know, understand, or be able to do at the end of the unit, course, and year or course sequence is essential (Dufour, Dufour & Eaker, 2005).

"Power standards" (Ainsworth, 2007, 2011; Ainsworth & Viegut, 2006) or "measurement topics" (Marzano, 2007b; Marzano & Kendall, 2008; Marzano, Yanoski, Hoegh & Simms, 2013) and their related learning goals, are placed at the center of any planning process. Annual curricular pacing guides, collaboratively decided and implemented (McNulty & Besser, 2010; Reeves, 2006) ensure that all students receive a high quality, comprehensive, "guaranteed" curriculum (Marzano, 2003). Unit and lesson planning, specifically when focused on the achievement of essential power standards or measurement topics and learning goals (Marzano, 2007b; Wiggins & McTigh, 2011), needs to be collaborative and facilitate the sharing of instructional, assessment and curricular practices among members—perhaps establishing team learning as the most powerful vehicle to improve student achievement and teaching practices in education today (Dufour & Marzano, 2011; Reeves, 2010).

Assessment

Assessment practices provide the third cornerstone of effective systemic reform. The second question educators must ask themselves is, "How will we know they are learning?" (Dufour,

Dufour, Eaker & Many, 2006). The assessment sub-system, and its related practices, performs two essential functions. The first function is to provide specific, timely performance feedback (Hattie & Timperley, 2007; Leahy, Lyon, Thompson & Wiliam, 2005) to students on their progress and toward mastery of the essential knowledge. The second function is to provide specific, timely student performance feedback to the teacher, thereby allowing teachers to connect the instructional core strategies they employed with their students' achievement (Black & Wiliam, 1998; Guskey, 2007; Reeves, 2009; Stiggins, 2007). Assessment sub-systems and practices, when coupled with the curricular sub-system and practices, create a powerful influence on student achievement (Wiliam, Lee, Harrison & Black, 2004) and form a sort of "glue" between curricular, instructional and assessment systems (Ainsworth, 2007; Marzano, 2007a, 2010; White, 2007).

Instruction

The systemic uses of powerful instructional strategies that are linked to improved student achievement (Hattie, 2009; Marzano, 2007a) provide the fourth cornerstone of effective reform and student learning improvement efforts. The third critical sequence of questions educators must ask is: "What instructional strategies will we use with all of our students initially, what strategies will we use when they don't learn initially, and what strategies will we employ to deepen understanding for those students already proficient?" (Dufour, Dufour & Eaker, 2008).

Using sophisticated research methodologies, researchers have identified the connection between specific approaches, instructional strategies and student achievement (Hattie, 2009; Marzano, 2007b; Saphier, Haley-Speca & Gower, 2008). Properly implemented by at least 90% of a school or district (Reeves 2009), all students can achieve at higher levels. Instruction and teaching quality make a difference. Better instruction yields better learning.

Teaching-Learning Cycle

The improvement of student achievement requires the continuous improvement of teaching quality (Dufour, 2009; Elmore, 2007; Fullan, 2008; Reeves, 2006). Teaching quality includes the use of specific, core curricular, assessment, and instructional practices that are supported by the research, are selected based on student performance data, and are combined into a teaching-learning cycle (Ainsworth, 2011; McNulty & Besser, 2010; Reeves, 2006). A hybrid teaching-learning cycle, developed organically over a period of years by the southwestern district in this study, combines elements from previous cycle frameworks into a cohesive whole that effectively describes how all four sub-systems operate together to improve student achievement and teaching effectiveness. The cycle is firmly focused on individually and collectively answering four systemic focus questions: a) What must all of our students learn? b) How will we know our students are learning? c) What core instructional strategies will we use to help all students learn initially? d) How will we respond when some of our students do not learn initially, and how will we deepen understanding or improve competence for those students who are already proficient (Dufour, 2009)?

The teaching-learning cycle advocates (Ainsworth, 2009; McNulty & Besser, 2010; Reeves, 2006) agree with Fullan (2010) that the development of the collective capacity of all

members of the system to ensure each student's mastery of the system's academic standards is critical to any reform effort. The seminal research by Reeves (2009) supports such capacity building, and suggests that unless an innovation is implemented with fidelity to the essential components by 90% of educators, the innovation will likely fail. The challenge for educators is to develop ways that teachers, principals and central office administrators can work effectively, efficiently and harmoniously to implement the most promising strategies on a large scale (Elmore, 2007).

Professional Learning Communities

The most important variable in the achievement of students is the quality of instruction (Hattie, 2009; Marzano, 2003). Quite simply, to ensure that more students achieve at higher levels, educational leaders must improve teaching. Researchers have found that districts and schools that operate as learning communities (Dufour, 2004; Hord, 2009), sharing leadership and responsibility for the learning of all students and colleagues, produce consistently higher student achievement and higher quality teaching practices (Marzano, Waters & McNulty, 2005; Reeves, 2005; Wiliam, 2007). When teams of teachers and administrators work together, students throughout the system learn more (Fullan, 2010). Professional learning communities can, according to educational researchers and practitioners, be the foundation with which to build a shared moral purpose (Fullan, 2001), a shared vision of the future for students and one another, a set of relevant student and adult improvement goals, and a set of implementation plans that are realistically embedded in goals of its members (Dufour, 2009; Dufour, Dufour & Eaker, 2008).

Data Teams

Data Teams (Reeves, 2006) are one form of a professional learning community. The Data Team Process, in the context of the teaching-learning cycle, is a vehicle by which teachers and administrators can collaboratively plan for the learning of all students (Marzano, Waters & McNulty, 2005; Peery, 2011; Reeves, 2005).

The full 10-step Data Team cycle (Marzano, 2009; Reeves, 2006; Wiggins & McTigh, 2005) integrates all elements of a teaching-learning cycle or coherent system, (Fullan, 2010) and includes:

1. Generate Measurement Topics and related learning goals for each course in each subject; create a Proficiency Scale Rubric for each Measurement Topic.
2. Strategically schedule Measurement Topics into an Annual Curriculum Pacing Plan.
3. Design the first Unit, centering on critical Measurement Topics for that Unit.
4. Design the Summative Assessment of Measurement Topics for that Unit.
5. Administer the Unit Summative Assessment as a pre- assessment, score it and place the scores on the team Data Team Process Data Chart for analysis.
6. The Data Team analyzes the results of the pre-assessment, sets SMART Goal(s), reaches consensus on instructional strategies, and creates Results Indicators.
7. Design and implement lessons, administer formative assessments, adjust instruction to meet student needs; meet at a Data Team to analyze and adjust instruction mid-unit.
8. Administer the Unit Summative Assessment, score and chart the results.

9. The Data Team analyzes the results of the Unit Summative Assessment, designs lessons to help students who have not yet reached proficiency and deepen understanding for those already proficient.
10. Return to the Annual Curriculum Pacing Plan to begin the next Unit cycle.

Data Teams and the Data Team Process provide the structures, processes, procedures and protocols for education teams wishing to implement whole school reform and operate effectively and efficiently (Reeves, 2009). Districts and schools can be professional learning communities, and Data Teams are the means by which they can implement the best practices research and experience offer. In addition, the tri-level (Fullan, 2010) interdependent Data Team system (when used as the primary vehicle to integrate all other whole and sub-system reform efforts) can be a powerful mechanism by which leaders at all levels can help transform American education, close the achievement gap (Darling-Hammond, 2010), and maximize student achievement and success in preparation for the 21st century (McNulty & Besser, 2010).

Purpose of the Study

The purpose of this study was to determine teacher assessment of the impact of the Data Team Process (Reeves, 2004) on curricular, instructional, assessment, and leadership practices in pursuit of improved student achievement in a mid-sized, southwestern school district.

The research questions addressed were:

1. How do Data Team members assess the impact of the Data Team Process on their curricular practices?
2. How do Data Team members assess the impact of the Data Team Process on their assessment/feedback practices?
3. How do Data Team members assess the impact of the Data Team Process on student achievement?
4. How do Data Team members assess the impact of the Data Team Process on their instructional practices?
5. How do Data Team members assess the impact of the Data Team Process on shared leadership in the school and district?

Method of the Study

District Background. The district in this study was a suburban high achieving K-12 school district in the southwestern United States. During the timeframe of this study, scores on national normative tests in this district typically manifested median percentile scores above 90%. The students who typically met or exceeded on reading, writing and math state-mandated tests across the district totaled 90%. Approximately 5,170 students attended the largely middle to upper middle class school district. Open enrollment policies allowed students from surrounding school districts to attend district schools; approximately 24% of the students attended under open enrollment.

The district was comprised of one pre-school, four elementary schools, two middle schools, and one high school. For the 2011-2012 school year, the pre-school had

approximately 130 students ranging in age from three-years to five-years. Each elementary school had between 430 and 525 students in grades K-5. Each of the middle schools had approximately 600 students in grades 6-8. The high school had approximately 1740 students in grades 9-12.

Over the previous nine years, the district in the study had systematically implemented current and best practices through a series of curricular, assessment, instructional, and leadership initiatives in pre-school through grade 12, including the Data Team Process.

District Teacher Population. All (100%) of the eligible teacher population of the district was considered highly qualified. All teachers were certified by the state of Arizona for the area and subjects they taught. Approximately 26% of certified teachers were in their first five years of teaching while another 19% had between six and ten years of experience. Of the teaching population, 55% had more than ten years of experience.

Data Teams. All (100%) of the eligible teacher population participated in the Data Team Process for the length of the 2011-2012 academic year. Teachers at the pre-school level met in teams based on shared age levels or shared students. The teaching team at each grade in the elementary level most often comprised the Data Team for that grade. Special area teachers, those who taught art, music and physical education, typically comprised a Data Team. Special education teachers and reading specialists typically joined a grade level Data Team, met with other special services providers, or created a cross-school specialist team. Data Teams at the middle school and high school levels were formed based on teachers' common students, common course, common improvement goals, and/or common subjects.

Data Teams met every two weeks for 60-90 minutes per session for the entire academic year. The principal selected one member of each Data Team to be the Data Team leader. Data Team leaders and the building administrator met monthly for 60 minutes to problem solve and to celebrate successes. Data Team leaders received a one-day training prior to assuming the responsibilities of Data Team leaders. Follow-up trainings and support sessions from Data Team leaders occurred during the year.

Survey. A mixed method survey, the Data Team Process Survey containing 35 Likert-scaled items and five open-ended questions, was used to document the teachers' assessment of the impact of the Data Team Process on their core instructional practices in 2011 (Appendix A). Participants assessed each item as Strong Agree (SA), Agree (A), Neutral (N), Disagree (D) or Strongly Disagree (SD), which corresponded to point scores of 5, 4, 3, 2 or 1, respectively. The survey was distributed to all 295 pre-school through grade 12 district classroom teachers, speech and language specialists, intervention specialists and counselors. The district teachers who participated in the survey totaled 206 (70%). Survey items reflected current best educational practices and specific district expectations for practices in classrooms and in schools.

Area 1 of the survey asked participants to indicate the degree to which they agreed or disagreed that the Data Team Process helped their Data Team to build annual curricular pacing plans, units and lessons. Area 2 of the survey asked teachers to assess how the process helped their Data Team to collaboratively build, administer, analyze, and respond to classroom student achievement data that was generated from common formative and summative assessments, as well as how the process helped them to provide specific performance feedback to students and parents. Area 3 of the survey asked participants to indicate the degree to which they agreed or disagreed that the Data Team Process helped their team to collectively focus on individual student achievement of the district academic

standards, on helping students not yet proficient to become proficient, and on deepening understanding for those students who were already proficient. Area 4 of the survey asked teachers to indicate the degree to which they agreed or disagreed that the process helped their team collaboratively plan instruction, make causal connections between specific instructional strategies and student achievement of district academic standards, and collegial sharing of instructional strategies. Area 5 of the survey asked participants to assess how the Data Team Process helped their Data Team to pursue the district mission, vision, goals, and action plans, as well as how the process helped them collaborate with district and school administrators to support student achievement and teacher professional growth. Area 6 of the survey was open-ended, containing five questions.

Focus Groups. A simple random drawing of 19 district teachers was conducted in order to create two focus group interviews. Focus group members were randomly assigned to one of two groups. Group members responded to seven questions. Questions 1-3 asked participants to assess the personal and collective impact of the Data Team Process on their curricular, assessment/feedback, instructional and leadership practices. Question 4 asked teachers to assess the impact of the process on their implementation of district initiatives. Question 5 asked participants to reflect on the impact of the Data Team Process on student learning. Question 6 asked teachers to share their perceptions of the benefits and challenges of being a part of a Data Team. Question 7 elicited any revisions teachers would suggest to make the process more effective and efficient.

Results

Data from the Data Team Process Survey were analyzed utilizing SPSS software by calculating the mean score and standard deviation for each survey item for the set of 35 items for each level. The survey mean scores (M) represent the average score for the entire set or sub-set of scores, while the standard deviation (SD) scores are measures of how different a score is from the average score in the set or subset of scores. The data were examined using the Kolmogorov-Smirnov Z to test for normality of the data. None of the sample distributions were significantly different from normality. The skewness statistic was also computed to determine if there were substantial amounts of skewness in the data. Statistical analysis showed very small indications of negative and positive skewness in the data as well as the absence of skewness. These amounts were deemed inconsequential in their effects on the estimation of the means in the present study.

Data for the entire set of 35 Data Team Process Survey Likert-scaled items are listed by research question and level in Appendix (p. 171). Data from the five open-ended questions contained in the survey and from the seven focus group questions were summarized, triangulated and are also displayed in Table 1.

