Influencing Social Capital in Times of Change: A Three Pronged Approach to Instructional Coaching at the Middle School Level

by

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ABSTRACT

This mixed methods participatory action research study explored how an instructional coach influenced a state mandated curriculum adoption at a Title 1 urban middle school. The purpose of this study was to identify ways in which an instructional coach supported a veteran staff during the adoption of new curriculum standards. The instructional coach/action researcher employed a three pronged coaching approach that incorporated individual and team coaching sessions and increased networking to encourage and support the development of social capital. This study was informed using Vygotsky's Social Learning Theory, Wenger's Communities of Practice, Coleman's Social Capital Theory, and Hall and Horde's Concerns-Based Adoption Model. The study is heavily weighted in favor of qualitative data which includes participant reflections, coach individual session and team session reflections, field-notes, team meeting videos, and exit interviews. Several themes emerged supporting the use of a differentiated coaching approach, the promotion of social capital, and the identification of initiative overload as a barrier to curriculum adoption. The quantitative data analysis, pre and post study Stages of Concern Questionnaires, produced evidence that participants experienced minor shifts in their concerns relating to the adoption of Common Core State Standards. Results were used to inform coaching decisions based on individual participant needs as well as to augment the qualitative findings. Ideas for further research are discussed.

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CHAPTER 1 - INTRODUCTION

The current momentum of the accountability movement in American education has created an audit culture that demands results (Berliner & Biddle, 1995; Klein, 2011; Leana, 2011; Rothstein, 1993; Schuster, 2012; Sturgis & Patrick, 2010). In 1983, the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983) warned the public that American schools were failing to adequately educate students. Two decades later the language of education reform and accountability permeated the 2001 reauthorization of the Elementary and Secondary Education Act known as No Child Left Behind (NCLB). The Act requires students to participate in yearly benchmark assessments that measure grade level competencies in reading, writing, and math (U.S. Department of Education, 2001). Additionally, schools that fail to make adequate yearly progress in student achievement as measured by standardized test scores three years in a row face intervention measures by their states (U.S. Department of Education, 2001).

Currently, the Obama administration's Race to the Top program encourages strict accountability measures by creating competition for federally funded grants (U.S. Department of Education, 2011). States and school districts competing for federal grants must identify the specific measures they will employ to meet the accountability criteria. Teacher quality has also become a focal point in reform discussions as Congress works to reauthorize an Elementary and Secondary Education Act with a teacher evaluation component that may require the use of student standardized test scores to calculate student growth as a measurement of teacher effectiveness (Klein, 2011).

Concurrently, multi-state consortiums have developed a new set of shared standards that communicate student learning expectations based on college and career

readiness benchmarks; the Common Core Standards were developed by one such organization (NGACBP, 2010). Currently 45 states, the District of Columbia, four territories, and the Department of Defense Education Activity have adopted Common Core Standards (Common Core State Standards Initiative, 2012), and 22 states plus the Virgin Islands will use the Partnership for Assessment of Readiness for College and Careers (PARCC) to assess student mastery of the standards (http://www.parcconline.org) Developers of the Common Core Standards believe the new learning outcomes are necessarily more rigorous and relevant: "With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy" (http://www.corestandards.org). Additionally, the new standards encourage a pedagogical shift from a teacher-centered direct instruction model as the primary mode of instruction to a student-centered exploration and applied learning model in which students apply conceptual knowledge and skills to real world situations. For many teachers, this represents a second order change – a fundamental shift from current practice.

As education policy and practices both adapt and drive the audit culture, the pressure of the accountability movement has begun to take its toll on the teaching profession (McGuire & Gehrz, 2012). Negative media attention surrounding failing school labels, recent documentaries criticizing teacher competence, and popular opinion polls are just a few indicators the general public has deep concerns regarding teacher quality in public education (Bushaw & Lopez, 2010). In response to the performance pressures imposed on public education systems, districts are focusing their attention on developing and sustaining strong pools of effective teachers (Leana, 2011). Many states

and districts competing for Race to the Top Teacher Incentive Fund (TIF) Grants are implementing "value-added" measurements in which teachers and administrators are ranked and labeled. The term value-added is often used in the business sector as a competitive strategy to combine certain features and benefits that strongly appeal to a customer base ("Value-added," n.d.). In education the term applies to the ability of individual teachers to contribute to student achievement (Harris, 2011). Within the stipulations of the TIF grant, additional compensation may only be awarded to those teachers and administrators who have received an effective or higher rating through a value-added evaluation system that uses student growth formulas based on standardized tests as one third or more of the evaluation weight (U.S. Department of Education, 2011).

While the Race to the Top's Teacher Incentive Fund Grants place an emphasis on individual human capital (the value associated with the outcomes of an individual's teaching experience, content knowledge, and pedagogical ability), recent studies evaluating the impact of social capital (the value associated with the outcomes of collaborative professional communities) on school reform and teacher development have successfully evidenced that policymakers and public education systems may be over-emphasizing the impact of human capital and over-looking the benefits of social capital (Leana, 2011; Penuel, Riel, Krause, & Frank, 2009; Schuster, 2012). This concept will be addressed in greater depth during the literature review.

In addition to de-emphasizing the value of social capital for school reform and professional development, many schools purchase canned curriculum programs with traditional "sit and get" training models that are often didactic and consume both budgets and time. Quick fix reform gimmicks or overly complex curricular programs in place of

solid pedagogical competencies and a deep understanding of the curriculum rarely help schools or districts improve teacher competencies (DuFour & Marzano, 2011). Furthermore, initiative overload that involves complex training with limited support can cause teachers to become "resistant *from* change," cynical, and burned out (Abrahamson, 2004, p. 93).

As schools begin to evaluate their teacher development and professional support programs to build and sustain a competent teaching staff, research suggests a shift from a traditional teacher development and improvement model that emphasizes human capital, to a social learning model that balances both human and social capital (Penuel et al., 2009). In this model, understanding the local context is critical because the social relationships and competencies vary greatly from one campus to the next. Further, change agents must analyze and identify the resources and expertise available locally before attempting to establish a social network designed to improve teacher practices.

Based on my observations during a previous action research cycle, I found when there is enough human capital, in this case an instructional coach and content area teacher-leaders to support and nurture social capital, teachers can benefit from a professional learning model that occurs in a community of practice. Within this model, teams of teachers collaborate to learn and discuss new teaching strategies, plan and implement lessons and assessments, and discuss projects based on Common Core State Standards (NGACBP, 2010). This model may help teachers improve their practice and adopt new initiatives because it exposes them to an authentic application of the initiative and it allows teachers to identify competency experts among their groups.

With new value-added evaluation systems based on student achievement data and newly mandated curriculum standards, teacher attrition rates are a concern for many districts. If schools are to minimize teacher attrition rates, they will need to develop effective professional development models using applied learning strategies that are supported through a network of human, social, and cultural capital (Achinstein, Ogawa, & Sexton, 2010; Borman & Dowling, 2008). Thus the focus of this study is to observe how coaching teams and individuals and connecting human networks impact the development and sustainability of social capital, to evaluate the extent social capital impacts teachers' adoption of new curriculum standards, and to identify the barriers that inhibit the adoption of new curriculum standards. The implications of this study for instructional coaches and leaders could offer an innovative insight into the potential of developing social capital on campuses where staffs are required to implement several complex change initiatives or mandates in a very short period of time.

Local Context

School and Staff Demographics

Valley Middle School (VMS) opened its doors to students in 1981. The population within the school's boundaries includes middle and lower income level families living in apartments and single family homes. The campus serves approximately 650 students and their families with a staff that includes 26 classified staff members, 32 certified teachers, one instructional coach, one math interventionist/coach, two counselors, and two administrators.

The certified staff at VMS consists of highly qualified teachers in each content area. The teachers work in core teams that include one grade level teacher from each

content area. There are six core teams: one core team of four physical education teachers, one core team of four exploratory teachers, two seventh grade core teams and two eighth grade core teams that include teachers from each content area as well as special education teachers that support inclusion. Several teachers among the staff have worked their entire teaching career (20 or more years) at VMS. Additionally, almost three quarters of the staff have taught more than 15 years, and half are over the age of 50. The average time teaching on campus is 10 years, while 15% of the staff has worked on the campus at least 20 years.

The culture at Valley Middle School is one of support and social interaction. Teachers are quick to offer support both professionally and personally to each other. For example, one teacher became very ill during the middle of the first quarter. Immediately and with very little administrative directive, several teachers volunteered to create lesson plans, grade papers, and gather resources. Some staff members collected money for gift cards and visited the ailing teacher in the hospital. When teachers had to substitute teach during their prep hours, I did not detect signs of resentment from the staff and the absent teacher was quick to thank those who covered her classes. Furthermore, during conversations with teachers during a previous cycle of action research, I asked to whom they turned to for instructional advice or ideas, most teachers said they asked other teachers on campus who worked in their content areas, while a few teachers indicated they used the internet or asked the administration.

Change Initiatives

During the 2010-2011 school year, three major changes occurred at Valley Middle School: a first year principal was hired as the new administrator, the campus leadership

team entered into a partnership with a local community college to improve math instruction and adopt new Common Core State Standards in mathematics, and the free and reduced student lunch population increased enough to qualify the school for Title I status. These changes were in addition to a major district mandate from the year before that required campuses to use a systems approach to school improvement – a system of cyclical improvements based on goal setting, progress monitoring through data collection, and reflection and revision throughout the cycles as needed to meet the established goals (http://www.nist.gov/baldrige). The mandate also required teachers to use a specific framework to employ a systems approach to classroom continuous improvement (this is the same framework as the school improvement systems approach but at a classroom level. Student achievement goals are set for classroom populations instead of campus student populations). The systems framework required extensive training and support for all staff members at VMS. However, during a conversation with the administrator, she believed the training teachers received on the systems approach to classroom continuous improvement did not transfer effectively to classrooms as evidenced by classroom walk-through data.