Table 1
Cross - School Results Triangulation Table

Research Question Impact of the Data Team Process	Survey Area Mean Scores	Survey Area Standard Deviation	Open-Ended and Focus Group Questions
1. Curricular Practices	Pre-school: M= 3.0667 Elementary: M= 3.5978 Middle School: M= 3.3065 High School: M= 3.1825	Pre-school: SD= .8861 Elementary: SD= .9079 Middle School: SD= 1.0919 High School: SD= 1.3317	Results were generally positive. All levels reported: <ul style="list-style-type: none"> • A focus on common student achievement goals • Shared practices to ensure all students achieved mastery of the target goal • Collaboratively planned units and lessons • Note: Middle school and high school responses were inconsistent
2. Assessment/ Feedback Practices	Pre-school: M= 3.0667 Elementary: M= 3.5978 Middle School: M= 3.3065 High School: M= 3.1825	Pre-school: SD= .8793 Elementary: SD= .6690 Middle School: SD= .8669 High School: SD= .9960	Results were mostly positive. All levels, with the exception of high school, reported: <ul style="list-style-type: none"> • Created and used common student assessment data to plan instruction • Re-teaching and interventions as part of the Data Team Process • Note: High school teachers whose teams utilized the Data Team structures and protocols also used common assessment data to drive instructional decisions; some high school teachers reported the development of common assessments and the use of data to drive instruction in their content area teams instead of Data Teams
3. Student Learning	Pre-school: M= 3.0667 Elementary: M= 3.5978 Middle School: M= 3.3065 High School: M= 3.1825	Pre-school: SD= 1.0412 Elementary: SD= .6899 Middle School: SD= .8278 High School: SD= .9188	Results at all levels were generally positive. All levels reported: <ul style="list-style-type: none"> • The process could or did impact student learning • Collaborated to ensure all students achieved mastery • Strived to focus intervention efforts on not-yet-proficient students and those already proficient • Note: Middle school teachers expressed a need for more common planning time and Data Team time in order to provide the follow-up support • Note: High school teachers almost universally expressed the desire to ensure that all students achieve mastery, but varied considerably on

			the structured process that would most effectively achieve that aspiration
4. Instructional Practices	Pre-school: M= 3.0667 Elementary: M= 3.5978 Middle School: M= 3.3065 High School: M= 3.1825	Pre-school: SD= .1.1585 Elementary: SD= .7381 Middle School: SD= .8348 High School: SD= .9128	Results at all levels reported a positive impact, especially for Data Teams aligned with process procedures and guidelines. All levels reported: <ul style="list-style-type: none"> • The process facilitated sharing of teaching practices and materials • Note: Middle school teachers reported time constraints inhibited follow through and comprehensive development of interventions • Note: Preschool teachers reported a focus on working together and sharing of materials; some commented that more time should be spent on interventions • Note: High school teachers that aligned with Data Team Process protocols reported shared strategies and materials, as well as explicit causal connections between strategies and student achievement
5. Leadership Practices	Pre-school: M= 3.0667 Elementary: M= 3.5978 Middle School: M= 3.3065 High School: M= 3.1825	Pre-school: SD= .4738 Elementary: SD= .6838 Middle School: SD= .8652 High School: SD= .9649	Results at all levels were mostly positive. All levels reported: <ul style="list-style-type: none"> • Common student achievement goals • Common assessments • Common data analysis procedures • Shared responsibility for achievement of all students • Increased sense of shared leadership for learning, at least in the context of the targeted common student achievement goal improvement plans • Note: Some teachers at all levels suggested a broader or more comprehensive process, thereby allowing them to apply the principles of collaborative data-driven decisions to a wider range of academic standards / measurement topics

Discussion

Educators in the study district were challenged, as are educators nationwide, to help all students achieve high academic standards. This study was designed based on the premise that student achievement can only be accomplished by improving the quality of teaching and leadership practices on a large scale throughout the study school district. A mixed methods research design was used to assess the impact of the Data Team Process on teacher curricular, assessment/feedback, instructional and leadership practices in support of improving student achievement. Results from the study revealed, while teachers in the district consistently favor

working in collaborative Data Teams to improve student achievement and their teaching practices, a number of suggested improvements in the process design and support systems that offer potential benefits to teachers and administrators could ultimately improve student achievement.

Several implications arose from the study findings. First, the variance between levels in the implementation of the Data Team Process will predictably exist unless teachers consistently implement the process with fidelity across the system. The second implication is that administrators and teachers need to work collaboratively in grade level/department teams, which then align with building level Data Teams, which can then be aligned with a district level Data Team to create a coherent system of curricular, assessment/feedback, instructional and leadership sub-systems that use common student achievement to drive all decisions throughout the district. The third implication is that teachers, like all human beings, thrive when everyone commits to the same set of team norms, behaviors, dispositions, and expectations, which are then enforced by all involved. Finally, individuals, grade level/department, whole school and district teams must commit to a continuous and unrelenting focus on improving student achievement by improving the collective capacity of all members of the system to improve the quality of their teaching and leadership practices.

Researchers, educational reformers and educational practitioners have discussed the critical need for teams of educators, consisting of teachers and administrators, to work together in a structured process with an intentional focus on student achievement (Dufour, Dufour, Eaker & Many, 2006; Marzano, 2009; Marzano, Waters & McNulty, 2005; McNulty & Besser, 2010; Reeves, 2006). The study explored teachers' assessments of the Data Team Process on their curricular, assessment/feedback, and instructional and leadership practices in pursuit of improved student achievement.

The researchers in this study offer six recommendations based on the astute and practical assessment data provided by the teacher participants in this study. First, the full ten-step Data Team Process should be prioritized as the primary means to improve student achievement and teaching practices. Narrative data from the study showed that teachers at all levels assessed structured collaboration as a high impact strategy for the improvement of teaching practices, and, thus, student achievement. Second, schools should establish a school-wide Data Team to orchestrate and support the work of smaller, grade level/department area Data Teams. Third, time for whole staff and grade level/department Data Teams must be scheduled, prioritized, and protected. Participants in this study almost uniformly recommend more time to collaborate in Data Teams and/or content team meetings. Fourth, Data Teams are most effective when they are comprised primarily of teachers who teach the same subject, course, or students. Fifth, this study confirmed that norms, expectations, commitments, and guidelines for the Data Team Process must be established, enforced, and reinforced at the building and grade/department levels. Teachers in this study at all levels reported that some peers do not manifest the behaviors, attitudes, and perceptions necessary to have student learning needs drive individual and collective instructional decisions. Teachers need to adhere to a mutual set of norms of behavior and expectations, and administrators need to consistently enforce adherence to those norms if teams expect to optimize their time together. Finally, the depth and rate of implementation of curricular, assessment/feedback, and instructional and leadership practices depends heavily on teachers receiving systematic training in the full ten-step Data Team Process, focusing particularly on what must be the same throughout the system, and what may be flexibly adjusted at the building and grade level/department levels.

The practical implications of this for higher education, district and building level professionals are clear and focused. Teachers highly value the opportunity to work collaboratively in Data Teams with their peers to improve their teaching and, thus, their students' achievement. Building administrators can significantly improve student achievement and teaching quality by establishing and systematically supporting a school-wide Data Team as the primary means by which educators improve their craft and focus on student achievement. District administrators wishing to implement large - scale teaching quality improvement efforts can utilize district level Data Teams in support of individual school Data Team efforts. University educators wishing to provide new teachers with the tools they need to succeed not only as classroom teachers, but also as teacher leaders in professional learning communities can infuse training in the Data Team Process into the pre-service training curriculum.

The K-12 teachers in this study, across all grades and subjects, assessed the Data Team Process as powerful, efficient and important to their students and one another. Listening to their wisdom and advice may well be the most important finding from this study.

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Appendix A Data Team Process Survey

Area 1: Curriculum <i>The Data Team Process helps our Data Team:</i>	SA 5	A 4	N 3	D 2	SD 1
1. Use the district Standards / Measurement Topics and Benchmarks to build common annual/semester/course curriculum pacing plans / timelines					
2. Use district Standards/Measurement Topics and district Benchmarks to build curriculum units					
3. Utilize district Standards/Benchmarks to build lessons					
Area 2: Assessment/Feedback <i>The Data Team Process helps our Data Team:</i>	SA5	A 4	N 3	D 2	SD 1
4. Use district rubric scales to assess how well each student achieves district Standards / Measurement Topics and district Benchmarks					
5. Collaboratively build common pre-assessments					
6. Collaboratively analyze data from common pre-assessments					
7. Collaboratively build ongoing common formative assessments					
8. Collaboratively analyze data from ongoing common formative assessments					
9. Collaboratively build common summative assessments					
10. Collaboratively analyze data from common summative assessments					
11. Use district rubric scales to provide specific performance feedback to students					
12. Use district report cards to provide specific performance feedback to students					
Area 3: Student Learning <i>The Data Team Process helps our Data Team:</i>	SA 5	A 4	N 3	D 2	SD 1
13. Collaboratively focus on each student's achievement of district Standards / Measurement Topics and Benchmarks					
14. Identify individual students who have not yet reached proficiency on Standards / Measurement Topics and Benchmarks					
15. Adjust instruction for individual students who have not yet learned Standards / Measurement Topics and district Benchmarks					
16. Make systematic intervention plans for groups of students who have not yet reached proficiency on Standards / Measurement Topics and /or Benchmarks					
17. Design academic tasks that deepen student understanding of district Standards / Measurement Topics and district Benchmarks					
18. Design academic tasks that help students apply Standards / Measurement Topics and district Benchmarks in meaningful assignments / projects					
19. Increase the percentage of students achieving district Standards / Measurement Topics and district Benchmarks					
Area 4: Instruction <i>The Data Team Process helps our Data Team:</i>	SA 5	A 4	N 3	D 2	SD 1
20. Collaboratively design instructional strategies that work to improve student achievement of district Measurement Topics and district Benchmarks					

21. Make explicit causal connections between specific instructional strategies and student achievement of district Measurement Topics and district Benchmarks					
22. Model and share specific instructional strategies to other members of the Data Team					
23. Observe one another teach lessons to students					
24. Design differentiated strategies to meet the needs of individual students					
Area 5: Leadership <i>The Data Team Process helps our Data Team:</i>	SA 5	A 4	N 3	D 2	SD 1
25. Pursue the mission of ensuring every child achieves proficiency on district Measurement Topics and district Benchmarks					
26. Create a shared vision of what we want our students to be able to know, understand and do					
27. Set shared goals for student achievement					
28. Set shared goals for instruction					
29. Implement shared action plans to achieve shared goals					
30. Create shared values / norms to guide collaborative work together					
31. Build a positive student learning environment					
32. Collaborate with the principal to support student learning					
33. Collaborate with building administrator to support teachers' professional growth					
34. Collaborate with building administrator to support school improvement plans					
35. Build collective capacity to help every child achieve at high levels					

Note. SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree

Area 6: Open-Ended Questions

1. What impact does the Data Team Process have on how you design and implement curriculum, assessment/feedback and instruction individually and collectively as a Data Team?
2. How does the Data Team Process affect student achievement of district Standards/Measurement Topics and district Benchmarks?
3. What impact does the Data Team Process have on how teachers work together to help all students learn?
4. What is the overall impact / advantages / costs of being part of a Data Team?
5. What revisions in the Data Team Process do you make to better meet student needs, and what changes would you recommend to improve the effectiveness of the Data Team Process?

Action Research: A Tool for Promoting Faculty Development and Continuous Improvement in Leadership Preparation

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This paper introduces the use of action research to examine the content and outcomes of university-based leadership preparation programs. Using examples drawn from an ongoing action research project with candidates in a master's level principal preparation program, we demonstrate how the collection and analysis of candidate's written reflections, completed as part of required coursework, informs our work as university faculty and supports a cycle of continuous program improvement. Over the years, action research has become a common strategy for professional learning in teacher education. The use of action research to study leadership development remains uncommon, however, especially among leadership educators. This study offers a new and promising approach to examining the preparation of school leaders.

Introduction

There is little doubt today that school leadership matters. Researchers confirm that among school-related variables, principals follow right behind teachers in shaping students' learning outcomes (Leithwood, Louis, Anderson & Wahlstrom, 2004; Marzano, Waters & McNulty, 2003). Unlike teachers who work directly with children, however, the influence of administrative leaders on student achievement is largely indirect, e.g. hiring and supervising staff; creating a culture of high expectations; observing and giving feedback on instruction; establishing data systems that inform instructional decision-making; working with staff to interpret and act on learning results. Through these indirect actions school leaders establish the conditions that support growth in student learning (Louis, Leithwood, Wahlstrom & Anderson, 2010). Thus, a core responsibility of any principal preparation program should be to equip future school leaders with the complex understandings, skills and commitments needed to organize and lead schools where all children have regular and sustained opportunities to learn and to achieve.

We know that exemplary preparation programs share a set of common components that include research-based content, curricular coherence, and problem-based learning strategies that integrate theory and practice (Darling-Hammond, Meyerson, LaPointe & Orr, 2009; Young, Crow, Ogawa & Murphy, 2009). Further, course content in these programs stems from a well-defined and integrated theory of leadership or conceptual foundation, with instructional strategies that are designed to "maximize learning, learning transfer, and leadership identity formation" (Murphy, Moorman & McCarthy, 2008; Orr, 2006). Still, while

we may know quite a bit about the features of a high quality principal preparation program, much less is known about how these features are implemented at the program level (Frick & Riley, 2010; Murphy & Vriesenga, 2004). For example, we know little about the efficacy of different delivery models and the program features that are most effective and/or influential in shaping prospective leaders' practice. While leadership program descriptions are plentiful in the literature, few empirical studies have examined the content and/or outcomes of this learning (Preis, Grogan, Sherman & Beaty, 2007). This knowledge gap leaves us with "remarkably weak evidence" upon which to build strong programs (Smylie & Bennett, 2005).

As coordinators of a leadership preparation program, we wonder how to interpret these recommendations without stronger outcome-driven curricular or instructional guidance. What instructional strategies prompt the kinds of reflective thinking that we know prospective leaders will need? What readings and activities develop the professional knowledge and skill that will help them solve their own problems? What programmatic structures reinforce the dispositions that support effective leadership practice? These questions have empirical value, but they also have practical urgency. As leadership educators, we seek research-based instructional models and strategies that work.

In this paper, we describe our rationale for using action research to examine the content and outcomes of our own university-based principal preparation program. To highlight the promise of action research for informing continuous program improvement, we present early findings from an analysis of candidates' written reflections. These findings demonstrate how the systematic analysis of coursework, completed in the context of a leadership preparation program, can inform our work as instructors and as program developers.

Using Action Research to Guide the Preparation of School Leaders

Concern over the quality of school leadership preparation in the U.S. has generated a range of policy studies and research reports that, taken collectively, highlight the core features of a high-quality principal development program. A recent Wallace Foundation (2013) report distills this decade-long body of research into five "lessons" learned: effective principals are skilled at "shaping a vision of academic success for all students; creating a climate hospitable to education; cultivating leadership in others; improving instruction; and managing people, data and processes" (p. 6). As instructors in a university-based principal preparation program, our lever for influencing school change comes through the quality of our curricular and instructional programming. Action research is our tool for understanding and assessing our effectiveness at preparing school leaders who are committed to improving learning outcomes for all children.

Preparing Effective School Leaders

It has been argued that the worksite demands on principals represent an unrealistic set of expectations (Copland, 2001). Still, the public continues to expect – and rightly so – a great deal from its school leaders, regardless of experience or preparation. As leadership educators, our task is to ensure that candidates have every opportunity to become knowledgeable about the principal's role, bold in their thinking, and skilled in a wide range of leadership practices.