Furthermore, during the 2011-2012 school year two additional change initiatives were introduced to VMS: the district mandated adoption of Common Core State Standards as the guaranteed and viable curriculum for all schools and an instructional coach was hired to support teachers on campus. Having an instructional coach on campus was considered a change initiative for many of the staff because the position was new to the district, the campus, the administrators, and the teachers. In other words, the job description for a middle school instructional coach at VMS was undefined and

ambiguous. Meanwhile, as the staff focused on adopting multiple change initiatives over a two year period of time, student achievement scores were among the few features that did not change.

Student Achievement and Campus Improvement Goals

From 2010 to 2011, the student achievement scores remained stagnant. However, in 2012 student scores increased in both math and reading (see Table 1). According to the administrator, teachers focused on using student assessment data to drive their instructional decisions as identified in the campus improvement goals for the 2011-2012 school year. Administrators monitored the teacher's use of the strategy by recording classroom-walkthrough and observation data. Also, this was the first full year math teachers collaborated and trained with the local community college math instructors to use Common Core State Standards and to create tiered math assessments.

Table 1

AIMS Math and Reading Scores for Valley Middle School

Year	Percentage of students meeting or exceeding reading standards on AIMS	Percentage of students meeting or exceeding math standards on AIMS
2010	79	58
2011	81	58
2012	82	63

(Arizona Department of Education, n.d.)

During the summer of 2012, the campus leadership team analyzed the current student AIMS scores and set a goal to increase the percentage of students meeting or exceeding on AIMS in math from 63% to 75% and in reading from 82% to 85%. They

also mandated the use of a combination of Arizona State Standards and Common Core State Standards and asked teachers to focus on teaching and learning strategies that employed higher order thinking.

Personal Context

As a first year instructional coach, I began working at Valley Middle School in the fall of 2012. My initial task was to build relationships with the teachers and administration. I attended content area and leadership meetings, visited teachers on their prep hours, rotated through three lunch periods, and conducted informal walk-through observations to gather data in each classroom. During this time, I noticed that many teachers looked uncomfortable when I entered their room or they became visibly agitated and nervous when I started conversations with them. There were several instances where teachers backed up when I stopped to talk to them, or if I walked into the lunch room, the conversation would stop for a while, and then start again but in a more reserved manner. I also noticed that when I introduced myself to the teachers during the first week of school, at some point in the introduction every teacher on campus told me how many years they had been teaching without me having to ask the question.

Coaching Approach

After the first two months of school, the administrators advised teachers who were struggling with non-performance issues to work with me to improve instructional areas identified as needing improvement on their evaluation. On several occasions, the teachers canceled planning meetings or came to the meetings without their standards or lesson plan ideas. They asked if I worked with other teachers as well, and one teacher stated he did not like it when other teachers were “uppity” and acted like they were better

than everyone else. Because of the teachers' concerns regarding instructional coaching, I approached our sessions as a peer and a co-teacher.

In the meantime, I conducted several classroom walkthroughs to check for evidence that teachers were using the Arizona Common Core State Standards. The data I collected indicated the math teachers were among the few on campus to use the new standards. Because VMS math teachers work in partnership with educators from the local community college, they are far more advanced in their adoption of the Common Core State Standards than are the other content area teachers on campus. The math teachers received specific training from college professors throughout the summer months and two days each quarter during the school year. They engage in team planning sessions one day a month, and the math interventionist acts as a support and math coach as needed. By the end of the 2012-2013 school year, the math department had collaboratively developed over 75% of their common units for both grade levels. Each unit included a cover sheet that aligned essential learning and standards to specific learning targets. Pre and post assessments were then aligned to the learning targets and were tiered to evaluate the depth of knowledge of each learning target. This process allowed the math department to implement standards based grading.

On the other hand, there was limited evidence that English language arts teachers were using the new ELA (English language arts) standards and no evidence that the science and social studies teachers were including content literacy standards in their lesson planning. When I asked them how they intended to use the new standards, most replied they would use a close reading strategy. However, after observing five lessons where teachers used a close reading activity, I quickly realized they did not understand

the purpose of close reading. For example, one social studies teacher asked students to circle all of the nouns in the paragraph. When I asked why they chose to focus on the nouns, the teacher replied they were trained that way. During a conversation with the administrator, she confirmed that teachers had received one training session on the Common Core State Literacy Standards and at that time, they were shown how to use a close reading strategy to help them incorporate more complex texts in their lessons. There were no follow-up sessions or support material for the training.

At our first half day professional development session, our administrator asked teachers to take a seventh grade English language arts (ELA) Common Core sample test. Math teachers worked on a math assessment, and the other content area teachers worked on the ELA assessment. At the end of twenty minutes our administrator asked teachers to stop and discuss how they felt about the assessment. Nearly half the teachers doubted the assessment questions were designed for seventh grade students. Once we confirmed the legitimacy of the questions, many teachers expressed their concern regarding the rigor of the test questions in relation to the current academic level taught in the classrooms.

During the weeks that followed, I observed that some teachers began to show signs of an increased sense of urgency towards implementing new Common Core State Standards. Although many teachers are still resistant to the idea of team teaching or observing other teachers model best practices, several have asked for resources and strategies. Additionally, the ELA content area teachers asked permission to attend a four day conference on literacy because several of the break-out sessions focused on strategies relevant to Common Core Standards.

Core Team Meetings

Another component of my job as an instructional coach is to co-facilitate monthly core (grade level cross content) team meetings with the math coach. During our first round of monthly meetings, teachers were unresponsive and did not ask questions. When asked what they thought an instructional coach did, more than two thirds of the teachers said they had no idea. One core team consisting of four teacher leaders on campus attended the meeting reluctantly, provided very short responses in monotone voices, and expressed their opinions that the core meetings were a waste of their time. The last portion of the meeting turned into a venting session regarding initiative overload. My co-facilitator and I de-briefed after the first meeting and decided to approach the next month's core meetings with a needs assessment and an activity to help participants create a purpose statement for the core meetings.

The second set of core meetings felt less tense. Core team members were more relaxed and talked freely during discussions. They communicated their appreciation of both the needs assessment and the purpose statement activity. As for the needs assessment, most teachers wanted Common Core resources, support for teachers (although they could not identify specifically what support they needed), and student interventions. The teachers never mentioned the idea of using a coach to help them improve their instructional or classroom management practices.

As my co-facilitator and I reflected on the conversations of each core team, we decided first to shift the focus from resources to teaching practices in an effort to help teachers understand that pedagogical shifts would be necessary in order to effectively implement Common Core State Standards. After the second set of core meetings, we

observed several classrooms and re-affirmed the need to focus on instruction first, then resource development later. We began by modeling strategies that allowed teachers to reflect on their own practice as well as the practices of the other teachers on campus. During the third set of core meetings, we split the teams into groups of no more than three teachers and we visited classrooms. After the observations, teachers de-briefed and reflected on their experience. The activity was overwhelmingly successful. Only two members in one core group were dissatisfied with the process because they felt teachers would feel threatened by the visits. The data indicated that 90% to 100% of the 20 minute observation was teacher led direct instruction, which contradicted the data indicating that 80% to 100% of the time students were authentically engaged. The conflicting data indicated the staff did not have a shared understanding of the definition of authentic student engagement. Unfortunately, while teachers were exposed to other classrooms that exemplified the need to shift instruction to include more student-centric practices, the reflective responses we gathered from the teachers did not indicate they were aware of this issue in their own practice.

Coaching Progress

During the first semester of the year I was able to develop some rapport with the teachers on campus; however they still refused my services as a coach and only approached me in regards to resources or technology support. The few teachers I worked with during the first semester were required to seek me out as part of their evaluation process. Fortunately, at the beginning of the second semester the faculties' perception of me shifted when I co-taught an English language arts class for two weeks.

Six weeks into the first quarter of the school year VMS employed a long term substitute teacher to fill in for a chronically ill eighth grade English language arts teacher. The substitute struggled with classroom management and lesson planning and subsequently student assessment scores began to drop. I was asked to step in and support the substitute until winter break at which time the administrator posted the position for hire. When we returned from break the position had yet to fill and I asked permission to co-teach the class with the new substitute teacher. Due to the tumultuous first semester, I was concerned about the students. For two weeks, I remained in the eighth grade classroom with the substitute teacher establishing a routine for the students, assessing their current achievement levels, and aligning new curriculum to implement Common Core Standards. I made connections with students and developed a strong working relationship with the substitute teacher and the special education support teacher. Behavior in all six English language arts (ELA) classes improved as students became comfortable with their new routine and understood our expectations. Once the position was filled, I remained in the classroom for an additional two weeks to ensure a seamless transition. Halfway through the second semester the student achievement scores on the district quarterly ELA assessment increased substantially.

Much to my surprise, the opportunity to work in the classroom not only allowed me to feel connected with students, but teachers began seeking me out as well. Three teachers asked if I would model a strategy or co-teach a lesson with them, and I was invited by two different teachers to observe a specific lesson and debrief it with them afterwards. As I reflect on the sudden change of my social and professional status on campus, I can only speculate that because the faculty observed me in a teaching capacity,

they now consider me a peer. Although I have made tremendous progress as a coach in developing trusting relationships with the current staff, there is still much to be done in regards to adopting the new curriculum standards.

Problem

As a new instructional coach to the Valley Middle School campus, I have had the opportunity to observe our teachers from an outsider's perspective as they work to adopt multiple change initiatives. I found that not only are teachers feeling frustrated due to initiative overload and increased accountability measures; they also appear to be professionally autonomous. Even though they have a strong sense of community at VMS and teachers occasionally turn to each other for pedagogical advice, most of their interactions with each other are socially rather than professionally oriented. Additionally, when asked, the majority of the teachers could not define the role of an instructional coach nor did they believe they needed a coach for support. To complicate matters, the English language arts, social studies, and science content area teachers received limited training regarding the Common Core literacy standards even though they were mandated by the district to use them. Therefore, based on my observations and interviews, it appeared the majority of the teachers at Valley Middle School were struggling to adapt their instructional practices to accommodate the more rigorous Common Core State Standards and that they had very little professional development and peer support.

Purpose of Study and Research Questions

Using Vygotsky's (1978) social learning theory as the foundation, this study employed situated learning theory (Lave & Wenger, 1993), communities of practice

(Wenger, 1998), and Hall and Hord's (2001) Concerns Based Adoption Model as conceptual frameworks for the development of social capital on campus.

During the study, the following questions focused the research:

1. How does an instructional coach in three roles--coaching teams, coaching individuals, and acting as a boundary broker between networks--influence the adoption of new Common Core standards among a veteran staff at an urban middle school?
2. What barriers inhibit the adoption of new curriculum standards?
3. How does an instructional coach impact social capital during a new curriculum standards adoption?

CHAPTER 2 - LITERATURE REVIEW

In an effort to inform this study, it is necessary to review literature specifically associated with how adults learn and change within the social context of their work environment. It is also important to understand how different relationships between members of a community help or hinder learning and change processes. More specifically, this study explores how instructional coaches can influence the adoption of Common Core standards and promote social capital among a veteran staff by nurturing networks of human resources within a work environment. Additionally, the study sought to identify possible barriers associated with the adoption of new curriculum standards. Therefore it will be necessary to review the literature regarding social capital and professional learning, situated learning and communities of practice, the standards movement and the subsequent Common Core standards initiative, and specific change theory. I will also intersperse Vygotsky's (1978) social learning theory throughout the review as it applies to the study and literature.

Social Capital

Social Capital Theory posits that social structures facilitate actions that can be beneficial or harmful to social systems, depending on the social profile, in facilitating the attainment of specific ends (Coleman, 1988). To clarify, social capital is defined by the internal and external relationships inherent in individuals facilitating change or action within a social system (Leana & Pil, 2006). As one of the foundations of constructivism, a paradigm in which people make meaning of the world around them based on their relationships with each other (Gergen, 2009), Vygotsky's (1978) social development theory supports the concept that individuals can learn and change based on their

relationships among and between stakeholders. In this context, internal social capital facilitates relationships among members of a community, while external social capital encourages relationships between communities.

Internal Social Capital

Understanding that internal social capital is dependent on the nature of the relationships among systems stakeholders, Nahapiet and Ghoshal (1998) identified the three aspects of internal social capital as structural, relational, and cognitive. The structural component relates to the context of the members and the frequency in which they share information, while the relational component describes the history and trust associated with highly effective collaborative relationships among members of a community. Finally, the cognitive component of internal social capital refers to a community's shared vision and collective responsibility.

Evidence of the effectiveness of internal capital can be found in a prior action research cycle where observational data indicated that the VMS math content team was advanced in their adoption of the Common Core State Math Standards in comparison to the other content area team's adoption of the shared literacy standards. When comparing the context of both teams, it became evident that through their partnership with the community college, VMS math team had developed a shared vision for their team with defined goals and outcomes as well as collective responsibility through the team development of tiered assessments. The math team also met twice as much as the other content area teams and consistently collaborated on planning lesson units and assessments. Additionally, the success story of the VMS math team supports Coleman's (1988) argument that members of a social system must work continuously towards

developing and sustaining group obligations, expectations, norms, trustworthiness, and information in order to maintain efficiency and productivity within the system.

Obligations, Expectations, Norms, Trustworthiness, and Information

Developing a strong foundation of shared expectations and norms is essential for group efficiency. Through an economic lens, the obligations and expectations of members within a system take the form of I.O.U's or favor exchanges. Coleman (1988) believes this type of system is important because it is based on trust in which the internal network uses the available human resources (human capital) to the advantage of each individual member of the group. Additionally, established norms help members identify the social structure and needs of the group, and they can limit negative external distractions (Bryk & Schneider, 2002; Sandefur & Laumann, 1998). When these elements are in place, groups often realize a strong sense of solidarity and purpose (Sandefur & Laumann, 1998). It is possible then that one can create a professional environment by establishing routine core (cross content) team meetings in which shared norms are identified and respected and agendas are aligned to specific outcome goals set by the group.

Conversely, some critics warn that although social solidarity has many benefits within a social construct, there can be negative effects as well. Specifically, if the social control established through a strong sense of obligation and expectation becomes too stifling, it may inhibit innovation within the group or allow some members of the group to free-load off the more successful members without contributing themselves to the competency of the group (Portes & Sensenbrenner, 1993). In addition, in order to achieve personal gains, some successful members may influence the actions or directions of the

group to those ends. However, Sandfur and Laumann (1998) also found that if the social solidarity within a group balances both the egocentric and socio-centric needs of the members, the benefits of such a system can be far-reaching.

For individual members, developing trusting relationships can help them cope with stress and crisis, as well as help them obtain their individual goals. When the egocentric needs of the member are met it frees the individual to use their competencies more efficiently and effectively for the good of the group. Further, socio-centric needs are met because trusting relationships are nurtured within the community, thus enabling a division of labor that allows for greater productivity and mutual reliance (Sandefur & Laumann, 1998). In this manner, membership within a social system builds both knowledge and resource capital.

Collaboration

Educational research is flooded with studies extolling the benefits of teacher collaboration. In summarizing research on collaboration, Hall and Hord (2001) found that fundamental systemic change is more likely to occur when teachers work and learn collaboratively. As Darling-Hammond (1998) stated:

> Teachers learn best by studying, doing, and reflecting; by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see. This kind of learning cannot occur in college classrooms divorced from practice or in school classrooms divorced from knowledge about how to interpret practice. (p. 8)

However, schools that move too quickly to establish teams, learning communities, or other grouping models often develop superficial and ineffective collaborative environments (Kise, 2006).

Strong collaborative teams possess or have access to a wealth of knowledge about teaching and learning. They also have the ability to conduct discussions that honestly reflect their present practices, to identify what changes need to occur in the best interest of students, and to develop a shared culture of interdependency that uses the talents of every member within the group (Borko, Davinroy, Bliem, & Cumbo, 2000; Kise, 2006). Coaches can play a critical role in assisting collaborative efforts by focusing discussions, stepping in as the expert when necessary, helping teams establish group norms, evaluating conflict to clarify points of view, and helping guide teams through problem solving activities (Kise, 2006, p. 64).

While the development of the strong internal social capital among members of the VMS math team was made possible because of their ability to develop strong collaborative relationships and define shared expectations within the context of their team, it was also due in part to the influence of the external social capital of their mentors at the community college.

External Social Capital

Concurrent to establishing internal relationships and networks, developing relationships with stakeholders outside the immediate organization or community, external social capital is also necessary in that it encourages the flow of new information and resources needed to enhance the productivity of a team or community (Hansen, 1999). Often times these external relationships are facilitated by top managers in the business world; however, external networking is a form of boundary brokering which in education is often the role of instructional leaders on a campus (Neufeld & Roper, 2003).

Evidence of the necessity of external social capital at VMS surfaced during faculty observations throughout prior research cycles. For example, teachers struggled to adopt close reading strategies because as a faculty they did not have the expertise or knowledge locally so they were unable to identify the purpose of the strategy and to visualize the effective use of the strategy in practice. To facilitate this pedagogical shift among many of the teachers, the administrator sent a team of four teachers representing the four content areas to a district training session on close reading strategies. The team brought the information back and facilitated training sessions for their peers during staff professional development days. The external support and resources from the district helped teachers on campus move forward with close reading activities.

Information Channels – Networking.

In addressing external social capital, social networking must be explored. This system of relationships can influence the way teachers perceive change, distribute shared information and knowledge, and nurture commitment to a community or initiative (McPherson, Popielarz, & Drobnic, 1992). Some researchers believe that social networking between subgroups is critical to developing collaboration within the broader organization (Frank & Zhao, 2005; Nee & Ingram, 1998; Penuel, Frank, & Krause, 2006). As subgroups form (content area groups or core teams), members often develop strong professional and social relationships with each other (Coldren & Spillane, 2007). These relationships help members to develop stronger practices within their own environment. They also help to change attitudes towards reforms and initiatives on campus because the interactions overlap within the network of subgroups that occur throughout the broader organization (Nee & Ingram, 1998). In fact, researchers found

that while one's own subgroup can have great influence on their professional growth, it is also imperative that individuals have access to resources and competencies from outside their subgroup or school (Leana & Pil, 2006; Penuel et al., 2006). Unfortunately, observational data from previous cycles indicated a lack of networking among faculty with multiple team memberships such as the content area teams and core area teams at VMS. I did not observe information or resource sharing between any of the teams during meetings. The lack of information and resource sharing between the different teams may have been one of the factors that inhibited the faculty's adoption of the Common Core standards.

Additionally, external networking can occur when new members join a team. This idea is evident in Wenger's (1998) concept of open enrollment within a community of practice in that newcomers bring fresh information and competencies to a group. By developing relationships with existing members, new members learn to function within the expectations and obligations of the community as led by trusted and experienced mentors. In such a system, newcomers benefit from the mentorship and experience of existing members, and the mentors benefit from the external social capital and fresh perspectives of the newcomers. Those exiting the group then take their competencies and experiences to new groups. As human capital moves in and out of these types of communities of practice, an informal network begins to form through the development of new relationships thereby laying foundations for information flow (Sandefur & Laumann, 1998). Networks, therefore, that encourage information to flow freely within and among the nested groups of a social system, between core teams and content area teams for example, are potentially invaluable resources to all members of the system.