One way of ensuring quality is to design programs based on existing leadership standards, using recommendations that stem from the research literature.

Common features of a high quality leadership preparation program include a strong conceptual foundation, plus a rigorous and coherent curriculum focused on leadership for learning (Darling-Hammond et al., 2009; UCEA, 1998). As Murphy & Orr (2009) explain, this conceptual foundation functions as a “theory of leadership” for school improvement. Quality leadership preparation also features instruction that actively engages students and addresses authentic problems of practice (SREB, 2006). Coursework is designed to facilitate reflective thinking (Darling-Hammond et al., 2009) and to engage students in intellectually challenging materials and ideas (Murphy & Orr, 2009). In these programs, assessment is based on demonstrated performances (Murphy & Orr, 2009). As such, candidates regularly engage in self and peer-assessment (Darling-Hammond et al, 2009). Candidates in strong leadership preparation programs also participate in carefully structured and focused field internships that are purposefully integrated with coursework (Murphy & Orr, 2009), feature rigorous performance assessments (SREB, 2006), and offer mentoring and coaching by expert practitioners (Darling-Hammond et al, 2009).

In addition to programmatic features, a corresponding curriculum must also reflect the knowledge, skills and dispositions embedded within established professional standards (ISLLC, 2008). Such leaders have a clear vision focused on student learning outcomes (City, Elmore, Fiarman & Teitel, 2010; Leithwood et al, 2004; Marzano et al, 2003). They are knowledgeable across multiple domains, e.g. curriculum and instruction; teacher supervision; school business and finance; school law. They work collaboratively with others and are committed to building strong and cohesive professional cultures in their buildings (Louis et al, 2010; Portin, Schneider, DeArmond & Gundlach, 2003). They demonstrate integrity, and they earn the trust of those with whom they work. Importantly, they are willing to advocate for and lead change (Fullan, 2011).

Action Research and Continuous Program Improvement

As challenging as it might be to design a leadership preparation program with the recommended content, structures and processes, the bigger challenge is to ensure that graduates can demonstrate the requisite understanding and skill in real schools where it matters the most. The task of aligning performance data with the planned curriculum is at the heart of university-based program evaluation and accreditation requirements – a process that many faculty find cumbersome and outside of their typical responsibilities. Action research, however, can be a useful and manageable tool for supporting continuous program improvement as well as faculty development.

Action research, also known as practitioner inquiry and teacher self-study, is the process by which practitioners (e.g. teachers, principals, university faculty) systematically examine authentic problems of practice using the inquiry process of problem posing, data gathering, and data analysis for the purpose of improved practice (Cochran-Smith & Lytle, 1993; Dana & Yendol-Hoppey, 2008). In action research, the researcher studies his or her practice for the purpose of improving that practice. In short,

“[T]he researcher’s professional context is the site for inquiry, and problems and issues within professional practice are the focus of investigation. Because the

practitioner is a researcher and the professional context is the site for inquiry, the boundaries between research and practice often blur, creating unique opportunities for reflection on and improvement of the practice...” (Borko, Liston & Whitcomb, 2007, p. 6).

As explained above, action research stems from the belief that teaching and leading are, at their core, highly reflective practices (see Dewey, 1933; Schon, 1983; 1987). Through sustained reflective thinking, one can examine and assess their practice so as to make needed adjustments.

Over the years, action research has become a common strategy for professional learning in pre-service and in-service teacher education. It is also a research strategy used by teacher educators, and increasingly by school leaders (Dana, 2009; Darling-Hammond et al., 2009), to better understand their pedagogical practice. Blurring the lines between researcher and practitioner, quantitative and qualitative methods, action research offers immediate and local applicability to practice. Although scholars have advocated the benefits of modeling research in the field of leadership education on practices common in teacher education (Reihl, Larson, Short & Reitzug, 2000; Stein & Spillane, 2005), an action research approach to studying leadership development and practice remains uncommon, especially among university instructors (Cochran-Smith & Lytle, 2009). Thus, this study offers a new and promising methodological approach to studying the preparation of school leaders.

Research Design

To inform our instructional practice and to guide curricular improvements, we designed an action research study for the purpose of following two cohorts of candidates through our master’s level principal preparation program. Unlike traditional empirical research conducted by outsiders for purposes that are external to the programs or practices under investigation, action research enabled us to bring an inquiry orientation to our course instruction. Through action research, we could practice bi-focal vision as both instructors and researchers. Equally important, research results would be of immediate value, as findings could be implemented immediately for the purpose of improving practice at the course and program levels.

The analysis reported here is unique in that it focuses specifically on prospective school leaders in the early stages of their preparation program. Still employed as teachers, these individuals are exploring the possibilities and pitfalls of transitioning from the classroom to the principal’s office. By carefully studying candidates’ written work, we (as instructors) can both monitor and assess candidates’ development as leaders through the program. Equally important, we are able to make programmatic as well as pedagogical adjustments in light of what we are learning. Drawing on the analysis of written work completed naturally as part of a course requirement, this study aims to answer the following research questions:

1. *How does a candidate’s development as a school leader unfold across a preparation program, what is that nature of that development, and can we find predictable turning points in their learning?*
2. *How do select program features (e.g. reflective writing, mentored internship; culminating portfolio) support candidates’ development as school leaders?*

3. *What program experiences and activities do candidates report as being most and least effective at helping them develop as school leaders?*

Program, Participants and Instructors

The program studied is a university-based principal preparation program in the Midwest. As a state-approved principal certification program, the curriculum is aligned with state and national leadership standards, candidates are required to complete a substantial internship experience, and program faculty incorporate performance-based assessments into their courses. Because this is a cohort-based program, candidates take their courses as a group throughout the entire seven-semester program. A typical cohort enrolls 10-15 candidates. Located in a suburban community, the university draws students from a wide variety of school contexts: public, private, parochial and charter, as well as urban, suburban and rural.

Two cohorts of students were invited to participate in the study and twelve signed statements of consent. Despite coming from a variety of school settings and backgrounds, candidates are similar in that most are early career teachers. Among the group of twelve, eight are male. One is already a practicing administrator, while the others have filled a variety of teacher leadership roles, e.g. school improvement chair, professional development designer, new teacher mentor, department or grade level chair, union representative, coach. All have expressed interest in becoming a school administrator. Note: Roughly half of candidates declined to participate in this first round of analysis, possibly fearful that their name and/or writing would be publicly associated with study results. Others expressed concern based on a lack of experience participating in research as a student. Both explanations highlight limitations of an action research approach to program evaluation.

As instructors, we come to the university through different pathways. One of us is a former superintendent, the other studies school leadership as a researcher and has worked with school administrators through outreach projects. In addition to teaching in the program, the authors also serve jointly as leadership program coordinators.

Data Collection and Analysis

The data collected for this larger study includes program and course-related artifacts for two cohorts of students (see Table 1). Additional data will include a short phone interview scheduled three months following graduation. To ensure consistency and coherence across the program, each cohort is assigned a faculty member who assumes responsibility for teaching the first and final courses in the sequence, as well as overseeing candidates' extended internship experience. All course-related artifacts collected are naturally occurring activities and assignments in the program.

Table 1
Course-embedded Data Collection

COURSE-EMBEDDED DATA COLLECTION
PROGRAM BEGINNING
EL 500 Readings Reflections (x8)
EL 500 Leadership Vision Statement
PROGRAM MIDTERM
EL 560 Self-Reflection
PROGRAM END
EL 630/640 Internship Plan of Work
EL 630/640 Internship Self-Reflection (with Mentor Letter)
EL 690 Capstone E-Portfolio
* with revised Leadership Vision Statement

The analysis reported here is based on written reflections prepared during candidates' first semester in the program. Specifically, candidates were asked to complete eight reflections across a thirteen-week term. In both sections of the course, these written reflections were designed to be short (2-3 pages in length), addressing two or three critical ideas from the assigned reading. Roughly 240 pages of written text, all generated during this first course, were analyzed.

Analysis of candidates' written work consisted of coding passages according to emergent themes based on our research questions (Strauss & Corbin, 1998). Analysis of the full data set will compare and contrast themes across courses and writing assignments, and whether the student is early, mid or late in the program (Miles & Huberman, 1994). Across these data analysis strategies, our goal is to look for knowledge and skill development relative to the ISLLC Standards, and for dispositional leadership traits, e.g., confidence, assertiveness, vision. To increase validity and consistency, the two authors (who also served as cohort instructors), coded and analyzed the data as a team.

To support our claim that action research is a useful tool for continuous program improvement and faculty development, we share findings from the analysis of written reflections completed during the first course of the sequence. We begin by describing this course and our approach to data analysis in this specific context.

Instructional Moves and Turning Points

The first course that candidates take in the program is an introduction to educational leadership. This course is designed to orient candidates to a wide variety of school leadership topics, including the role of the principal, building trustworthy relationships, leadership for teaching and learning, and leadership for meaningful school change. The ISLLC Standards serve as the framework for course content. Performance-based tasks and assignments include the development of teacher interview questions, formulating a theory of action for instructional improvement, crafting a leadership vision statement, and developing a 90-day school leader entry plan.

As a course assignment, candidates are asked to complete eight reading reflections across the thirteen-week term. This assignment provides candidates with an opportunity to make sense of each week's assigned readings by connecting key themes (e.g., change leadership) to their past and future leadership experience (e.g., their typical reaction to change). This assignment also provides candidates with the opportunity to develop their skill as analytical thinkers and writers.

Our primary interest with these initial written reflections was to examine the development of candidates' thinking across the term. Could we identify critical incidents or turning points in a candidates' thinking? Were these turning points associated with particular topics or tasks? And, could we identify any patterns within or across the two groups? We begin with general observations about candidates' engagement in the task of writing these reflections. We then share two "turning points" where we observed noticeable shifts in candidates' thinking.

Instructional Moves that Support Student Engagement

Reflections demonstrated a strong interest in readings that broadened candidates' understanding of the principals' role and concomitant responsibilities. This included readings about principals' work with teachers and with parents, as well as principals' role in leading change and promoting high quality instruction. In these reflections, candidates shared their hopes and dreams for influencing change on a larger scale. They also shared their fears and concerns. Many spoke to the loneliness and isolation of the principals' role, while others commented on the burden of making high-impact decisions. As one shared, *"For the first time, I actually feel as though I am getting a sense of the enormous pressure that administrators in education deal with on a daily basis."*

We also saw strong interest in readings that helped candidates to apply their new understandings in concrete ways, e.g. approaches to interviewing and hiring teachers; creating "entry plans" for the first three months on the job; planning staff meeting agendas. Candidates typically approached these reflections in one of two ways: by looking back and assessing a previous experience, or by looking forward and imagining how they might handle a future situation. One particularly useful metaphor for candidates was the idea of "using the balcony" to view a problem from a wider lens before taking action. As one student remarked, *"Because of this class, I have begun to take a balcony view on everything that happens."*

Additionally, we routinely saw candidates try their hand at making sense of current issues and asserting their point of view. In one group, a comparative analysis of countries with high-performing educational systems prompted a series of written responses that tended to be longer and more impassioned than usual. In the other group, we saw a similar response to readings about standardized testing and the achievement gap. Our experience, based on these two cohorts, suggests that candidates are highly motivated and engaged by topics that prompt ongoing debate, perhaps because those topics invite diverse viewpoints.

In short, our analysis of the reading themes found that candidates' reflections could be grouped into three categories of response: reports of expanded understanding; critical issue analysis; and applied problem-solving. In hindsight, these three categories or frames described the primary ways that we, as instructors, were engaging candidates in the course content through readings, assignments and in-class activities. It wasn't until we completed this analysis, however, that we were able to give names to these instructional strategies or moves.

Turning Points in Student Understanding

Further examination of the written reflections revealed what we called “turning points” in candidates’ understanding. While coding the data, we looked specifically for language that indicated changed thinking or perspective, e.g., “This week’s reading was really powerful for me because”. We then grouped like comments together to see what patterns emerged. Among the turning points recorded, two data groupings stood out because of the frequency by which they were reported: new insights on the principal’s role, and learning to think differently.

New Insights on Principal’s Role & Work

Nearly all candidates, often more than once, commented on how the readings introduced them to new ways of thinking about leadership and, more specifically, the role of principal. Since most candidates entered the program with a limited understanding of the role, this new and expanded awareness was important, as it allowed candidates to begin identifying as a leader. Comments like the following were common.

When reading this chapter, many things became a reality that I had not thought about before. It is interesting to be working as a teacher and reading about administrators who we see from time to time. I know they are very busy, but things that I have read are making it clear as to what is going on behind the scenes.

One topic that received early attention in these reflections was the notion of isolation and aloneness, which candidates also connected to the burden of decision-making. Through reading, writing and discussion, candidates grew more comfortable with the notion of working autonomously and making difficult decisions, as reflected in the next excerpt.

This is something that seems to come with the territory as you have to come up with decisions that are not going to make everyone happy. I just think that it is something that people need to accept because someone has to make the decisions.

And, as candidates grew in their understanding of the principal’s role and work, the better positioned they were to imagine themselves as leaders in the future. The following excerpt highlights this shift in perspective.

I think my original fantasy of being a principal was that I would swoop into a building with a list of great ideas that the teachers, students and families would be thrilled to embrace. I am now realizing that I was being incredibly naïve and I’m a little embarrassed by my previous thoughts. As a new principal I will...

Unfortunately, not all candidates made this shift so easily or clearly. Candidates in the group with limited teaching experience were more likely to draw on the readings to inform their teaching practice than to see implications for their future leadership practice. Conversely, one student in the group with extensive school experience was observed de-valuing the readings and discussion as offering nothing new. In both cases, had we been more aware of

candidates' "stuck" points, we might have been more deliberate in our instructional moves. For example, we could be more intentional in our feedback by suggesting that candidates to compare and contrast issues from different perspectives, and examine implications for leadership.

Additionally, a sub-set of candidates, especially at the beginning of the term, used the readings to explore their secret fears. Will my old teaching colleagues still talk to me? Will I be able to make difficult and sometimes unpopular decisions? Later in the term, without prompting, these same candidates reflected on their growing confidence as leaders, which corresponded to a self-reported reduction in their overall fear and anxiety. Note the growing confidence evident in the following excerpts for one student in the group.

First Reflection: As I start this master's program I am stressed out beyond belief. I'm not sure that I can do it. I'm not sure if I am wasting my time. Even as I write this, I am tearing up. There is an enormous amount of responsibility on the principal to improve the school each year. To make your school the best... Can I be an effective leader?

Final Reflection: I didn't realize until this week's readings that [winning a staff over by acting as a member of the team] will backfire. As tough as it may be to set myself apart as a leader, that is exactly what I need to do.

Our candidates seemed to value this opportunity to safely express their fear and concern. From our perspective, doing so – even without instructor feedback – enabled candidates to re-focus their learning in meaningful and purposeful ways.

Learning to Think Differently

We saw ample evidence that candidates viewed educational topics anew as a result of the course. Areas of interest that sparked widespread discussion among the groups include international comparison to the American system of education; parent and community engagement; factors contributing to the achievement gap; and instructional reform strategies. For many candidates, the course reading and discussions stirred their curiosity and passion, prompting thoughtful and probing reflections. This shift in candidates' thinking was most noticeable in three areas: adoption of an organizational perspective, working with teachers, and the nature of effective leadership.

Organizational Perspective. One of the shifts that we hoped to see candidates make was from a classroom-only perspective to one that encompassed the entire building or organization. As previously mentioned, several candidates adopted the practice of "using the balcony" to intentionally re-frame organizational issues and problems. This routine was especially helpful when candidates were trying to understand the reaction of their peers, or the behavior of a principal. The following excerpt offers an example of what this shift looked like in one student's reflection.

After reading this section, I was compelled to examine my current school and principal. I witnessed the change of leadership in my school and was absolutely stunned by the transformation... Our school identity and culture is changing, or rather

has changed, dramatically over the last two years. After reading this section I begin to grasp the entirety of the task ... she has taken on the challenge of reinventing the school's culture, image and understanding of itself.... This must be the biggest and most challenging task to undertake as a principal – the changing of an ingrained school culture to fit the demanding high stakes future.

For others, this shift occurred more subtly over time as we noted fewer reflections focused on the classroom and more reflections focused on the school. For example, one candidate noted: *“This week I found myself... thinking about things like what would happen if certain teachers changed positions or left? How would that team or grade level be impacted?”* Notably, we found two similar references in this candidate’s writing over time, providing evidence that this shift in perspective was relatively strong.

Working with Teachers. A second area where we were likely to see a shift in thinking or perspective occur was in reference to working with teachers – a topic that generated a great deal of discussion. Such comments often reflected an interest in figuring out “how” to work effectively with teachers. For example, several candidates commented on the importance of ideas coming from teachers, frequently citing a personal example to illustrate their point. Another wrote about the importance of empowering teachers to reach their potential. Candidates also reflected on the myriad ways their colleagues have reacted to change, which prompted further discussion of building climate and its importance to leading change. These examples seemed to help candidates think anew about the nature of teachers’ role and work.

Other candidates reflected on the anticipated aloneness they would feel as principals, isolated from their former peers. A member of the group who already holds an administrative position wrote: *“As I read about the emotional aspect of being the boss, it occurred to me that when I was a teacher, I enjoyed the fact that I only made decisions about what went on in my classroom... As a principal, I have no one.”* Not surprisingly, this observation was repeated across multiple reflections, as evidenced by the following comment: *“Here comes the dark side of being a principal and it hits you like a ton of bricks... It is a lonely position.”*

Yet another way we saw candidates’ refer to working with colleagues came through the supervisory process and their growing realization that holding teachers accountable would demand a different way of thinking and acting. The following quote reflects the uncertainty one student had about the evaluation process.

It struck me when reading [assigned text]: How do you make sure your teachers are not just playing the game? Realizing this, I felt naïve.... This certainly has been a negative reflection [in tone], but I see it as an important puzzle to solve.

For a core group of candidates, building trust was the key to working with teachers as former colleagues. Imagining herself in a leadership role, one candidate explains: *“I believe that trust is the key component to being a great leader. By showing your staff respectful, responsible and well thought out decisions, they will build their trust in you. I feel that if your staff trusts you as a leader, you can take your staff to any level.”*

Shared Leadership. A third way in which we saw demonstrable shift was in how candidates idealized leadership. Specifically, it was interesting for us to note how often candidates referenced a shared or distributed perspective on leadership, as highlighted in the following comment.

Being an effective principal means that we do not have to do everything by ourselves. We need to bring in the faculty and community and allow the entire group to be engaged in the education of the candidates we work with each and every day.

Because references to shared leadership were so common this first semester of the program, we are now beginning to examine the data for shifts in how candidates see themselves as leaders over time and how that may impact their reported behavior.

Pedagogical and Programmatic Implications

As instructors, action research has provided us with fresh eyes for monitoring and assessing candidates' learning and development in our classes. For example, the in-depth analysis of candidates' writing helped us to identify three distinct forms of course engagement: expanding understanding, analyzing issues, and practical problem solving. We can now analyze a syllabus or lesson plan for these three forms of engagement. We can also look explicitly for the three forms in candidates' written work, as well as in their contributions to class discussion. In sum, action research has provided us with new lenses and frameworks for examining how well candidates are learning in our courses, for monitoring the results of new curricular content, and for talking collaboratively with one another about new instructional approaches. This heightened attention on candidates' learning has also increased our confidence as leadership educators, as we now have tools for examining, monitoring and assessing the curricular and instructional choices that we make.

Additionally, action research has influenced our work at the programmatic level. Specifically, findings from this initial analysis are prompting three practical changes to our program. First, findings highlight the importance of teaching candidates the value of reflective thinking, as well as the techniques that will support the development of a reflective leadership practice (Hart, 1983). Studying our candidates' writing further brought to our attention the importance of intentionality when encouraging reflection (Murphy & Orr, 2009). Administrative leaders need to react quickly when the data demands change. They need to engage others in problem solving, and they need to weigh alternatives on the way to a decision. To manage this complexity, leaders will need to cultivate their own skills of reflection. To ensure that our candidates have the opportunity to develop as reflective practitioners, we are now piloting the use of a rubric that we can use to help candidates develop the reflective skills that they will need as school leaders.

Second, we are more intentional about prompting turning points in our candidates. To prepare practice-ready leaders, we need to make the most of each reading and assignment. There is urgency about our work and the work that our graduates will be called upon to do. Now that we better understand what creates and supports these turning points, we can be more deliberate in our efforts to engineer such experiences, e.g. incorporating issue-based readings that can be discussed and debated from multiple viewpoints.

Third, we are beginning to see a set of candidate profiles emerge from our work that are based on three characteristics: a) the ability to engage in reflective thinking; b) an openness to learning; and c) the ability to shift one's perspective from the classroom to the organization. Admittedly, most of our candidates enter the program highly reflective, open to learning, and able to think organizationally. Early in the program, these candidates

demonstrate an ability to think critically and analytically, which they further develop and refine through structured class activities. A smaller group of candidates start the program with under-developed skills of reflection and a lack of experience through which to frame issues and problems. Over time, however, these individuals catch up to their peers. More troubling is a third and very small group of students that fall outside the norm. In our data set, one individual resisted learning, another was unable to shift attention from the classroom to the organization, while a third lacked the skills of critical analysis and reflection. Although more data is needed to confirm the strength of these profiles, they are suggestive of how action research data can support instructional improvement. In this case, candidate profiles can be used to help select developmentally appropriate learning opportunities, as well as guide career coaching for candidates. With refinement, these profiles might also help to screen unsuitable candidates from entering the program.

As demonstrated through this analysis, action research is a promising tool for promoting faculty development and continuous program improvement. It is not, however, without limitations. As a research methodology, it is important that leadership faculty work closely with their Institutional Review Boards to secure human subjects approval for the collection and analysis of student course work. It is also important to share with candidates' your intentions for data collection and your assurance that their privacy and confidentiality will be maintained. Worth noting, our experience at securing research approval and consent for this and similar action research projects has been very positive (Freedman & Carver, 2007; Young & Carver, in press).

Programmatically, building organizational capacity for engaging in continuous program improvement must also take priority. Reflecting on ten years of program improvement efforts, Cosner, Tozer & Smylie (2012) outline a set of recommended strategies for institutions that are committed to ongoing program evaluation. First and foremost, prior to study design, program faculty will need to agree on a focus for inquiry that unifies potentially competing interests and concerns. Data collection systems, norms and routines will need to be developed and communicated. The organization will need to develop capacity for continuous improvement by supporting a culture of inquiry among faculty, as well as establishing rewards and incentives for faculty engagement in collaborative work. Finally, program faculty will need to be attentive to the dilemma of balancing between program stability and continual change. We find these recommendations helpful and appropriate for faculty and programs that are engaging in action research for continuous program improvement, as they mirror our own experience. Organizational capacity is the key to sustaining action research over time.

Conclusion

There is virtually no empirical evidence that redesigned university programs, even those deemed innovative and exemplary, are making progress toward preparing school leaders to improve student learning. Also missing from existing literature are descriptions of the work that is required to dramatically improve school leader preparation programs as well as exemplars of robust student and program outcome data – data that are increasingly expected for program evaluation and that are essential for informed program improvement (Cosner et al., 2012).

Despite the efforts of well-intended reformers, traditional university-based programs continue to come under fire for failing to prepare principals for the challenges faced by today's school leaders. Those who are critical of traditional leadership preparation cite a number of persistent problems, including weak selection criteria that fails to screen for leadership potential; a curriculum that is fragmented and disconnected from the reality of practice; the priority of facilities management over instructional leadership; limited opportunity for candidates to practice and apply new learning; plus internships that lack rigor and focus (e.g., Cheney & Davis, 2011; Hess & Kelly, 2007; Levine, 2005). In short, these critiques claim that traditional programs are out-of-date and out-of-touch.

Our programmatic commitment to continuous improvement through systematic data collection and analysis directly counters such concerns. The immediate application of data-based findings supports transformed practice, innovation and continued inquiry. This inquiry orientation further fosters creativity and experimentation in teaching and models for prospective leaders the importance of reflection on practice. Through the action research process, our program and our instruction is continually being monitored and improved, lending support to our claim that action research is a promising strategy for program renewal and instructional improvement. Given the persistent critique of our work as university-based leadership educators, this is a perfect time to expand our repertoire and give action research a try.

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Collaborative Principal Preparation Programs: A Systematic Review and Synthesis of Qualitative Research

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The purpose of this systematic review was to (1) conduct the systematic search of the literature to identify the studies on partnerships in school leader preparation; and to (2) systematically review the findings of these studies and synthesize them into major themes reflecting the state of the art in collaborative leadership preparation in the United States. Descriptive themes focused on the reasons for universities and school districts to collaborate; the content of collaborative leader preparation programs; the practitioners' involvement; factors to success; implementation barriers and successes; and the lessons learned. Reflections on the collaborative approach to principal preparation are provided.

Introduction

In spite of inconclusive and often contradictory findings regarding educational administration and the factors impacting it, the general agreement among researchers, policy-makers, and practitioners is the importance of leadership to teacher and school effectiveness and student educational achievement. Notably, in the educational accountability era, “school improvement rests to an unprecedented degree on the quality of school leadership” (Hess & Kelly, 2005, p. 245). The efforts to measure and assess leadership quality have resulted in an increased attention to principal preparation, support, evaluation, development, and retention (e.g., Hess, 2003; Levine, 2005; Wallace Foundation, 2005, 2009). On the national level, the U.S. Department of Education (2010) encouraged school districts to improve teacher and leader effectiveness by awarding grants to support innovations at the state and district level.

Notwithstanding the efforts to support, develop, and retain sitting principals, an area that has received greater attention is leadership preparation. This interest was partly attributed to connecting school effectiveness to leadership preparation: if “there is a national imperative to improve our failing schools, then there is also a national imperative to strengthen the preparation of school leaders” (Wallace Foundation, 2008, p. 11). To the growing concern over leadership preparation, quality, and effectiveness, researchers have responded with numerous studies of leader preparation programs, while practitioners and professional organizations have developed alternative forms of school leader preparation.

Believed to be the key to principal effectiveness in the leadership position, leader preparation has been thoroughly examined by researchers and policy-makers over the last two decades. Aptly summarized by Orr (2011), “Leadership preparation has become one of this decade’s primary approaches to educational reform and improvement of student achievement” (p. 115). Because in the USA, much like in other educational systems around the globe, leadership preparation has been traditionally conducted by the universities, and graduate

leadership preparation programs have been among the first to face scrutiny and criticisms. As a result, numerous studies criticized university-based leader preparation as inadequate and ineffective (e.g., Elmore, 2000; Farkass, Johnson, & Duffett, 2003; Hess, 2003; Levine, 2005) and suggested the need to restructure leadership preparation programs (Hess & Kelly, 2005; Young & Kochan, 2004). Specifically, traditional leader preparation programs did not prepare principals to effectively use data, do research, and hire and evaluate personnel (Hess & Kelly, 2005). To summarize, “All too often, training has failed to keep pace with the evolving role of principals. This is especially true at most of the 500-plus university-based programs where the majority of school leaders are trained” (Wallace Foundation, 2012, p. 6).

In light of such criticisms, some university-based leadership preparation programs went for an accreditation review by the National Council for Accreditation of Teacher Education (NCATE) and the Educational Leadership Coordinating Council (ELCC) in an effort to improve program quality (Orr, 2011). In addition, the Interstate School Leaders Licensure Consortium (ISLLC) suggested ISLLC standards with an overall goal of increasing the quality and accountability of leader preparation (McCarthy, 2008). Although these standards were criticized by some researchers (e.g., English & Papa, 2010), they offered much-needed guidelines to regulate leader preparation. The importance of standards was emphasized by recent reports asserting that exemplary principal preparation programs are aligned with professional and state standards for leadership preparation (Darling-Hammond et al., 2010). Thus, university-based leadership preparation has been changing to reflect the needs of the accountability era by preparing instructional leaders, ready to be effective from the first day in the seat. Among the new components of school leader preparation were: (1) increased entrance requirements; (2) cohort models; (3) performance-based standards; (4) individualization; (5) skills development and assessment; (6) reflective practice; and (7) continuous program review (Lauder, 2000). A recent review of published state regulations for principal preparation (Roach, Smith, & Boutin, 2011) outlined major trends in the principalship: (1) standards-based preparation; (2) increasing assessment and accountability; (3) growing number of providers for administrator preparation and development, and (4) assessing principal success based on school improvement and student scores on standardized exams. In addition, current principal preparation programs include field-based learning (Reames, 2010), action research (Turk, 2001), and case studies (Sherman, 2008) as part of their curricula. One of the new areas in leader preparation is blended or online principal preparation programs (e.g., Korach & Agans, 2011). On the one hand, offering online instruction is the new direction in education, from massive open online courses (MOOCs), to online webinars and professional development seminars, to blended or courses and programs delivered entirely in the online format that are increasingly offered by the U.S. universities. Also, some international universities are adopting this model. On the other hand, online delivery may limit or fully eliminate face-to-face interaction that is important to promote connectedness among the students of principal preparation programs (Choi, Browne-Ferrigno, & Muth, 2005).