Finally, the flow of trustworthy information from within and from outside a subgroup is essential in obtaining both the egocentric and socio-centric goals of its members. Diverse information that is available throughout a broad range of contacts provides groups with the necessary resources needed to accomplish the objectives of both the subgroup and the broader organization (Granovetter, 1973). In discussing the advantages of information flow in developing social capital Penuel et al. (2009) state:

> To the extent that such ties are promoted through formal collaboration, the need to rely on formal inducements or mechanisms to foster exchange of resources and expertise may be reduced somewhat as teachers share willingly and freely with their colleagues. This is one of the chief advantages of increased social capital in an organization: the reduction of so-called exchange costs associated with bureaucratic efforts to control the flow of resources through mandates, rules, and formal policies. (p. 130)

Further, many schools are beginning to employ instructional coaches to facilitate the flow of information and resources among subgroups within a school (Neufeld & Roper, 2003). These instructional leaders often act as liaisons or boundary brokers within the school and are able to advance initiatives if they are seen and trusted as key teacher leaders within the organization (Burt, 1992; Coldren & Spillane, 2007; Wenger, 1998). Unfortunately, when coaches are seen as evaluators or "enforcers," teachers are less likely to develop trusting relationships with the coach thereby inhibiting the reform or the diffusion of initiatives (Knight, 2007; Penuel, Riel, Krause, & Frank, 2009). Personal observations from my last cycle of research support these findings; it wasn't until the teachers at VMS identified me as a peer instead of as an evaluator that they began to initiate contact with me in both a social and professional context. Once they developed trust in me, they were more inclined to ask me for resources and support.

Social Capital in Practice

Current trends in education policy and reform specifically target the development of human capital as a necessary component of school improvement (Leana, 2011). While improving individual teacher performance and competency is highly desirable, Leana's recent study found that the highest student achievement gains occurred when human capital was paired with the development of social capital, defined here as relationships among teachers. The study, which occurred between 2005 and 2007, followed a representative sample of 130 elementary math teachers across New York City. After establishing the teachers' human capital by examining several factors such as experience in the classroom and educational attainment, interview responses indicated that teachers who felt uncomfortable with the math content more often turned to their fellow teachers for help. In these instances, teachers were twice as likely to turn to peers over experts from the district and four times more likely to ask for help from one another than from an administrator. Additionally, students showed higher gains in math achievement when teachers trusted each other and conducted frequent conversations. Further, when comparing teachers' responses to survey questions regarding the frequency of math specific conversations with peers to student achievement scores in math, "if a teacher's social capital was just one standard deviation higher than the average, her student's math scores increased by 5.7 percent" (p. 33). Finally, Leana also found that if low-ability teachers had a strong social capital, they performed as well as teachers with average ability (p. 34).

The findings in this study are particularly relevant to the current study in that the individual members of the math team at VMS become a valuable resource to their core

teams because their planning and assessment development experience is already highly respected and trusted by their peers.

Finally, in an effort to address concerns regarding the difficulty of developing social capital, diversity of teaching philosophies among staff members, the individualistic nature of teachers, and the work load required to facilitate social capital on a campus, Uekawa, Aladjem, and Zhang (2006) found that the level of social capital developed on a campus depended on the context of the school reform focus. The more school reform focused on a collective change with some governance involved, the greater the opportunity for social capital to develop.

Coaching Social Capital

It is difficult to find a book on instructional coaching practices that does not include advice regarding the development of partnerships, building trusting relationships, and the importance of modeling best practices. While coaching models are useful resources for practitioners, the focus is generally on coaching individuals. This was the case at VMS as over 95% of my coaching opportunities over the past school year were individual cases. However, if a school reform targets the development of social capital, coaches must also be adept at coaching groups (Kise, 2006). Further, simply scheduling opportunities for collaboration will not be effective enough to disrupt the status quo many teachers cling to. In fact, Kise believes that deep and effective collaboration must be learned and practiced. Coaches can help teams develop common protocols for reflective discussion, set and articulate outcome goals, create norms that emphasize trust, respect, and honesty, and identify effective teaching and learning strategies.

In one case study, Penuel et al. (2009) analyzed the social network of teachers' social capital at two schools. They mapped the internal social structure of each school, identified mentors and coaches, and analyzed teacher interactions. While the study found evidence that the development of social capital facilitated teacher change, it also indicated that "the choice and roles of mentors and coaches shaped how information and expertise traveled through the schools, shaping instructional practices" (p. 133). For example, the Glade School leadership looked for external support to improve instruction, however the Crosswinds School focused on reforming their school from within. Subsequently, Crosswinds School was more successful in their school reform than Glade School.

The two schools used in this study were similar in the size and the demographics of their student population. The Glade School is a K-8 school where 90% of their 726 student population is of Hispanic or African American descent. Additionally, 40% of their population is ELL (English language learners), and 13% free or reduced lunch. The Crosswinds School is a K-6 school with 74% minority population. Two thirds of the 663 students are ELL, and 73% of the student population qualify for free or reduced lunch. Both schools had similar staffing, including instructional coaches, and reform initiatives: improving the reading achievement of low-income English language learners.

The findings regarding the impact of mentors and coaches in nurturing social capital among the staff at each school indicated that when coaches act as bridges or boundary brokers within a network of subgroups, they are much more effective than if they assume the roles of accountability monitors. For example, there was no evidence the coach at the Glade School facilitated information flow between the subgroups on campus.

Instead she was viewed by the teachers as the "enforcer" of the reform. In contrast, the coach at Crosswinds School was highly respected by the teachers and viewed as an expert in her field. Her role was to facilitate the flow of expertise and information within and between the different subgroups. There is clear evidence that school reform or diffusion of innovations can be better served when coaches actively manage and distribute information. However, coaches must also be ready to guide and mentor professional learning and collaborative efforts.

Up to this point, much of the discussion has centered on the development of internal and external social capital and human capital; however local culture and environment are integral components of teacher learning and innovation adoption as well.

Professional Learning

Many critics of the audit culture currently permeating education policy focus on the negative effects of accountability measures on student creativity and innovation (Robinson, 2012; Sahlberg, 2010; Zhao, 2012). However, Webster-Wright (2009) argues that the current environment is just as detrimental to teacher learning. Specifically, in an environment ripe with confusion and uncertainty, organizations seek to establish control through the regulation of expectations and the distribution of required knowledge. Weil (1999) states, "The tendency is to order the mess, through increasing standardization, specification of outcomes and centralized control" (p. 171).

Unfortunately, according to Webster-Wright's (2009) meta-analysis of research on professional development, much of the literature focuses on programs and regulated content rather than on learning experiences. This approach contradicts the studies showing the effectiveness of situated and social learning in context of the working

environment as well as the positive outcomes associated with mentorships and professional networks that support professional learning (Hargreaves & Fullan, 2000; Penuel et al., 2009; Sandholtz & Scribner, 2006). In short, Webster-Wright (2009) proposes that researchers reframe professional development as professional learning, "Reframing this conceptualization of PD [professional development] requires moving from a focus on 'development' to 'learning' and from an 'atomistic' perspective to a 'holistic' approach" (p. 713). If we are to shift our perspectives to focus on teacher learning instead of teacher development, then we must provide teachers with opportunities to participate in active learning through context and reflection (Garet, Porter, Desimone, Birman, & Yoon, 2001) as well as dialogue and collaboration (McGill & Brockbank, 2004).

Applied Learning: Nurturing Human Capital

Vygotsky (1978) theorized that as individuals we cannot know everything, and that learning comes when participants are exposed to a peer or teacher who is more capable in a competency than the individual. Some researchers argue that Vygotsky's theory of social development was influenced by Lenin's work (Au, 2007) specifically in regards to the concept of the more knowledgeable other. Both Lenin and Vygotsky believed that participants in a society could not develop a deep understanding of their learning to the extent they could apply it independently without the aid of an outsider (the term outsider in this case is not to be used literally – in fact, many "outsiders" come up from within the established societal groups) who possesses a higher level of a specific competency than the group or individual (Au, 2007). Further, the relationship between the teacher and student allows both participants to learn and re-learn from each other.

We see applications of Vygotsky's theories concerning the importance of the presence of a more knowledgeable other in many coaching frameworks. Modeling is a common coaching strategy that involves a reciprocal teaching and learning experience. The strategy includes collaborative pre-planning between the coach and teacher of the technique or lesson that will be modeled. The coach or expert peer models the technique and the teacher observes. After the lesson, the coach and teacher discuss the observation notes. Then the teacher conducts the lesson and the coach observes. A reflective discussion follows the activity (Knight, 2007). Other reciprocal strategies involving the concept of stimulating the learning potential of an individual using a more knowledgeable other are mentoring through inquiry based discussions, encouraging reflective practices, and developing partnerships that encourage co-teaching and planning (Jones & Vreeman, 2008; Kise, 2006; Knight, 2007; Lipton & Wellman, 2003). These strategies not only help individuals improve their practice, they also help develop or strengthen collaborative skills.

Situated Learning

In line with Vygotsky's theory of social development, Lave and Wenger (1993) agree that "learning is an integral and inseparable aspect of social practice" (p. 31), and that situated learning involves the concept of "legitimate peripheral participation." In other words, if participants in a community of practice are to gain and master knowledge and skills, the community requires an open enrollment of newcomers in order to develop relationships that change and evolve the identities, artifacts, and practice of the existing core. Further, situated learning is very specific to the culture of the locale. In context, learning occurs through a social culture that is defined by the specific environment;

therefore learning is specific to the situation, and taken out of the context must be renegotiated to fit the meaning of the new context. This is sometimes referred to as the development of schema in which learners are exposed to situations, people, and even cultures that help them build their understanding of the world (Pratt, 1998). Within this concept, learning is a change in understanding that is further developed, tested, or revised according to the context of its application. Finally, the term "peripheral participation" indicates a growing involvement of new participants in understanding the community towards membership within the community. It is through this continuous development of relationships between newcomers and veterans that all knowledge and skills evolve into competencies (Lave & Wenger, 1993).