In addition to restructuring traditional university-based leadership preparation, states, school districts, and professional organizations have suggested alternative forms of leadership preparation. Among the most known are the initiatives of the Danforth Foundation (Murphy, Moorman, & McCarthy, 2008); the Wallace Foundation (Wallace Foundation, 2009, 2012); and alternative principal certifications offered by professional and for-profit organizations (Murphy et al., 2008). In spite of the short existence of such programs, there is a growing

interest in them, heated by the research reports indicating that these alternative preparation programs are more rigorous and more effective than traditional programs (Militello, Cajda, & Bowers, 2009), graduating better-prepared candidates for school-level leadership positions (Bradshaw, Perreault, McDowelle, & Bell, 1997).

A separate place in principal preparation literature is given to collaborative programs. Collaboration can occur at the state level (Williams, Burns, Johnson, & Lindle (1996) or at a district level (Wallace Foundation, 2008). One aspect of this approach to preparing school principals is partnering school districts with the universities to equip aspiring school leaders with practical and theoretical knowledge necessary to succeed as a principal (Hale & Moorman, 2003; Mohn & Machell, 2005). Overall collaborative preparation programs are believed to be “of better quality and [...] more effective, particularly in their instructional leadership ability, capacity to transition well into leadership roles, and understanding of district functions and processes” (Orr, King, & LaPointe, 2010, p. 120).

Study Purpose

Notwithstanding the growing interest in the topic, research reports that principal preparation has not been systematically examined and calls for more research in this area (Hallinger, 2003; Cowie & Crawford, 2007). One of the promising trends in leadership preparation is university-school district partnerships that are often suggested as a more effective way to prepare principals (e.g., Orr, 2006). Notably, a recently published review of international patterns in principal preparation emphasizes collaboration among government, university, and schools as a common feature of high-quality leader preparation programs (Walker, Bryant, & Lee, 2013). However, because this form of delivery is relatively new, it should be further examined to outline potential areas in need of improvement. Therefore, the purpose of this systematic review is to (1) conduct the systematic search of the literature to identify the studies on partnerships in school leader preparation; and to (2) systematically review the findings of these studies and synthesize them into major themes reflecting the state of the art in collaborative leadership preparation in the United States.

The information about the state of collaborative leadership preparation in the U.S. is readily available from numerous sources such as research articles, reports, and executive summaries. The present article does not provide an original study; instead, it offers a synthesis of research on what is known on the topic. In so doing, it offers a summary of the major themes from original studies, thus contributing to the literature on educational preparation and to the larger field of educational administration.

Methodology

This study was conducted in three steps: (1) systematic literature search; (2) critical assessment of the identified articles; and (3) thematic synthesis of the articles. First, to identify published research on the topic of interest, a systematic search of the major educational research databases was conducted. Specifically, five online databases were searched JSTOR, EBSCO, SAGE Journals Online, ScienceDirect and Web of Science. Search terms included: ‘leader preparation,’ ‘principal preparation,’ ‘district partnership,’ and ‘university district partnership,’ and ‘collaborative leader preparation.’ The initial search returned over 3000 entries; however, when the search was modified to include either

‘partnership’ or ‘collaboration,’ the number of entries reduced to fewer than 300. The titles and abstracts of these entries were screened to examine their fit to this analysis. Criteria for inclusion in this systematic review were: (1) qualitative (or predominantly qualitative) research design; (2) English language of the manuscript; (3) focus on the U.S. context; and (4) the publication date between 2007 and 2013. This timespan was selected to include the most recent published studies to reflect the state of the art of collaborative leaders preparation in the USA. In total, there were 26 studies selected at this stage and used in the next step.

Second, a critical appraisal of the identified articles (n=26) was conducted. To assess the studies, an instrument developed by the Critical Appraisal Skills Programme (2006) was used. The instrument contained 10 questions aiming to assess the rigor, credibility, validity, study design, relevance to this analysis, and the overall merit of the manuscript. If the article assessment was over 25 points (out of 36 possible points), the article was included in the subsequent thematic synthesis. This step was added to include only high-quality relevant studies, not all studies found on the topic. Therefore, the sample was purposive, not all-inclusive (Doyle, 2003), aligned with qualitative methodology. In addition, when the articles were identified, their references were screened for additional relevant articles; if the title seemed related to the topic of interest, the manuscripts were sought after and included in the analysis. In total, there were 10 manuscripts selected for this analysis: 8 of them were research studies and 2 were research reports (Fry, Bottoms, O’Neill, & Walker, 2007; Orr, King, LaPointe, 2010). I chose to include these research reports in this analysis because they (1) focused on the topic of interest and (2) summarized the data on collaborative leader preparation from several states, thus offering a broader perspective on the topic.

Third, thematic synthesis of the selected articles was conducted. I used inductive approach to thematic coding, starting with the data from the original studies, then developing descriptive themes that were close to the original studies, and then abstracting the major themes into the analytical themes. The process followed the steps suggested for the thematic synthesis of qualitative research (Thomas & Harden, 2008). Overall, the theory behind thematic synthesis is examining the primary studies to identify and develop major descriptive and analytic themes (Thomas & Harden, 2008). The body of the analyzed articles was loaded into the ATLAS.ti where the text was coded. For the research articles, the sections titled ‘context’ and ‘findings’ or ‘results’ was coded and used in this analysis. For the research reports, I coded the majority of the text, specifically focusing on the sections devoted to presenting the descriptive and perception data about the topic. Upon the initial coding, the codes were grouped into categories. Then, descriptive themes were developed (presented in the findings section). Finally, descriptive themes were grouped into analytical themes (detailed in discussion).

Findings

The studies used in this analysis varied greatly in scope and focus (see Table 1). First, the programs ranged from recently introduced to those with over 10 years of existence. Second, the data used by the original studies were collected from different stakeholders (e.g., university-level providers; district-level leaders; program students), thus focusing on different aspects of the topic.

Table 1
Studies at a Glance

#	Authors, Year	Leader Preparation Program(s)	State(s)	Data From
1	Goduto, Doolittle, and Leake (2008)	17 preparation programs offered by the state's universities; statewide efforts to improve leader preparation	New Jersey	University-level providers
2	Kochan (2010)	12 preparation programs offered by the state's universities; statewide efforts to improve leader preparation	Alabama	College deans
3	Reames (2010)	Instructional Leadership Program of Auburn University	Alabama	Stakeholders, students
4	Reed and Llanes (2010)	Principal preparation program of Auburn University, redesigned as partnership with 7 school districts	Alabama	University-level providers
5	Korach and Agans (2011)	Blended online program, modified from the innovative classroom-based principal preparation program	Not specified	University-level providers
6	Sanzo, Myran, and Clayton (2011)	The Futures program [pseudonym], a fine-year project funded by US DoE grant, aimed at developing a the university-school district partnership	No specified	University and district stakeholders, students
7	Davis and Darling-Hammond (2012)	5 innovative principal preparation programs – described as exemplary university-based programs (unlike previously examined programs, these programs have existed for over 10 years, thus showing clear outcomes)	Mississippi, Connecticut, New York, California, Illinois	Students, program directors, program description
8	Orr (2012)	6 leadership preparation programs based on the district-university collaboration	Massachusetts, Kentucky, Rhode Island, Missouri, Illinois	District and university officials; programs' features

Third, some studies focused on one specific collaborative program (thus, providing more details about a specific partnership initiative), while others offered a comparative overview of several university-school district partnerships (the broader scope limited the ability to offer many context-specific details pertaining to specific partnerships examined). However, these differences were considered an advantage in this analysis, allowing to compare and combine the perspectives of multiple stakeholders involved in university-school district partnerships and to include more collaborative leader preparation programs in this synthesis.

The two larger research reports (see Table 2) also covered numerous leader preparation programs. However, not being constrained to the word limit of a research article,

they offered greater details into leader preparation programs they examined. An additional benefit of including these two reports was their attention to the state regulations and policy implications pertaining to improving school leader preparation in different contexts. Finally, they assessed the quality of the programs examined, thus adding an additional lens of comparison.

Table 2
Research Reports at a Glance

#	Author(s), Year	Report Focus	State(s)	Data from
1	Fry, Bottoms, O’Neill, and Walker (2007)	Examination of learning-centered school leadership systems, advocated by the Southern Regional Education Board (SREB) – brief overview of progress in 16 southern states	Alabama, Louisiana, Maryland (as exemplary states)	States’ leader preparation programs (content, description, assessment)
2	Orr, King, and LaPointe (2010)	Case studies of eight urban districts’ approaches to developing school leaders, followed by the cross-case analysis and comparison. Note: one of the districts was not affiliated with a university.	Massachusetts, Kentucky, Rhode Island, Missouri, Illinois Indiana	Program description and features; perceptions of district and university officials; students

Major Themes

Thematic synthesis of these articles and reports yielded seven major themes pertaining to the development and implementation of collaborative leader preparation. They are provided in the remainder of the findings section, along with supporting references.

University-School District Collaborations: Driven by Local Initiatives, Guided by State Mandates

Collaborative efforts of universities and school districts to redesign leader preparation stemmed in response to criticisms about inadequate university programs to prepare effective leaders for modern schools (Sanzo, Myran, & Clayton, 2011) and the expressed necessity to redesign principal preparation to better meet the needs of schools (Fry, Bottoms, O’Neill, & Walker, 2007). One of the key critiques of traditional leader preparation was the disconnect between the theory taught in the preparation programs and practical realities of school districts (Sanzo, Myran, & Clayton, 2011). Thus, collaborative leader preparation programs offered a way to bridge theory and practice (Goduto, Doolittle, & Leake, 2008; Sanzo, Myran, & Clayton, 2011) by preparing students to deal with authentic problems faced by school leaders (Reed & Llanes, 2010). Universities adopted a more inclusive approach to leader preparation by including practitioners to avoid reinventing the same programs that university programs

previously exhibited (Goduto, Doolittle, & Leake, 2008). For school districts, this approach was a way to impact university program changes to meet the district's needs (Orr, King, & LaPointe (2010). For universities, it offered an opportunity to expand the program beyond the minimum licensure requirements (Orr, King, & LaPointe, 2010). Notably, in many cases, these collaborations were driven or even mandated by the state policies (e.g., Davis & Darling-Hammond, 2012; Goduto, Doolittle, & Leake, 2008; Kochan, 2010; Reames, 2010; Reed & Llanes, 2010). Furthermore, the states' regulatory policies and regulations about program accreditation, licensure requirements, and professional standards greatly impacted and guided program development and implementation (Fry, Bottoms, O'Neill, & Walker, 2007; Orr, King, & LaPointe, 2010). In summary, although universities and school districts were instrumental in developing and sustaining collaborative partnerships, these efforts were guided and, in some cases, initiated by the state policies and standards set by professional organizations.

Content and Implementation: Standards-based, Experiential Activities Aimed at Bridging Theory and Practice

First and foremost, restructured programs have higher admission standards, rigorous recruitment and selection, and candidates' assessment (Davis & Darling-Hammond, 2012; Orr, King, & LaPointe, 2010). Because of the critiques of the traditional courses, the content of collaborative leader preparation was redesigned (Orr, King, & LaPointe, 2010) to include the focus on data-based decision making (Davis & Darling-Hammond, 2012). Specifically, curriculum was redesigned based on the standards, literature review and the partner school district needs (Orr, 2012; Reames, 2010). In addition, program content included standards-based activities, guided mostly by the ISLLC standards (Davis & Darling-Hammond, 2012; Fry, Bottoms, O'Neill, & Walker 2007; Goduto, Doolittle, & Leake, 2008; Orr, King, & LaPointe, 2010). Also, course integration aimed at connecting theory and practice (Sanzo, Myran, & Clayton, 2011) promoted integrating district-defined competencies in leader preparation courses (Korach & Agans, 2011; Orr, King, & LaPointe, 2010). In addition, contextually relevant activities were encouraged as an effective addition to traditional approaches (Davis & Darling-Hammond, 2012; Sanzo, Myran, & Clayton, 2011).

Experiential learning was regarded as especially important (Orr, King, & LaPointe, 2010). The most valued and effective experiential learning was a lengthy internship (Davis & Darling-Hammond, 2012; Fry, Bottoms, O'Neill, & Walker, 2007), with some districts providing a full-time, paid, one-year internships to their aspiring leaders (Orr, King, & LaPointe, 2010). Other types of experiential learning included learning communities (Goduto, Doolittle, & Leake, 2008); supervision and mentoring (Davis & Darling-Hammond, 2012; Fry, Bottoms, O'Neill, & Walker, 2007; Orr, King, & LaPointe, 2010; Reames, 2010; Sanzo, Myran, & Clayton, 2011); and field-based coaches (Reames, 2010). Instructional methods combined traditional forms of delivery with team teaching (Reames, 2010), online discussions (Korach & Agans, 2011), and novel instructional methods such as think tank activity (Reames, 2010). The overall focus of the program was developing a professional learning community (Reed & Llanes, 2010) to promote lifelong learning.

Practitioner Involvement: Important at All Stages of Collaborative Partnership

The programs presented in the studies used for this analysis differed in the level of practitioner involvement. Typically, university leaders involved practitioners in:

- a. Developing program admission criteria (Fry, Bottoms, O'Neill, & Walker 2007; Orr, King, & LaPointe, 2010; Reames, 2010);
- b. Curriculum development (Goduto, Doolittle, & Leake, 2008; Orr, King, & LaPointe, 2010);
- c. Selecting candidates (Davis & Darling-Hammond, 2012; Fry, Bottoms, O'Neill, & Walker, 2007);
- d. Teaching some classes on partner school campuses (Reames, 2010);
- e. Serving on the committees and advisory councils (Fry, Bottoms, O'Neill, & Walker, 2007; Reed & Llanes, 2010); and
- f. Providing mentoring and internship opportunities (Davis & Darling-Hammond, 2012; Sanzo, Myran, & Clayton, 2011)

The level of district involvement generally depended on the interest of the district leadership in the collaborative work and on the initial agreements between the university and the district.

Successful Collaborative Partnerships: Prioritizing Trust, Relationship-building, and Program Ownership

As with any collaborative effort, university-school district partnerships should be based on trust and clear and frequent communication of the partnering sides (Goduto, Doolittle, & Leake, 2008; Reames, 2010). Notably, good long-standing previous relationships of university staff with school personnel were critical for the partnership (Davis & Darling-Hammond, 2012; Kochan, 2010; Reames, 2010; Reed & Llanes, 2010), Sanzo, Myran, & Clayton, 2011). Furthermore, different types of relationships (Orr, 2012) should be sustained; specifically, inter-organizational (between districts and universities); intra-organizational (between the program and other district units); and intra-organizational (between the program and other university units). Developing a sense of shared ownership was considered an effective approach to increase partnership sustainability (Goduto, Doolittle, & Leake, 2008; Reed & Llanes, 2010). Finally, the involvement and support of university and school-level leadership and support from the state department of education were crucial to the success of such collaborative work (Kochan, 2010).

Barriers to Implementation: Time Management, Lack of Support, and Fiscal Challenges

Challenges to effective development and implementation of university-school district partnership came from the university, school district, and external sources. University and school-level leaders were concerned about increased workload and time management (Reed & Llanes, 2010; Sanzo, Myran, & Clayton, 2011); staff and leadership turnover and related staffing issues (Orr, King, & LaPointe, 2010; Orr, 2012; Reed & Llanes, 2010); the lack of administrative support, and the lack of clarity about what to expect (Kochan, 2010). In addition, partnerships were vulnerable to the university and school district politics (Korach &

Agans, 2011). Although leaders' initial apprehension and resistance to change were alleviated (Kochan, 2010; Sanzo, Myran, & Clayton, 2011), later stages of program functioning included partnership-related issues such as adding new partners (Reed & Llanes, 2010) and financial challenges (Davis & Darling-Hammond, 2012; Orr, King, & LaPointe, 2010).

Collaborative Programs' Successes: Perceived as More Effective in Preparing Effective Leaders

Although in most cases it was too early to assess the real impact of this redesigned form of leader preparation on the graduates and the schools they lead, early evidence is generally positive and promising. Compared to traditional leader preparation, these programs are believed to offer better or improved leader preparation (Davis & Darling-Hammond, 2012; Orr, King, & LaPointe, 2010). Additionally, these programs consistently receive more positive student feedback and higher ratings (Davis & Darling-Hammond, 2012; Sanzo, Myran, & Clayton, 2011). Most importantly, the graduates of exemplary partnership programs have higher administrative employment rates upon graduation, higher rates of passing the state licensure assessment, and improve the schools they lead (Davis & Darling-Hammond, 2012). Furthermore, research points out direct and indirect educational and organizational benefits: more highly qualified applications; district learning; and benefits for the universities (Orr, King, & LaPointe, 2010). Yet, these successes should be considered with caution, not assuming that they automatically apply to all collaborative partnerships, especially given their context-specific nature that does not allow to combine them all in one category.

The Lessons Learned: Importance of Partnering; Building Relationships; and Connecting Program Content to the Districts' Realities

Overall, the main learning from implementing such partnership is the importance of both sides to the success of the collaborative initiative. The success of these programs emphasizes the critical role of practitioners in redesigning leader preparation (Goduto, Doolittle, & Leake, 2008; Reames, 2010; Reed & Llanes, 2010). Universities and districts should draw on their areas of expertise to benefit the partnership initiative (Orr, King, & LaPointe, 2010). Furthermore, building strong relationships is key to the initiative's success (Orr, King, & LaPointe, 2010; Reames, 2010; Reed & Llanes, 2010). Given the importance of funding to sustain the program, there is a need to look for other funding sources to fund integral components of the programs (Orr, King, & LaPointe, 2010). Also, the general consensus was that effective programs focus on collaboration, are problem or project-based; and concentrate on real-life problems (Korach & Agans, 2011; Sanzo, Myran, & Clayton, 2011). Finally, it is important to involve external reviewers (Goduto, Doolittle, & Leake, 2008; Kochan, 2010; Reames, 2010; Reed & Llanes, 2010) and to evaluate these programs to identify the areas in need of improvement (Korach & Agans, 2011; Orr, King, & LaPointe, 2010)

Discussion and Conclusion

Descriptive themes reflected predominantly optimistic view of collaborative leader preparation. Although the barriers and challenges were acknowledged, the promise of better-prepared leaders who will improve schools and increase student achievement outweigh the

concerns. In the remainder of this paper, I will present five major analytical themes pertaining mainly to the sustainability of the initial success of such collaborative leader preparation programs that were developed based on the description of the sample of such programs (and most of them were considered effective) in the analyzed articles and reports. The majority of published work on university-school district collaborative initiatives to leader preparation is positive about these redesigned programs, hopeful about their promised successes. I aim to contribute to this dialogue by pointing some troubling aspects of such collaborative approach.

Vulnerabilities of Collaborative Programs: Strong Dependence on State Policies and Leadership Support

Research indicates that the majority of these programs were initiated in response to the state policies demanding the inclusion of districts in leader preparation. This aspect is important to keep in mind because if the state policy changes, it may be detrimental to these programs that depend on state support. Furthermore, the success of the collaborative approach is grounded in the support of the university-level and district-level leaders. Thus, if one side loses an interest, or if leader turnover is high (which is the case for most school districts around the country), the impact on the leader preparation program will be noticeable, and, most likely, detrimental.

Sustainability Concerns in the Era of Limited Funding

Another concern mentioned by all studies examined for this analysis is the lack of funding to support all the effective components of collaborative leader preparation programs (e.g., mentoring, coaching, paid full-time internships). The state, US DoE, or professional organization grants initially fund most of these collaborative initiatives. However, the question remains—how to fiscally keep the program when the grant is over? Financial concerns are especially important nowadays, in an era of funding cuts. Some researchers suggest looking for alternative funding sources. However, those may not be readily available to poor local school districts. On the other hand, if trimming the budget would mean that these programs would have to drop their most costly program components (e.g., internships, mentoring), it is questionable if the program will be able to graduate the candidates as well prepared without these essential components.

Keeping up the Good Work after the Novelty Wears Off

The majority of these collaborative leader preparation programs are new. Naturally, this aspect makes it hard to assess the real impact and effectiveness of such programs in preparing good school leaders. Even if the initial reports about the successes of these programs are true, there is still a doubt if the good work will continue after the novelty wears off. Given that it has happened to other initiatives in the past, it is plausible to suggest this as a potential outcome. The changes in leadership, introduction of some other new initiative, shifts in mission, vision, and priorities—all of these may cause the decrease in the interest towards these collaborative programs, leading to eventual decay.

Dangers in Preparing Leaders Tailored to the Needs of the Specific District

One of the lauded strong aspects of collaborative leader preparation is tailoring preparation courses to the needs of the specific district. While it has undoubted benefits, it can also be potentially harmful. For example, if the graduate of a leadership program is prepared to the needs of a specific rural school district, it may limit his or her changes to obtain a position in a remote rural school district. Also, if the school district expresses strong preference for hiring principals who went through leadership preparation tailored to this district needs, it may not consider applicants from outside the district, thus limiting the flow of new ideas and approaches associated with hiring people with a different educational background.

Moving Online: A New Beginning or an End?

Offering online and blended courses is becoming more common and accepted. However, it is unclear whether this model of collaborative leader preparation may be moved online without losing the features that make it successful. Specifically, two articles used for this analysis offered dramatically opposite viewpoints on this issue: while for Reames (2010) offering all classes face-to-face was a clear benefit that strengthened the program, Korach and Agans (2011) explored the option of moving the program to an online blended format. Furthermore, they even suggested that blended delivery alleviated some concerns related to being vulnerable to the university and school district politics. Overall, incorporating virtual learning seems inevitable, given the current trends in higher education.

Implications and Conclusion

The findings of this synthesis of research suggest several major implications for practice, policy, and future research. From the results of this analysis, practitioners will better understand the lessons learned by universities and school districts while implementing collaborative leader preparation program and may use this knowledge in planning and developing their own partnerships. Given that the strong preexisting relationships between school districts and universities were an important requirement, both university and district leaders should focus on building stronger affiliations before developing an official partnership. The policy-makers may learn from this synthesis about the effective components of university-school district partnerships and use this knowledge to guide the development of future educational policies. Finally, the implications for research are manifold, given that this area of educational leadership is constantly evolving. Future research projects may focus on the role of leadership in developing collaborative leader preparation programs; explore additional funding sources; examine the sustainability of such innovative approaches; and study longitudinally the impact of the graduates of such collaborative leader preparation programs on school effectiveness and student achievement.

To sum up, all of the concerns presented in the discussion section are associated with sustaining the initial promise of collaborative school leader preparation as well as the possibility to move to the online delivery. Researchers, practitioners, and policy-makers should better examine these aspects. Given that collaborative partnerships are still at their infancy stage, multiple future studies will closely examine different aspects of such programs' design and implementation. Along with the studies used for this analysis, this research

synthesis is at the beginning of the discussion around the collaborative approach to preparing future school leaders.

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Formula-Based Public School Funding System in Victoria: An Empirical Analysis of Equity

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This article explores the formula-based school funding system in the state of Victoria, Australia, where state funds are directly allocated to schools based on a range of equity measures. The impact of Victoria's funding system for education in terms of alleviating inequality and disadvantage is contentious, to say the least. It is difficult to adopt the belief that equity funding can alter the unequal levels of capacity that pupils bring into the classroom as a result of their varied socio-economic backgrounds. This study highlights a number of contextual factors that challenge the equity considerations of the Victorian school funding system. Among these factors include: the ability of individual schools to raise their own funds; allocation of a significant proportion of formula funding for staff salaries without directly addressing educational disadvantages; and the unnecessary complexity of formulas and limited community access to funding information. Nevertheless, the formula-based school funding system in Victoria presents a model in which funding is tied directly to the needs of both students and schools; a uniform criteria to apply impartially to each school; an increased level of accessible information on how the funds have been deployed; a reduced level of complexity presented compared to overlapping funding models from state, district and local authorities in other jurisdictions; and an opportunity for meaningful analysis generated on the school level to explore the impact of funding and incorporate improvements in a single funding system.

Context and Purpose

In Australia, the state and territory governments are responsible for funding and regulating education within their borders; therefore, different funding and management policies exist from one state to another. For example, in Victoria, state funds are allocated directly to public schools to manage autonomously.

The education system across Australia follows the three-tier model, which consists of primary education (primary schools—Prep to Year 6), followed by secondary education (secondary schools – Year 7 to Year 12) and tertiary education (Technical and Further Education colleges (TAFEs), and universities). Nationally, school education is compulsory between the ages of six and seventeen. The majority of the 2,228 schools in Victoria are public (69%), but private schools are quite popular as well. Out of the 870,000 students in Victoria, 63% attend public schools and 37% attend private schools. Regardless, all schools are required to register with the state's education department and are subject to public standards in terms of infrastructure, curriculum and teacher registration.

The overall system of education in Victoria is administered by the Department of Education and Early Childhood Development (DEECD), while individual schools are governed by individual School Councils. There are no intermediary state boards of education or district-level school boards. The School Council assists in the efficient governance of each school; ensures that the decisions made by each school's administration are in the best interests of the students; enhances the educational opportunities of the students of the school; and ensures that the school and the Council operate within the legislative framework (DEECD, 2011a). The Council membership consists of elected officials within three categories: parents, school employees (the principal is an automatic member) and community volunteers. The principal, as Executive Officer of the School Council, must ensure that adequate and appropriate advice is provided to the Council on educational matters and that the decisions of the Council are properly implemented. The principal is accountable for the overall leadership, management and development of the school as determined by state-wide guidelines and government policies (DEECD, 2009a).

Approximately 90% of the revenue for public schools in Victoria comes from state government funding, while the federal government provides an additional 8%. Public schools in Victoria also raise approximately 2–5% of their revenue from parent payments, trading activities, grants and fundraising activities, although this level of local funding depends on the individual capacity of the school. The funding system under consideration concerns the state funds allocated by the Victorian government to its public schools.

Victoria's education funding system is known as the Student Resource Package (SRP), and has been in operation since 2005. The SRP aims to improve how schools are funded, targeting specific programs to better meet the needs of individual students and increase their overall performance. The package was designed to allocate funds with a higher degree of impartiality for each school, while also allowing for easy oversight of how the funds are used (DEECD, 2012a).

The SRP allocates its resources based on a mathematical formula (or weighted formula) that "contains a number of variables (items such as number of pupils in each grade, area of school, poverty, learning need indicators, location of schools), each of which has attached to it a cash amount" (Levacic, 2008, p. 206). These variables change considerably across Organisation for Economic Co-operation and Development (OECD) countries, with four main distinctions, including: i) student number and grade level-based; ii) needs-based; iii) curriculum or educational program-based; and iv) school characteristics-based (Fazekas, 2012).

Internationally, a conceptual dispute regarding school funding exists when deciding the unit of analysis for calculating school finance (revenue). Victoria uses each school (and its pupils) as a component for calculating and distributing education revenue directly to the schools. The use of a school district as a unit of analysis, which is common practice in the USA, has been questioned by Berne and Stiefel (1994) on the basis that most activities in a child's education occurs within their particular school. Specific schools provide more meaningful information relating to individual student's educational process, outputs, and outcomes and their strong relationship with inputs. District-level data does not explain how schools use allocated funds; therefore, the adequacy of funding to meet defined absolute performance standards becomes problematic (Roza et al., 2008).

Victoria's system of fund allocation to public schools incorporates a combination of three categories: (a) student-based, (b) school-based, and (c) targeted initiative-based funding.

Every category and sub-category of the funding incorporates formulas to ensure equal, fair and consistent distribution to meet individual student and school needs.

This paper explores how the formula-based school funding system in Victoria has been designed to meet equity considerations in terms of ensuring that the individual learning needs of students are met, and that the schools with the same level of student learning needs are receiving the same levels of funding. The paper then analyzes the impact of equity considerations, comparing the performance of Victorian students between 2010 and 2012 to the performance of students from the Australian state of New South Wales (NSW), where school- and pupil- based formula funding had not yet been implemented (NSW received formula funding in 2013). A combination of empirical research methods was applied in gathering the evidence for this paper, including the analysis of policy documents, analysis of outcome performance data that reflect equity considerations, empirical testing of assertions that emerged from education finance literature, and interviews with departmental officials and school principals.