Extending this concept further, Brown, Collins, and Duguid (1989) argue that participating in authentic activities specific to the culture is central to learning. According to their work, learners required to attend instruction outside their legitimate culture (or in situations where they do not perceive a purpose or authentic application of the learning to their culture) often struggle with the learning in that their everyday needs can supersede the symbolic acquisition of information found within the more formal academic settings. Brown et al. (1989) explain that learning occurs when participants can identify problems in context, and because of their positionality, artifacts, and on-hand competencies within the existing community, they are able to work through the problem and increase the competencies of the group through new learning. In essence, "knowing and doing were interlocked and inseparable" (p. 35).

While social development and situated learning theory are gaining credibility in the education environment, cognitive theory critics argue that many of the frameworks

developed around social learning constructs fail to adequately improve educational practice (Kirshner & Whitson, 1998). This is due in part by the language adopted by some of the theorists that all learning occurs in social settings and in part by the ambiguous nature of the theory as it applies to education. As social learning theory in the context of education reform emerges, some approaches such as cognitive apprenticeships inter-mix cognitive and situative approaches (Collins, Brown, & Newman, 1989). In other words, learning can occur independently as well as socially. Therefore, in this study I approached both the development of individual schema and situative learning through communities of practice to facilitate teachers' adoption of the Common Core State Standards.

Communities of Practice

In studying the changing identities and relationships of a new instructional coach and the participants of a well-established community, a conceptual perspective is needed: specifically, a social theory of learning designed around the concepts of learning, meaning, and identity within a community of practice (Wenger, 1998). In essence, this conceptual framework, "integrate(s) the components necessary to characterize social participation as a process of learning and of knowing" (p. 4).

The framework includes integrated components that apply to familiar experiences (Wenger, 1998). The components include: meaning – how communities learn through collective experiences; practice – how communities learn through "sustained mutual engagement in action" (p. 5); community—how we learn through competencies within the community; and identity—how we learn and change as a result of belonging to the community. Furthermore, member participation is essential to developing strong

communities of practice. At the individual level, learning becomes a matter of the person's contributions to the community and their subsequent engagement in the practices of the community. At the community level, learning occurs through the refinement of practice in which teams benefit from shared knowledge and experiences through reification--a manifestation of shared beliefs, practices, and artifacts. It is the shared identity of the group that ensures the sustainability of the community for future members.

Additionally, it is the participation or opportunities within a community that provide authentic interactions and experiences which allow for learning. Wenger (1998) states, "instruction does not cause learning; it creates a context in which learning takes place…" (p. 266). In creating communities of practice among teachers and staff on a campus, the learning takes place through the interactions of teachers reflecting on their practice and discussing strategies with individuals based on their specific competencies.

While many social theories focus on social structure and or situated experiences, communities of practice seek to connect social practice and identity, "we interact with each other and with the world and we tune our relations with each other and with the world accordingly. In other words, we learn" (Wenger, 1998, p. 45). This is a particularly important concept when understanding the roles of boundary brokers in establishing and maintaining useful networks among satellite communities of practice.

If we agree that instructional coaches must be proficient in coaching teams as well as individuals (Kise, 2006), it is easy to also view coaches as boundary brokers between core teams, content area teams, administrative teams, and district special teams (i.e. curriculum specialists). Wenger (1998) defines brokering as the "use of multi-

membership to transfer some element of one practice into another" (p. 109). Instructional coaches acting as brokers have the potential to create networks between the communities in order to facilitate the flow of information. Wenger (1998) states,

> The job of brokering is complex. It involves processes of translation, coordination, and alignment between perspectives. It requires enough legitimacy to influence the development of a practice, mobilize attention, and address conflicting interests. It also requires the ability to link practices by facilitating transactions between them, and to cause learning by introducing into a practice elements of another. (p. 109)

It is clear that boundary brokers can be beneficial in establishing important networks in which communities of practice can grow through shared reification, or boundary objects – artifacts and beliefs that are shared between communities of practice to coordinate progress towards established outcomes – and linked practices. Finally, Wenger (1998) warns that brokers must be careful to avoid being pulled into full membership within a community of practice or being rejected as an intruder. Instructional coaches acting as boundary brokers therefore, walk a fine line between membership and non-membership. It is important for instructional coaches to be legitimate enough that members respect their ideas and input, while also having enough distance from the group to be able to offer new or different perspectives. Because the previous data showed a lack of internal and external networking, I explored how an instructional coach acting as a boundary broker could influence the flow of information through human networks to help facilitate a curriculum adoption among teachers. It was necessary to differentiate the resources and support for each teacher based on their current needs relevant to their personal progress towards the adoption.

The Concerns-Based Adoption Model

As is well documented, the complex nature of change makes the implementation of new initiatives a daunting and formidable endeavor. Fullan (2001) argues there is no magic check list one can follow to ensure successful change initiatives. Leadership styles, purposeful and focused initiatives limited to specific needs, communication, and shared visions of the implementation process are all important components of change. Further, Bridges (n.d.) reminds us that change is personal and that successful implementation of change initiatives is more likely to occur when leaders are able to manage the psychological processes, or transitions, of the people expected to change. Understanding the importance of transitions, Hall and Hord (2001) developed the Concerns-Based Adoption Model (CBAM) that employs the following principles: change is best facilitated through team efforts; change processes are influenced by the local school culture; and individuals must change first if the organization is to change. CBAM is designed to help monitor the process of change to inform professional support throughout the initiative. While the model includes three forms of examination—stages of concern, innovation configuration, and levels of use—the primary forms of examination used for this study were monitoring the stages of concern and using innovation configuration maps to direct individual coaching expectations and group coaching expectations.

Application

In summary, the importance of developing trusting relationships and clear expectations and identifying shared processes among team members in developing strong internal social capital is evident in the literature concerning social capital (Leana & Pil, 2006) and communities of practice (Wenger, 1998). However, as Kise (2006) indicated,

merely scheduling collaboration time will not ensure teams function efficiently enough to produce desired outcomes. Data from the prior research cycles indicate core teams may benefit from team coaching opportunities facilitated by the instructional coach that will help them identify their purpose, vision, and goals and assist them in developing shared processes.

Additionally, developing and nurturing both internal and external networks of expertise and shared resources help to build social capital throughout a social learning system (Coldren & Spillane, 2007; McPherson et al., 1992). Instructional coaches can work to help develop learning networks by adopting the role of boundary broker (Wenger, 1998). As stated earlier, the faculty at VMS had not established strong internal or external networks. In order to support networks, I coached teams to share information and expertise among themselves and continued developing my role as a boundary broker to ensure our teachers were receiving new and relevant external information and resources.

Further, instructional leaders must work to identify and support human capital on campuses in order to develop sustaining social capital that allows for effective school transformation (Sandefur & Laumann, 1998). Evidence, teacher and coach reflections and classroom observations, from prior individual coaching sessions indicated teachers at VMS benefitted from individual coaching opportunities. Additional data also indicated that teachers were struggling to shift their pedagogical practices to meet the expectations and requirements of teaching the new Common Core State Standards. Therefore continued to develop reciprocal relationships with individual teachers that would expose

them to the authentic application of the strategy they were working on within their local context (Jones & Vreeman, 2008; Kise, 2006; Knight, 2007).

Finally, by monitoring personal transitions, instructional coaches can identify the different stages of concern during a system mandated adoption to inform the professional learning needs of the staff (Hall & Hord, 2001). Knowing the stages of concern for the individual teachers helped me differentiate my coaching approach.

The findings in this literature review have directly impacted the development of the following study to determine how a three pronged coaching approach—coaching teams to operate within a shared framework of norms, expectations, and goals; capitalizing on existing human networks to facilitate the flow of information; and coaching individuals within a reciprocal professional relationship (learning from and teaching each other in partnership)—will influence teachers' ability to adopt a new set of curriculum standards.

CHAPTER 3 - METHODS

This chapter addresses the methods, setting, participants, action plan, and data collection and analysis plan for the study. Traditionally, the emphasis of instructional coaching has been placed on mentoring individuals (Knight, 2007). However, with the popularity of developing and supporting teachers in professional learning communities or communities of practice, mentoring and coaching teams and collaborative processes become an essential ingredient to achieving successful team outcomes (Kise, 2006). The purpose of this study was to evaluate the influence of a three pronged approach to instructional coaching on teachers' adoption of new curriculum standards, to identify possible barriers that would inhibit the adoption of new curriculum standards, and to explore the role of an instructional coach as an architect of social capital at Valley Middle School.

The instructional coach three pronged approach model is illustrated in Figure 1. First, as shown on the right side of Figure 1, during meetings I mentored one core team to operate within agreed upon norms, reflect on present practices, create both team and instructional artifacts collaboratively, and use data discussions to identify and monitor needed instructional changes and goals. Second, as shown in the middle of Figure 1, I acted as a boundary broker to establish networks among teams and individuals. This approach entailed facilitating the flow of information and resources between communities of practice at the local campus level, district level, and state level, as well as tapping into individual professional networks that offered additional resources. During the third approach, as shown on the left side of Figure 1, I supported human capital by encouraging the development of reciprocal relationships with individuals through inquiry

based discussions, reflective conversations, and co-teaching and planning sessions. Finally, I gathered data (see data collection plan) to inform and guide my coaching strategies.