Equity Principles in Education Finance

For policymakers, the first step in addressing student performance gaps is adjusting fiscal policy based on equity principles. According to Field, Kuczera & Pont (2007), equity in schooling includes the dimensions of “fairness” and “inclusion.” Fairness implies that personal and social circumstances are not an obstacle in achieving educational potential, while inclusion refers to ensuring a minimum standard of education for all. In the broader social context, equity refers to equality of opportunity, fairness, and social justice. In the context of educational finance, equity is a dual funding principle whose purpose is to 1) provide as much equality as possible in educational services, and 2) establish fairness in regards to the community sharing the tax burden for education (McGrath, 1993).

Equity is prone to two alternative and supplementary definitions: horizontal equity and vertical equity (Berne & Stiefel, 1984; Fazekas, 2012; Levacic, 2008). Horizontal equity refers to funds allocated equally among schools who share certain characteristics. But, this definition does not assume that all schools have comparable needs; rather, it refers to the philosophy of “equal treatment of equals.” For example, general education spending provides an equal base for all students. Thus, horizontal equity could provide a valid criterion upon which to evaluate equality of general education funding (Berne & Stiefel, 1994, p. 406).

Vertical equity is the notion that students should be treated according to their different learning needs and characteristics. This is the principle of “unequal treatment of unequals.” This also implies that “differently situated children should be treated differently” (Levacic, 2008). Vesely & Crampton (2004) accepted the notion that vertical equity is a more complex and difficult concept to operationalize. The concept of vertical equity stresses that if students have different educational needs, an equitable state funding system should provide different levels of funding to meet these needs (Rubenstine et al., 2000). Therefore, in order to apply the vertical equity concept, one has to identify the relevant “differences in learning needs” which are typically defined in terms of educational input needs to achieve a defined level of performance (Berne & Stiefel, 1999).

Although the concepts of vertical and horizontal equity are fairly straightforward, constructing valid measures of each has been a complex task. The international community agrees that providing funding for education programs to help children who are at risk of

academic failure is imperative. The Gonski Panel (2011) noted five factors of disadvantage that have a significant impact on educational outcomes in Australia. These include: socio-economic status, indigeneity, English language proficiency, disability at the student level, and remoteness at the school level. After analyzing a substantial body of research, Land and Legters (2002) identified five of the most frequently cited factors that determine a student's likelihood of academic failure. They include: poverty, race or ethnicity, limited English proficiency, poorly educated parents, and single-parent status. In addition, they noted that disability and urbanicity are factors associated with academic failure. Toutkoushian & Michael (2007) concluded that Land and Legters' list mentioned above provide a good assessment of state education funding systems committed to the idea of vertical equity. Land & Legters (2002) also found poverty to be the most consistent predictor of academic failure. At the same time they noted the compound nature of risk in terms of some students falling into more than one category. Students with a "compound disadvantage" are at an even higher risk of poor academic performance, and require more intensive support to reach their full potential (Gonski et al., 2011). It is important to note that all these at-risk factors identified by Land and Legters are beyond the control of schools despite the fact that they are expected to "fix" the consequences of these factors. King (1994) observed that, in general, the term "at-risk" refers to students who demonstrate low academic achievement, failure to advance a grade, poor attendance rates, and high dropout rates. These aspects appear to be within the schools' control. Therefore, despite the fact that the formula-based system of funding is necessary when considering the at-risk factors that influence academic failure, more focus should be given on the factors that the schools can control.

The academic failure of at-risk students raises serious issues of social justice and equity. Directing more revenue to achieve vertical equity can produce greater overall inconsistency in funding across districts and thereby reduce horizontal equity. There are fundamental issues in relation to how much additional resources are required for at-risk students to succeed. Bifulco (2005) noted that there is little consensus on how much additional funding per pupil is needed for poor students relative to non-poor students. It has yet to be determined which vertical equity characteristics of students or schools deserve increased financial support. In addition, government officials have yet to identify the appropriate magnitude of these differences (Toutkoushian & Michael, 2007). Baker & Friedman-Nimz (2003, p. 528) described the problem, stating, "The phrase [vertical equity] raises two questions: (1) who is unequal...and (2) what constitutes appropriately unequal treatment (i.e., how unequal is unequal enough)?" At this stage, determining the magnitude of the weights in equity funding has yet to be adequately supported (Reschovsky & Imazeki, 2001). This raises the issue of effectively evaluating the magnitude of at-risk factors and then allocating state funds accordingly. It is imperative to build a better understanding of the nature of funding for at-risk children to create a more definitive system for vertical equity.

Transparency and accountability are two other concepts that go hand in hand with the equity considerations of education funding. How resources are spent should be information that stakeholders can access easily (Ross and Levacic, 1999). The introduction of a formula-based funding allocation system is anticipated to increase the transparency of school finances both for public authorities and for external stakeholders, because it itemizes quite clearly where funds are allocated. This increased transparency contributes to the accountability of schools (Fazekas, 2012). Ability to track funds from all sources to the school level will shed light on (in)equality, and it will provide stakeholders with information regarding the total

amounts being allocated and spent. Transparency of fiscal allocations is critical for stakeholders to ensure comparability in base allocations and fairness in targeted allocations (Roza, et al., 2008).

There are a number of perspectives in education finance literature that can be applied in the analysis of a formula-based funding strategy that directly allocates to schools. They include: whether or not the funding system is comprehensive enough to ensure that schools with similar characteristics are funded similarly; whether or not differently situated children are treated differently, taking into consideration the “at-risk” and disadvantage factors; whether or not transparency and accountability of the system are ensured; and whether or not a reasonable level of outcome data support the equity considerations of the funding system.

Victorian Formula-based School Funding System

The SRP contains three funding categories, and then a number of sub-categories (Table 1) which apply specific formulas and metrics. Student-based funding is the major source of resources to schools (90%), and is driven by students’ level of schooling, their family’s socio-economic status, and their community’s characteristics. This component covers the costs of core teaching and learning, school’s administration, teaching support programs, professional development, payroll tax and superannuation. School-based funding focuses on school infrastructure and programs specific to individual schools (DEECD, 2012a).

Fund allocations for schools in each component are nominated in credit and/or cash. The credit component contains allocations for staff salaries paid on the central payroll, while the cash component contains cash allocations for discretionary use by schools to meet expenses incurred locally. The components that represent both credit and cash are divided approximately 90% as credit, and approximately 10% as cash. To a certain degree, schools can switch funding between credit and cash within the guidelines of the DEECD and depending on the individual school’s circumstances.

Table 1
Distribution of SRP Funding in 2012

Category/ Sub-category and components	Sample of formulas, metrics and indices	Equity principles	Funding 2012 (\$m)	%
A. Student-based funding				
Core student allocation – (Per student funding, enrolment link base, small school adjustment, rural small school adjustment)	<ul style="list-style-type: none"> Per-student price with the base amount being a safety net Learning weightings for each year level considering potential impact Extra base and per student funds for small and rural schools 	Horizontal/ vertical	\$3,658	80.4
Equity funding – (Student family occupation index, middle years equity, secondary equity, mobility allowance, program for students with disabilities, special school complexity allowance, interpreter staff salaries, medical intervention support, special school transport additional cost, English as an Additional Language grants)	<ul style="list-style-type: none"> Per-student rate for schools exceed median state Student Family Occupation (SFO) density Levels of disability index for each student with disability Integrated weighted index for allocating funds for primary and secondary students in English as Additional Language (EAL) Schools with national standardised tests scores for English and Maths in \$15% average score 	Vertical/ horizontal	\$515	11.3
B. School- based funding				
School infrastructure – (Contract cleaning, cross infection prevention, ground allowance, building area allowance, split and multi-site allowance, utilities, maintenance and minor work funding, essential services funding)	<ul style="list-style-type: none"> Per square meter entitlements for building area, cleaning, ground maintenance, etc. Historical data for utilities Allocation based on entitlement area for maintenance and minor work 	Horizontal	\$212	4.6
School Specific programs – (Prep-12 complexity allowance, location index funding, science and technology teachers, instrumental music programs, language assistants, bus coordination, country area program grant, alternative and ancillary teachers assistance)	<ul style="list-style-type: none"> Administration complexity allowance per school Per school and per student funding for schools outside Melbourne metropolitan area EFT teacher funding at teacher price Funding for eligible schools under a criteria 	Horizontal/ vertical	\$75	1.6
C. Targeted initiatives				
Targeted initiatives – (Primary welfare, senior-secondary re-engagement, Secondary teacher assistants, managed individual pathways, Vocational Education Training in Schools grant)	<ul style="list-style-type: none"> Student family Occupation Index – levels Base rate plus student rate Average costs for vocational education training 	Vertical	\$90	2.1
			\$4,550	100

Measures of Horizontal and Vertical Equity

The “Core Student Learning Allocation” contains approximately 80% of the SRP funding to each public school in Victoria. The examination of various formulas used reveal that the category is represented by both horizontal and vertical equity principles.

The main feature of the Core Student Allocation is the per capita allocation for students from Prep to year 12 for all schools in Victoria. The per-student allocation system in the SRP is based on research in Victoria’s public schools that identify the cost of gaining successful outcomes in a representative sample. This allocation is based on the assumption that differing costs associated with delivering effective educational outcomes at various levels of learning are to be recognized by differing rates. All students within each particular grade are entitled to an equal level of funding. The sub-category, “Enrolment Linked Base,” provides per school funds to different schools with different student body sizes and composition. Two additional variations of per school funding include the “small school base” and the “rural school size adjustment.” A complex formula is utilized in allocating these funds.

Vertical Equity Measures Addressing Disadvantage

There are four categories of funding based primarily on vertical equity principles, including: (a) Equity Funding, built on the socio-economic profile of the student population; (b) Program for Students with Disabilities (PSD); (c) English as an Additional Language (EAL); and (d) Targeted Initiatives. The Equity Funding component is built on the socio-economic profile of the student population, which comprises the funding that is based on the “Student Family Occupation (SFO) Index.” There are five categories of occupations that are considered for the SFO index, and each category is given a weight. The SFO funding supports programs that focus on students who are at risk of not achieving success at school - with emphasis on students with literacy problems. The funding allocation is per student rate and based on a complex formula.

The “Middle Years Equity” funding provides additional targeted funds to public schools that have high concentrations of disadvantaged students in their middle years, while Secondary Equity funds are for schools with high concentrations of students who are at risk of not achieving expected levels in literacy and numeracy. Funding for the Program for Students with Disabilities is a credit grant to schools; schools are funded for each eligible student with a disability based on one of six levels. The resources are allocated to provide specialist staff, teacher’s professional learning, specialist equipment, and educational support staff. Funding for English as an Additional Language (EAL) is provided to schools to overcome language disadvantage. The EAL funding is based on an integrated weighted index for primary and secondary students.

Targeted initiatives include programs with specific targeting criteria and/or defined life spans, and fall largely within vertical equity principles. Primary welfare initiatives support students who are at risk of disconnecting from school and not achieving a certain level of literacy, numeracy and participation in learning. The Senior Secondary Re-engagement initiative aims to retain students at high risk of disengaging from education and training and to re-engage students who have already left school or are closer to dropping out. Managed Individual Pathways is a cash allocation strategy for schools to provide all students aged 15

and over with an individual career action plan, along with associated career development support, to successfully transit through senior secondary to further education, training or employment.

Impact and Issues Relating to the Funding System in Victoria

The state of Victoria targets at-risk students on the basis of disadvantaged socio-economic backgrounds (poorly educated parents and less exposure on average to formal education), limited English proficiency, and disability. Further, urbanicity has been taken into consideration to minimize disadvantage for students in rural areas. The Student Family Occupation Index accommodates broader family-based socio-economic characteristics, thereby compounding the effect. However, educational performance data show that there are significant educational performance gaps between distinctive ethnic groups; in particular there is a clear gap of academic performance between indigenous (Aborigines or Koori) students and non-indigenous students in Victoria.

Table 2 shows tracking of NAPLAN's (National Assessment Program - Literacy and Numeracy) reading and numeracy performance data of all students in Victoria from 2010 to 2012. It is indicative that indigenous students performed 10% lower than non-indigenous students. The non-indigenous students' progress from 2010 to 2012 has been stable while the indigenous students' progress has been uneven. Indigenous metropolitan students generally performed better than their provincial counterparts. Children living in the most socio-economically disadvantaged and remote Australian communities are the most vulnerable and consequently develop severe learning difficulties. The comparative data between NSW and Victoria shows that Victoria is slightly ahead in overall performance. Indigenous student performance is a politically sensitive issue for Australia. Despite the effort of successive federal and state governments, Indigenous Australians remain severely disadvantaged, and poor educational attainment is the key barrier to sustainable improvements in their socioeconomic status. Outside the SRP funds, there is separate state and federal funding initiatives to raise indigenous students' academic performance, reduce their school's dropout rate, reduce absenteeism, and increase school retention. The indigenous factor does not solely represent the SRP, however; rather, it is taken into account through a number of compound disadvantage equity measures. Performance results indicate that increased and targeted support for the indigenous community is warranted.

Table 2
Performance of an Indigenous Cohort of Students from 2009 to 2012

Performance area/ Categories	VIC-2010 results at or above national minimum standards (%)	VIC-2012 results at or above national minimum standards (%)	Performance increase or decrease (%)	NSW-2012 results at or above national minimum standards (%)
NAPLAN Year 3 Reading				
<i>Indigenous</i>	87.0	84.9	-2.1	83.0
Non indigenous	95.5	95.5	0.0	95.0
<i>Metro Indigenous</i>	95.6	95.4	-0.2	86.9
Metro non-indigenous	96.1	95.7	-0.4	95.7
<i>Provincial indigenous</i>	94.7	94.3	-0.4	81.3
Provincial non-indigenous	95.4	94.8	-0.6	94.2
NAPLAN Year 3 Numeracy				
<i>Indigenous</i>	86.5	85.9	-0.6	82.9
Non indigenous	95.9	95.9	0.0	95.7
<i>Metro Indigenous</i>	86.6	88.1	1.5	86.9
Metro non-indigenous	96.0	96.0	0.0	96.1
<i>Provincial indigenous</i>	86.4	84.0	-2.4	81.0
Provincial non-indigenous	95.6	95.4	-0.2	94.4
NAPLAN Year 5 Reading				
<i>Indigenous</i>	84.8	81.4	-3.4	77.6
Non indigenous	94.6	94.4	-0.2	93.7
<i>Metro Indigenous</i>	89.2	83.1	-6.1	81.8
Metro non-indigenous	94.9	94.7	-0.2	94.0
<i>Provincial indigenous</i>	81.2	79.7	-1.5	75.4
Provincial non-indigenous	93.6	93.5	-0.1	92.7
NAPLAN Year 5 Numeracy				
<i>Indigenous</i>	87.4	83.2	-4.2	80.8
Non indigenous	96.0	95.3	-0.7	95.2
<i>Metro Indigenous</i>	95.9	84.3	-11.6	85.2
Metro non-indigenous	96.2	95.6	-0.6	95.5
<i>Provincial indigenous</i>	94.8	82.0	-12.8	78.3
Provincial non-indigenous	95.4	94.6	-0.8	94.4

Source: NAPLAN National Reports 2010 and 2012

Student related factors are very influential in educational performance (Hattie, 2009). There is a close correlation between socio-economic statuses, including: educational background, ethnic background of parents, and educational performance of their children (Woermann, 2004; Hanushek & Woermann, 2011). Table 3 provides an analysis of reading and numeracy data of a cohort of students who were designated “Language Background Other Than English” (LBOTE). It is indicative that Victoria is closing the gap between LBOTE and non-LBOTE, and the difference is nonexistent in NSW. School principals believe that the students with the “language other than English” background is a factor for high educational performance in many metropolitan schools in Victoria due to the fact that many migrant parents are influential in providing a conducive environment for their children to pursue education goals.