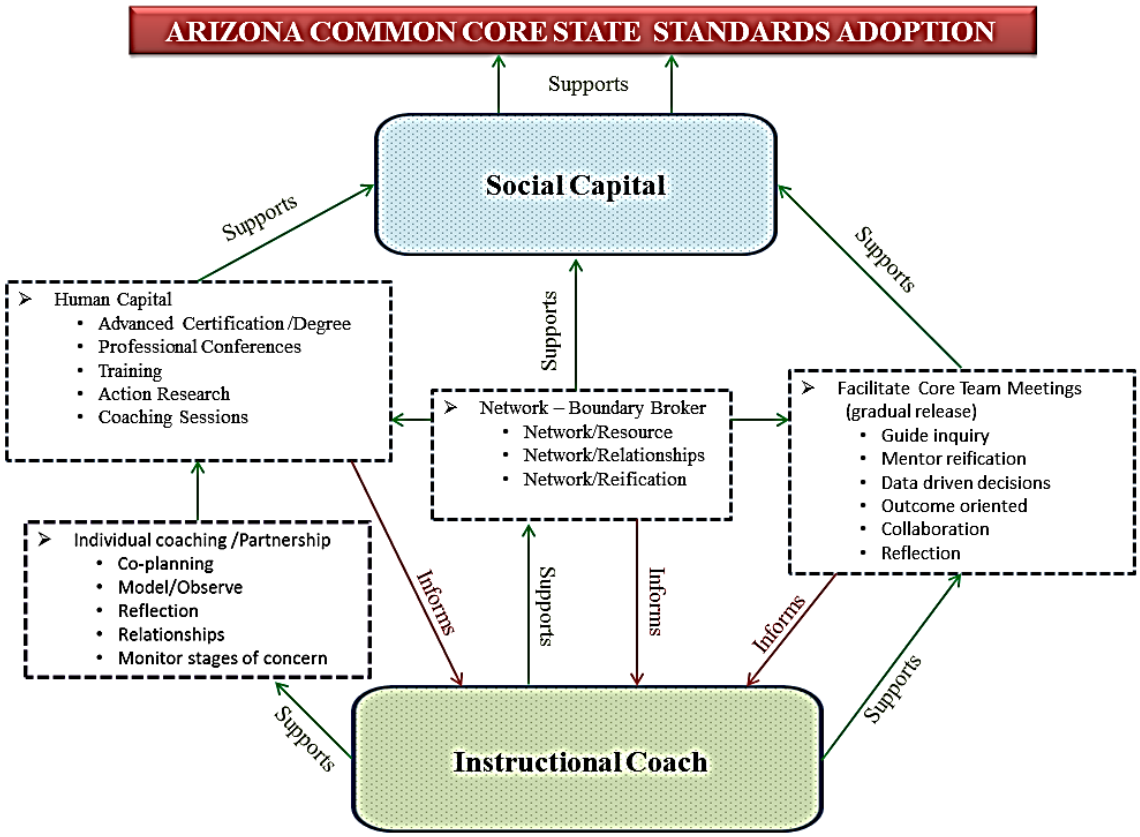


Figure 1. Three Pronged Coaching Approach

Throughout this study, I will address the following research questions:

1. How does the instructional coach in three roles—coaching teams, coaching individuals, and acting as a boundary broker between networks—influence the

adoption of Common Core standards among a veteran staff at an urban middle school?

2. What barriers inhibit the adoption of new curriculum standards?
3. How does an instructional coach impact social capital during a new curriculum standards adoption?

Methodology

Because this study has a localized context and is inherently cyclical in nature, employing observation, reflection, and action among community members to improve the process of implementing new Common Core standards, I framed it within a participatory action research model. The participatory frame involved all interested members of a community working collaboratively to investigate an issue using a cyclical systematic approach of design, evaluation, and revision. All data collected from team observations and individual coaching sessions were shared with members of the team to improve team meeting processes and to increase the use of internal networking (Herr & Anderson, 2005; Stringer, 2007). Additionally, all participants helped develop and improve team artifacts and worked individually to improve their practice. As a member of the community, I was both a researcher and a participant.

Furthermore, this study sought to identify thematic relationships within qualitative data to investigate the influence of a three pronged instructional coaching approach on teachers' adoption of new curriculum standards. A quantitative measure was used to complement some of the qualitative themes. Plano Clark and Creswell (2010) define this approach as a mixed methods research design. For nearly a century researchers have experimented with combining quantitative and qualitative data in order to gain a better

understanding of a phenomenon. Currently, because of the popularity of this rigorous data collection strategy, many scholars identify the mixed methods design as a third approach to conducting research alongside a purely qualitative or quantitative methods design.

In this study, I used a mixed methods design with a concurrent data collection approach in which I collected multiple data simultaneously. For example, I collected individual teacher reflections and wrote field notes during the same time I recorded and coded team meeting video observations. Next, because of the small sample size and the experiential context of the study, the majority of data collection was qualitative in nature. Concurrently, the secondary quantitative dataset measured changes within participants' Stages of Concern regarding the adoptions of new curriculum standards. Because the quantitative dataset augmented the interpretation of the qualitative data, I felt the use of a concurrent embedded mixed methods design (Plano Clark & Creswell, 2010; Green, 2007) was appropriate for the study.

In summary, the primary qualitative data was used to inform team and individual decisions throughout the study, to evaluate the influence of the three pronged coaching model on teachers' adoption of new curriculum standards, to identify and address possible barriers to the adoption of curriculum standards, and to explore the impact of an instructional coach on social capital during the change initiative. The secondary quantitative data was used to augment the qualitative findings.

While the concurrent embedded mixed research design was conducive to gaining a broad and rich understanding of the data from this study, it also had limitations that were considered. First, the data had to be transformed so that it could be used for analysis. To address this issue, I asked all members/participants to check my analysis of

themes in both the individual and team environments through reflective conversations. Next, I used a qualitative coding protocol that allowed for analysis of pre-determined codes as well as emergent codes. I asked my co-coach to peer examine the codes to help establish inter-coder reliability. The quantitative data were analyzed using the validated scoring device associated with the Stages of Concern Questionnaire. I triangulated the qualitative data so that all findings where substantiated by at least two separate data sources (Creswell, 2009; Green, 2007). Finally, the qualitative and quantitative data in this study have a complementary relationship which will be explained in Chapter 5.

Setting

Valley Middle School (VMS) has been serving seventh and eighth grade students and families within its boundary for over 30 years. It is one of three middle schools within a large metropolitan school district. During the 2010-2011 school year, VMS qualified for a Title 1 label due to the low socio-economic status of the majority of the approximately 650 students served by the school.

Additionally, VMS student achievement data on state assessments indicated students were plateauing in reading with a 4% gain over three years and in math with a 5% gain over three years. Furthermore, during the past two years the faculty have been exposed to three major change initiatives: the mandated implementation of a systems approach to continuous improvement based on the Baldrige criteria (http://www.nist.gov/baldrige), the mandated adoption of Common Core State Standards (Common Core State Standards Initiative, 2012), and a new campus administration. Because of the prevalence of change within the local context, the new administrative

team consisting of a principal and assistant principal hired an instructional coach to support teachers.

Participants

Teachers

The five teacher participants in this study are highly qualified eighth grade teachers representing four core content areas and one exploratory class: math, social studies, English language arts, science, and technology. The team includes two females of Anglo-European decent in their mid to late 50's and three males of Anglo-European descent ages 24, 35, and 43 years old.

While using a convenience or voluntary sampling selection may indicate a bias flaw within the sampling, the demographics of the core teams helped defuse the selection bias. For example, there were specific criteria that had to be met in order to have a representative sample. Of the five core teams, one was not a true core team because it was made up of four physical education teachers. Of the four remaining teams, one team consisted of the four content area team leaders. Therefore, the three remaining teams were the only teams that met the criteria for the study because they had similar teacher experience levels, content area representations, and age and gender representation.

Furthermore, because of the localized nature of the study, a nonprobability sampling was sufficient to describe the differences within and among the relationships of the group (Plano Clark & Creswell, 2010). Finally, as the findings are not meant to be generalized to a broader population, the volunteer sampling allowed me to set the study within an environment most conducive to exploring the impact of a new coaching approach on the local context. In this manner, the study can be generalized to the local

context, meaning the other core teams on campus. In addition, qualitative researchers often generalize to theory, in which case I may be able to generalize to my theoretical frameworks if the theories clarify my findings (Yin, 1984).

The five team members participated in six 50-minute video recorded core team meetings held on the second and fourth Wednesday of September (11th and 25th), October (9th and 23rd), and November (13th and 2seventh), 2013. Further, members participated in a at least six individual coaching session as scheduled by both the coach and the teacher, completed a pre and post study Stages of Concern questionnaire (at the beginning of September, 2013 and at the end of November 2013), and participated in an individual exit interview at the end of the study in November 2013.

Researcher

Prior to my role as an instructional coach, I was a seventh grade English language arts teacher for seven years. Concurrently, I provided training in technology, systems, and English language arts at the district level. My leadership experience includes chairperson of the campus leadership team, content area team leader, and Title I coordinator. My knowledge and experience with teaming, adult learning, and middle school culture served to support my role as instructional coach (practitioner) and researcher.

As the instructional coach, my role on campus is to assist teachers in adopting new curriculum standards, evaluating student data, and supporting a classroom system of continuous improvement. Of the 32 certified staff members I work with, more than half are mature veteran teachers with over 15 years of teaching experience. The established culture on campus somewhat impedes my process of developing strong trusting relationships with individual teachers. Because teachers are required to adopt the

standards and prepare students for a highly rigorous curriculum and assessment cycle within the next two years, I decided to facilitate core team meetings in an effort to build social capital to support teachers through the adoption of new initiatives.

Coaching Team

Sam, the math interventionist/coach, and I work in partnership to facilitate team meetings and offer coaching opportunities to the faculty; therefore he is an integral member of the team. He is a 25-year veteran math teacher who has worked at VMS for 20 years. He has led the math team in adopting the math shifts and practices associated with the new Common Core State Standards, and he is viewed respectfully as a leader and contributor among members associated with the mentoring partnership with the local community college. He co-facilitated the core meetings, attended the math content area team meetings, maintained entries in a shared coaching journal, and participated in all data collection and final coding activities. Finally, he cross-checked my qualitative codes to increase the credibility of our coding (Creswell, 2009).

Administrative Team

The administrative team, one principal and one assistant principal, play a minor role in this study due to the focus on instructional coaching. However, the coaches maintained open communication with the administrators and worked to facilitate a common and shared understanding of academic goals and strategies that aligned to the campus improvement plan. Both instructional coaches met with the administrative team after each core team meeting (a total of six meetings) to debrief and reflect on the outcomes. The administrator agreed to promote and support our professional development model.

Innovation

Serving as an instructional coach has allowed me to act as a change agent on campus. In prior cycles, I was able to create demand by developing a sense of urgency to work aggressively towards adopting the new Common Core standards, establish a consistent data set for each core team, distribute and maintain the flow of professional literature and videos, and build trusting and transparent relationships. During the three months of the study (September to November, 2013), I implemented the three pronged approach to instructional coaching defined below.

I used the coaching innovation configuration map I developed based on Knight's (2007) instructional coaching model to guide my practice and reflection (see Appendix B).

Coaching Core Teams

During the first prong of the approach, both Sam and I coached members during team meetings as needed to help the team create shared norms, maintain and communicate artifacts such as agendas, minutes, and shared products, encouraged and modeled the use of data to drive team discussions and decisions, and assisted teams in setting goals and monitoring progress towards goals. The sample team participated in two team meetings per month for a total of six team meetings. The 50-minute meetings were scheduled during the team prep period on a bi-weekly basis.

Additionally, at the first core team meeting, team participants discussed a vignette based on a team meeting scenario and collaboratively created an innovation configuration map to identify what they believed were the components of an efficient and productive team. During the study, the team used the innovation configuration map to help guide

their shared vision and purpose and to assist them in reflection as they worked to evaluate their compliance with and the effectiveness of established expectations (Hall & Hord, 2001).

Supporting Human Capital

The second prong focused on the individual. I maintained a traditional coaching framework that relied on the development of individual relationships based on trust, mutual respect, and common outcomes.

The teachers in the sample team participated in at least six coaching sessions throughout the study. The time allotted for each session varied depending upon the needs and availability of the teachers. The focus of each coaching session was aligned with the campus Common Core adoption expectations; however, the core team members also chose an aspect of the adoption they wanted to work on individually. For example, one member wanted to improve her ability to implement a reading for meaning strategy, while another member worked on designing tiered assessments using depth of knowledge. The first coaching session typically involved lesson planning or brainstorming activities, then the coach either modeled, observed, or both between the first and second session. During subsequent sessions the coach and teacher debriefed and reflected upon the activity.

Boundary Broker

The final approach of the three pronged coaching model was the role of instructional coaches as boundary brokers (Neufeld & Roper, 2003; Wenger, 1998). The responsibilities of the boundary broker included connecting individual teachers and their professional networks to teams and teachers who could benefit from the resources,

expertise, and/or knowledge of others. Network resources were shared with individual teachers and with teams during meetings and coaching opportunities. Sam and I identified existing networks by attending all core and content area team meetings, by journaling our thoughts and reflections of possible networks identified in our individual sessions, and by tracking professional development and conference opportunities. We kept a running record of all internal and external networks we connected to in a coaching journal.

Action Plan

During the 12 week study, the math instructional coach and I divided our time between team meetings and individual coaching sessions. Additionally, we attended content area meetings and researched applicable conferences for professional development. The following implementation plan articulates the responsibilities of the coaches during the study to ensure all three components of the coaching mode—human capital, social capital, and networking—were supported. Figure 2 provides a preview of the first week of the innovation implementation calendar (See Appendix C for the entire implementation schedule).

Implementation Plan				
Week One				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Meet individually with the five teachers from the core team sample to review one-on-one coaching innovation configuration map and to add further expectations to the map. -Participant will complete the Stages of Concern Questionnaire (SoC). -Establish a calendar for future coaching sessions.		-First core team meeting. -Read and discuss vignette. -Create team innovation configuration map emphasizing a continuous improvement cycle (Plan, do, study, act) and elements of effective teams identified in the vignette. -Plus/Delta (What worked, what could be improved).	-Complete individual meetings with teachers from the core team sample (See Monday/Tuesday).	

Figure 2. Implementation plan.

Data Collection Plan

Qualitative Methods

Composite vignette and team innovation configuration map. Team participants developed an innovation configuration (IC) map during their first four meetings to establish a shared purpose. The process was video recorded. IC maps are useful in that they provide a description of the various components of a new program along a continuum of implementation often identified as levels. The levels describe the extent of the implementation of the individual components; however it is important to view the components as integral pieces of the whole. IC maps also clarify expectations and often serve as reflective, observational, evaluative, or diagnostic tools for individuals and teams (Hall & Hord, 2001; Hirsh, 2006)

Prior to creating the innovation configuration map, members of the core team read a vignette (see Appendix D) of a team meeting to help promote a discussion regarding components of effective teaming, i.e. communication, collaboration and participation, shared vision. Vignettes, or short scenarios, are often successfully used in action research as a qualitative method to gather participant response information (Barter & Renold, 1999; Wilson & While, 1998). Because authentic and realistic scenarios are important to establish the trustworthiness of the vignette, the scenario is a composite of several different meetings I have attended in which I was able to observe components of effective team dynamics (Spalding & Phillips, 2007). I wrote the vignette to draw attention to team roles, shared vision and norms, collaboration, negotiation, and reflection. The scenario has been reviewed and revised based on feedback from four different instructional coaches and two administrators throughout two cycles of research.

After reading the vignette and discussing the scenario, the team chose four components of effective teaming and listed them within the IC map matrix. Once the components were identified, the team described what each component looked like at different levels of effectiveness. The completed IC map was used to facilitate team reflections at the end of each meeting.

Team meeting video observations. The team met twice a month to engage in progress monitoring of agreed upon team goals and outcomes. Each 50-minute meeting was videotaped for a total of six video recorded team meeting observations. The following protocol was used to direct the team observations.

Video recorded observation protocol. Team meetings were recorded to help the coaches identify team dynamics, team and individual response to team coaching, impact

of coaching on team dynamics, and networking. I used video recordings because both coaches participated in the meetings. The following protocol assisted the coaches in capturing the observation data for analysis.

1. Observation
    a. Capture an audio version of the meeting as a back-up to the video recording.
    b. Inform participants when recording begins.
    c. Record the entire 45-minute meeting and end the recording at the conclusion of the meeting.
2. Post-Observation: Expectations
    a. Upload the video into qualitative analysis software for video and audio data.
    b. Begin open coding within two days of the meeting to maintain constant comparative methods (Glaser, 1965).
3. Outcomes: Results
    a. The results were used to triangulate interviews, journal, and questionnaire data in order to enhance the validity of the findings (Green, 2007)

Coaching journal. After each interaction with members of the sample group, the coaches recorded a summary and reflection of the encounter. The journal entries are a chronological record of the coaching sessions and include topics related to the adoption of the Common Core standards, student reaction and engagement, levels of depth of knowledge tasks, debriefing notes, progress monitoring of established goals, and next

steps. The entries were coded and analyzed to triangulate and support the additional qualitative data.

Semi-structured debriefing and teacher reflection. After each cycle of individual coaching sessions (two meetings), the core team member summarized and reflected on their experience. The coach recorded the brief reflection and transcribed the audio recording for coding purposes.

Personal interviews. I used the interview protocol found in Appendix E to ensure an efficient and comfortable experience for the interviewee. The interview protocol provided me with direction regarding interview procedures, post-interview expectations, and outcomes.

Interview questions. Figure 3 contains examples of the questions that were used during the exit interview (see Appendix E for all interview questions). Questions 2 through 5 have been piloted in two interviews during a prior action research cycle. In both interviews, the participants understood the context of the questions and their replies were aligned to the purpose of the questions. Questions 1 and 6 are specific to this study and were not piloted. However, the two questions have been peer reviewed by two administrators and one instructional coach, and they all agreed that the questions were clear and broad enough to solicit extensive interviewee responses.

1. Please tell me about your experience with the core team meetings over the past 12 weeks.
    a. What are your thoughts about the team innovation configuration map?
    b. How has participating in team meetings impacted your adoption of Common Core State Standards? Please explain.
    c. How do you rate the functionality of your team? Please explain.

2. Please tell me about your experience with the individual coaching sessions you participated in over the past 12 weeks.
    a. Describe your professional relationship with your instructional coach.
    b. How has your attitude towards the adoption of the curriculum standards changed? Can you give me a specific example?
    c. How has working with an instructional coach impacted your adoption of the Common Core State Standards?

Figure 3. Sample interview questions.

Quantitative Methods

Stages of Concern Questionnaire. Identifying the professional learning needs of teachers is a critical component of the change process (Loucks-Horsley, 1996). Continuous monitoring of teacher concerns provides useful information that helps facilitate professional learning and sustainable change over time. There are seven stages of concern that help trainers identify adopter attitudes. Concern is defined as the "composite representation of the feelings, preoccupation, thought and consideration given to a particular issue or task" (Hall & Hord, 2001, p. 61). Table 2 illustrates the different stages.

Table 2

Stages of Concern

Stage	Concern
6 - Refocusing	Participant brings new ideas that would improve the initiative or in some cases replace the initiative
5 - Collaboration	Participant is interested in cooperating and networking with others
4 - Consequence	Participant shifts their attention and concern to how the initiative is impacting students
3 - Management	Participant is worried about the demands of managing the initiative
2 - Personal	Participant is uncertain of the personal implications of the initiative
1 - Informational	Participant is interested in gaining more information about the initiative
0 - Awareness	Participant has minimal involvement or concern with the initiative

(Hall & Hord, 2001)

I used the Stages of Concern Questionnaire during the first and last week of the study to measure the stages of concern of the members of the core team. The Stages of Concern Questionnaire contains 35 items relating to the seven stages using a seven point Likert scale. The questionnaire was initially tested in a test re-test study in which stage score correlations ranged from .65 to .86 with more than half of the correlations being above .80. The internal consistency (alpha-coefficients) estimates ranged from .64 to .83 and six out of the seven coefficients scored above .70. Further validity studies were conducted resulting in an increased confidence in the measurements (Hall, 1977).