Table 3
Performance of a Cohort of Students from 2009 to 2012 on LBOTE

Performance area/ Categories	VIC-2010 results at or above national minimum standards (%)	VIC-2012 results at or above national minimum standards (%)	Performance increase or decrease (%)	NSW-2012 results at or above national minimum standards (%)
NAPLAN Year 3 Reading				
LBOTE	94.4	93.7	-0.7	94.5
Non LBOTE	95.7	95.7	0.0	94.8
NAPLAN Year 3 Numeracy				
LBOTE	94.3	94.1	-0.2	95.0
Non LBOTE	95.7	96.1	0.4	95.0
NAPLAN Year 5 Reading				
LBOTE	93.3	92.3	-1.0	92.0
Non LBOTE	94.6	94.7	0.1	93.2
NAPLAN Year 5 Numeracy				
LBOTE	95.1	93.8	-1.3	94.4
Non LBOTE	95.9	95.4	-0.5	94.5

Source: NAPLAN National Reports 2010 and 2012

Table 4 shows that even though there is a close relationship between parent education and academic performance, the gap is narrow. Parents who completed at least 12 years of education or received some equal qualification appears to be a threshold for both Victoria and NSW students - those who had parents below this qualification achieved significantly lower grades in reading and numeracy. There is a clear relationship between parents’ occupation and students’ performance in literacy and numeracy in both Victoria and NSW (Table 5). Victoria recognizes the Student Family Occupation as a determinant in providing additional resources. It can be argued that an externally influential socio-economic factor has multiple effects on a

child's education besides current funding considerations. Parents make the decision of which schools their children should attend, how they are educated and what additional support is necessary. Private tuition arranged by parents is becoming popular in Victoria as additional support to needy children, as well as for gifted children to achieve higher. Education is valued unevenly among different cultures and families, meaning that children start their schooling already advantaged or disadvantaged. Family background, for instance, influences a child's language skills, general background knowledge, long term memory, problem-solving abilities, and working memory capacity.

Table 4

Performance of a Cohort of Students from 2009 to 2012 on Parent education

Performance area/ Categories	VIC-2010 results at or above national minimum standards (%)	VIC-2012 results at or above national minimum standards (%)	Performance increase or decrease (%)	NSW-2012 results at or above national minimum standards (%)
NAPLAN Year 3 Reading				
Parent education –Bachelor	97.7	97.7	0.0	98.1
Parent education –Diploma	96.4	96.2	-0.2	96.6
Parent education – Certificate	95.4	94.5	-0.9	94.1
Parent education –Year 12	94.8	93.9	-0.9	93.4
Parent education –Year 11	89.7	88.3	-1.4	86.5
NAPLAN Year 3 Numeracy				
Parent education –Bachelor	97.7	97.8	0.1	98.3
Parent education –Diploma	96.1	96.6	0.5	96.9
Parent education – Certificate	95.3	95.0	-0.3	94.4
Parent education –Year 12	94.5	94.0	-0.5	94.1
Parent education –Year 11	90.3	89.2	-1.1	86.7
NAPLAN Year 5 Reading				
Parent education –Bachelor	97.8	97.6	-0.2	97.4
Parent education –Diploma	96.2	95.1	-1.1	95.4
Parent education – Certificate	93.7	93.5	-0.2	92.4
Parent education –Year 12	93.8	92.7	-1.1	91.6
Parent education –Year 11	87.8	86.2	-1.6	82.7
NAPLAN Year 5 Numeracy				
Parent education –Bachelor	98.1	97.9	-0.2	98.0
Parent education –Diploma	97.0	95.8	-1.2	96.5
Parent education – Certificate	95.5	94.5	-1.0	94.3
Parent education –Year 12	95.6	94.2	-1.4	93.6
Parent education –Year 11	91.2	88.5	-2.7	86.1

Source: NAPLAN National Reports 2010 and 2012

Table 5
Performance of a Cohort of Students from 2009 to 2012 on Parent Occupation

Performance area/ Categories	VIC-2010 results at or above national minimum standards (%)	VIC-2012 results at or above national minimum standards (%)	Performance increase or decrease (%)	NSW – 2012 results at or above national minimum standards (%)
NAPLAN Year 3 Reading				
Professionals	98.1	98.3	0.2	98.1
Associated professionals	97.5	97.0	-0.5	97.3
Skilled trade people	96.2	96.0	-0.2	95.4
Manual workers	92.9	92.5	-0.4	92.1
unpaid work / unemployed	88.3	87.1	-1.2	87.4
NAPLAN Year 3 Numeracy				
Professionals	98.1	98.5	0.4	98.4
Associated professionals	97.5	97.4	-0.1	97.7
Skilled trade people	96.1	96.4	0.3	95.8
Manual workers	93.1	93.2	0.1	92.6
unpaid work / unemployed	88.4	87.7	-0.7	87.3
NAPLAN Year 5 Reading				
Professionals	98.2	98.0	-0.2	97.8
Associated professionals	96.6	96.7	0.1	96.2
Skilled trade people	94.9	94.8	-0.1	93.8
Manual workers	91.4	90.6	-0.8	89.6
unpaid work / unemployed	85.4	84.7	-0.7	82.9
NAPLAN Year 5 Numeracy				
Professionals	98.4	98.3	-0.1	98.1
Associated professionals	97.4	97.4	0.0	97.3
Skilled trade people	96.4	95.6	-0.8	95.6
Manual workers	93.7	92.4	-1.3	91.9
unpaid work / unemployed	88.7	86.7	-2.0	86.2

Source: NAPLAN National Reports 2010 and 2012

As discussed previously, the formula-based system of funding under the horizontal and vertical equity principles generally target to prevent potential disadvantage. On one hand this approach focuses less on gifted students. Evidence obtained from interviews with Victorian school principals indicate that SRP does not support gifted or academically talented students to progress. In Victoria, there are accelerated programs to assist gifted students, but without SRP provisions; therefore, principals have to manipulate funds to support these programs. Related to the same issue, the formula-based funding does not take into account

certain aspects of school admission policies, such as selective entry. There are four large, selective schools in Victoria where pupils are selected from an entry exam. These schools provide opportunities for gifted and academically talented students to perform in a competitive and demanding academic environment. The Victorian Certificate of Education (VCE) results show that these schools are among the best performing in the state (VCAA, 2012). These selective schools also receive SRP funding under equity principles, but operate in a favorable educational environment, having the advantage of fixed student numbers and stable budgets. All the principals interviewed for this project acknowledged the unfair advantage that selective schools enjoy in Victoria. Providing more public resources to less affluent communities is acceptable as promoting vertical equity, but providing more resources to affluent communities undermines it.

The SRP funding does not capture the full set of resources at a school's disposal. School Councils in Victoria are vested with the power to charge fees from parents, raise funds, and run trading operations (e.g., school canteens, uniform shops, before- and after-hour school care programs and book sales). Schools can rent out their premises, including their gyms, theaters, and school hall, to generate additional funds. Further, School Councils in Victoria have the power to receive grants from non-governmental, state and federal sources, and to enter into contracts, agreements and arrangements with other entities. Victorian schools raised \$478 million dollars from other revenue in 2012 (on average \$310,000 per public school per year). There are gaps of locally raised funds between schools in metropolitan and non-metropolitan areas and schools in affluent and less affluent suburbs (individual school information found in *My School* website). Comparative literature indicates that if local revenues play an important role in school financing, which constitutes an additional element to the funds distributed by the formula, then horizontal equity and wealth neutrality is violated. Differences in local capacity to raise additional revenues and local preferences result in horizontal inequality.

A substantial portion (approximately 80%) of SRP funds in Victoria is allocated to build staffing structures and cover staff salaries in schools. There are two potential issues in this context: On one hand, salary data might not describe full dollar costs of the resources. For example, teacher salaries are recorded at the school level, but their compensation, superannuation and fringe benefits are not assigned to schools. In some cases, superannuation and fringe benefits range between 20-35% of salary costs. In Victoria, superannuation and long-term service and termination benefits are built into staff salary allocations. On the other hand, there is an issue relating to comparability of dollars and positions. Dollars are fully comparable regardless of whether resources are devoted to personal services or not, or if there are different types of personnel employed. Two schools can have the same dollar resources per child, but one can have a much smaller number of positions at higher salaries. The devolved power in Victoria's state government assists schools in determining average class size and then making necessary changes to staff size. It can also be argued that a ratio of teachers to students does not represent the quality of teaching. The quality of the personnel matters a great deal. Experienced and well-qualified teachers are expected to apply quality teaching programs, including experimental teaching methods (Hattie, 2009). Further, there is evidence that highly qualified and experienced teachers are not equally distributed throughout remote and provincial schools; therefore, the quality of teachers is a concern in those schools. In Victoria there are minimum teacher training qualifications to become certified, but the quality of the teaching personnel and their experience and expertise is an influential factor in

improving student performance. In Victoria, schools are vested with the responsibility to allocate resources in the best interests of student learning. In these decisions there is a need to accommodate staff costs, including overhead and potential increases. The effectiveness of the funding will depend on how effectively the money is used by schools.

A state's funding program can significantly influence a school's financial management and operational behaviors. Victoria has a devolved school governing system, with a wide range of powers to make local decisions, which is receptive to formula-based funding. How valuable is the autonomous school governance system in Victoria in advancing the objectives of SRP funding? First, a School Council has the power to oversee the financial management of state-allocated funds, which contributes to making more accurate spending decisions. Second, a School Council is entitled to maintain bank accounts which facilitate the convenience for financial transactions at the local level. Third, a School Council has the power to purchase goods, equipment and materials for carrying out its functions, as subject to Section 2.3 of the *Education and Training Reform Act 2006* which enables the Council to operate effectively in the use of allocated funds. Fourth, a School Council has the power to enter into contracts with private suppliers to conduct school maintenance work. Finally, a School Council has the power to employ local workers, including education support class employees, casual relief teachers, and other non-teaching employees under Section 2.3 of the *Education and Training Reform Act 2006*. The conditions of employment for School Council employees, including rates of pay, are outlined in Ministerial Order Number 200. Generally the staff employed by DEECD (that is, on the executive level, school principal level, teacher level, paraprofessional level and education support level) are active on an ongoing basis in accordance with Department policy, and are paid through the Department's central payroll system (eduPay). Employees of School Councils who are not paid through the Department's central payroll system are paid on the local payroll module. Victorian public schools have the capacity to select the best available employees as funded through the SRP to meet the educational needs of their students.

Each school receives an SRP entitlement in September and October of each year in order to assist in planning and budgeting. The final total of funds to be received is confirmed in March of each year, after the February Enrollment Census. Since the majority of SRP funds allocated to schools is for staff salaries, principals are needed to help with workforce planning. There are training programs and guidelines for school principals on how to utilize SRP funds. In order to provide assistance to schools, the Department of Education and Early Childhood Development developed an SRP planner which allows principals to model the impact of enrollment variations and other changes in SRP and to build an overall workforce plan. The SRP planner provides salary projections and an estimate using current payroll parameters, such as job classifications, time fractions, increment dates and appointment dates. Automated reports on various aspects of the SRP are accessible to schools online. School Councils have the right to access information relating to staff positions funded by SRP; however, they are only allowed to oversee SRP cash grants and other school operating revenues. The school annual report to the community contains information on the school's operating budget, but does not show 90% of the school revenue (which is mainly allocated for staffing). The principals who were interviewed for this paper indicated that the funding formulas are complex and not transparent, but they believe that the system is fair and equitable.

Conclusion

Victoria's system of formula-based funding for public schools presents a model that allocates resources directly to schools based on individual needs and equity considerations. The system combines both conventional and innovative equity considerations in an attempt to provide an equal and fair allocation of state funds to all schools in the state. The autonomous school governance environment assists in facilitating the use of funds at individual school level.

Among the exclusive vertical equity funding considerations in Victoria are the Targeted Initiatives. The Primary Welfare and Senior Secondary Re-engagement initiatives target students who are at risk of dropping out of school, not achieving the goals of literacy and numeracy, nor completing recognized minimum school qualifications. Managed Individual Pathways is a funding program that assists all students to find a career path as well as to acquire different educational qualifications necessary to follow these paths.

The impact of Victoria's funding system for education in terms of alleviating inequality and disadvantage is contentious. With reference to the limited performance data analyzed for the purpose of this paper, the widening performance gap between indigenous and non-indigenous students in provincial areas is still observable, which demands more targeted funding for this disadvantaged group. It is difficult to conclude whether or not equity funding plays a role in the narrowing performance gap between students who do not speak English as a first language and the rest. The influence of parents' background in terms of their level of education, occupation and aspiration is evident. It is contentious to assume that the educational capacity that children bring into the school due to their socio-economic disadvantage can be largely addressed through equity funding.

The paper highlights a number of contextual factors that challenge the equity considerations of this formula-based funding system. Among them include: the significant capacity and legal right for schools to raise local funds - which create inequality among schools; allocation of funds for staffing structures and staff salaries that do not directly address academic performance; the differences in school admission policies; and complexity of the formula-based funding system and lack of community access to SRP funding information.

Nevertheless, the formula-based school funding system in Victoria offers a model where funding is tied directly to student and school needs on the basis of equity principles; a uniform set of resource allocation criteria; a more transparent and accessible level of information on how the funds are deployed at individual school level; a reduced level of complexity compared to overlapping funding models from state and local authorities in other jurisdictions; and an opportunity for realistic analysis generated on the school level to explore state funding's precise impact and incorporate continuous improvements accordingly.

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