The questions were modified by substituting the word "innovation" with "the adoption of Common Core Standards" to reduce any confusion teachers may have when completing the questionnaire. Twelve middle school teachers analyzed the wording in the questionnaire for clarity regarding the definition of the innovation as Common Core State Standards. They found that while some questions did not specifically apply to the adoption of a new curriculum, replacing the word "innovation" with the more specific phrase regarding Common Core made them feel the questionnaire was more relevant to their situation and continually reminded them that the questions were referring to the specific adoption of Common Core.

Data Analysis Plan

Qualitative Data Analysis

The five qualitative data sources include the following: vignette discussion and development of the team IC map, video observations of the team meetings, teacher reflections from individual coaching sessions, coaching journals, and personal interviews. Codes were identified through both deductive *a priori* or pre-determined categories (Miles & Huberman, 1994) and a grounded theory approach (Glaser & Strauss, 1967) using inductive *in-vivo* codes in which concepts were identified through the participants words instead of the analysts (Corbin & Strauss, 2008).

Based on the literature review and prior research cycles I coded evidence of coaching influence throughout all qualitative data. I predetermined the following deductive or *a priori* codes:

- Coaching Influence
    - Team: Shared Vision; Collaboration; Collective Responsibility; Reflection; Sustainable Artifacts
    - Individual: Partnership/Collaboration; Modeling; Observing; Support
    - Networking: External Networking; Transfer; External Professional Development

It is through the collection and analysis of qualitative data that I was able to develop theories to explain the themes and patterns embedded in the team members' responses. I used the pre-determined codes and the following steps of a grounded theory analysis approach after each collection of data:

1. Organize data with triangulation in mind (Creswell, 1998)
    a. Catalogue videotapes including date, content summary, and participants
    b. Combine coaches notes in chronological order
    c. Transcribe teacher reflections and personal interviews
2. Apply open coding (Corbin & Strauss, 1990) to closely examine the data for similarities in themes or categories (Patten, 2012).
    a. Upload video and transcripts to HyperRESEARCH Qualitative Analysis Tool V.3.5.2. (Researchware, 2012).
    b. View the video and tag portions that identify themes or categories, either established or emerging.
    c. Read through the coaches' notes and transcriptions and code line by line for themes or categories.

3. Apply axial coding (Corbin & Strauss, 1990) to identify relationships between the themes or categories found during the open coding process. Axial coding links categories to sub categories (Patten, 2012).
    a. Review video footage to identify relationships between tagged themes or categories.
    b. Reread notes and transcriptions to identify relationships between the identified categories or themes.
4. Code the data independently. Share evidence of deductive codes with co-coach to check for clarity and alignment. Share inductive codes with co-coach for discussion and consensus. Once a unique code is identified, explain how the code was developed and decide together whether to keep it as a category, theme, or sub-category code. If a consensus cannot be met, employ an outside expert to code the data and confirm or refute the use of the code. Consistently cross check codes to establish inter-coder agreement (Patten, 2012).
5. Use Constant Comparative Method (Glaser, 1965)
    a. When coding for an established category, compare new codes with existing codes within the category. Be sure to record memos of thinking and questioning.
    b. Connect categories by comparing incidents with properties of the category. Relationships between categories may emerge when the coders identify the integration of properties among the different categories. Begin developing theory based on these relationships.

c. Reduce irrelevant categories to narrow the focus and encourage saturation of relevant categories to continue developing theory.

6. Continue to review data for confirming and disconfirming evidence of any assertions made based on inductive coding schemes in order to establish evidentiary warrants (Erickson, 1986).

Quantitative Data Analysis

Stages of Concern Scoring Device. The Stages of Concern Questionnaire was hand scored using the Quick Scoring Device developed for the instrument. The teacher responses were used to plot individual. To create the profiles for each member, their answers to the questions on the questionnaire were transferred to the scoring device and entered into seven scales. Next, each scale was totaled and transformed into percentile scores which were then plotted on a graph that identified the individual's Stages of Concern profile (Hall & Hord, 2011). I created a line graph to show the current stages of concern for each team member in September, 2013 prior to the study. I then created another bar graph of the November, 2013 Stages of Concern Questionnaire results next to the September results. Using a line graph with both pre and post results for each member allowed me to compare whether members moved through any of the stages of concern during the study. Because of the complexity of the questionnaire and its scoring device, I thoroughly studied the suggested technical manual for use in measuring Stages of Concern as suggested by the authors (George, Hall, & Stiegelbauer, 2006).

In summary, in an effort to explore the influence of an instructional coach on teachers' adoption of new curriculum standards, this participatory action research study using a concurrent embedded mixed methods approach allowed me to develop a holistic

view of the impact of the intervention on the participants. Because of the experiential nature of the study, the design was heavily weighted in qualitative data. The established protocols helped to ensure consistency in data collection and analysis procedures, as well as alignment to the research questions.

CHAPTER 4 - DATA ANALYSIS AND FINDINGS

The previous chapter described the data sources and collection processes for each data source. This chapter will describe the data analysis procedures used to examine the impact of an instructional coach on the adoption of new curriculum standards and social capital and the findings of the analysis. Chapter 5 will discuss a combination of the data using a method of complementarity to address and answer my three research questions.

A concurrent embedded mixed methods approach in which the quantitative data is nested within the heavily weighted qualitative data is used in this study. The qualitative and quantitative data in this study have a complementary relationship. The first section addresses the analysis and findings of the qualitative data: the development of the team innovation configuration map and team generated protocols, team meeting video observations, coaching journals, teacher reflections, and personal exit interviews. The second section addresses the analysis and findings of the quantitative data: The Stages of Concern Questionnaire and classroom walk-through observations.

Qualitative Data

The following sections identify the demographics of the eighth grade core team participants from Valley Middle School, the outcome of the team innovation configuration map, the process used for analyzing the multiple qualitative data sources, and the themes derived from both the a priori or pre-determined codes (Miles & Huberman, 1994) and inductive in-vivo codes, "Concepts using the actual words of research participants rather than being named by the analyst" (Corbin & Strauss, 2008, p.65).

Core Team Demographics

The following brief descriptions of each teacher and their roles on campus will help provide a foundation for the subsequent discussions.

- Cindy is a 29 year veteran teacher. She has taught English language arts for 13 years and has been a teacher at VMS for eight years. She is also a member of the English language arts common core training team. The team attends district common core literacy training for trainers each quarter. They are responsible for bringing the training back to their campus to provide training for all teachers during monthly half day professional development days.
- Debbie is a 14 year veteran teacher. She has taught science for 13 years and has been a member of the VMS teaching community for 10 years.
- Rich is a first year teacher. He teaches social studies and the social studies department chair is his mentor. He is also an assistant coach for the campus wrestling team.
- Darrin is a 14 year veteran teacher. He has been teaching technology exploration for four years and has been a teacher at VMS for 14 years. He also chairs the campus technology advisory committee.
- Nick is an eight year veteran teacher. He has taught math for two years and has been a teacher at VMS for two years. He is a member of a math professional learning community (PLC) established in partnership with a local community college. The PLC is involved in a study to monitor the adoption of new math practices associated with the common core math standards.

- Sam is the campus math coach. He is a veteran math teacher of over 25 years and has worked on the campus more than 20 years. He leads the math professional learning community and is a district trainer for participants involved in a professional development math grant. His role in this study is as a math instructional coach.
- My role is the instructional coach. I have taught English language arts at the middle school level for seven years, and am currently in my second year as an instructional coach.

Composite Vignette and Team Innovation Configuration Map

During the first core meeting, participants read the vignette (see Appendix D) of a highly functioning team. I, as the instructional coach, facilitated the activity by asking the participants to independently identify the components of teaming they felt would help their team function efficiently. Each team member read the vignette silently and highlighted behaviors they felt were important to discuss with the group. After the group discussion, the team agreed to focus on four team components: *Purposeful and Focused, Share Ideas/Collaboration, Use of Data to Inform Decisions,* and *Professionalism*.

During the second core meeting, participants were asked to individually articulate what the components *Purposeful and Focused* and *Share Ideas/Collaboration* looked like to them in a team setting. We used a continuum or Likert scale in which level one defined the absence of the component and level four defined a highly effective integration of the component during team meetings. After each member completed their definition of the component throughout the various levels, the team used the individual input and collaboratively identified the definitions of the two components within each level. We

used the same process during the third core meeting to complete the final two components: *Use of Data to Inform Decisions* and *Professionalism* (see Figure 4).

	Level 1 Missing	Level 2 Developing	Level 3 Functioning	Level 4 Excelling
Purposeful & Focused	There is no agenda. Team members often participate in side conversations that are off topic. There are no goals.	The agenda does not meet the needs of the team. There are some side conversations. Team members are not prepared. There are goals but they are not monitored for progress.	The agenda is organized and aligned to goals and team objectives but it is not realistic as far as task accomplishment. The team rarely veers off topic. Team members very rarely participate in side conversations. Goals are progressed monitored during each meeting.	The agenda is focused and realistic. It is sent out two days prior to the meeting. Participants are prepared in their roles and are able to provide information specific to agenda items when necessary. The discussions are always focused on agenda items. Goals are monitored for progress and reviewed for possible revision.
Share Ideas/ Collaboration	Members do not participate or add thoughts/ideas to discussion. They are not receptive to others' ideas.	Team members give more priority to their own concerns than to those of the team. Only a few members participate in discussions and feedback activities.	Members participate, share and contribute ideas and build on suggestions from others.	There is a familiarity, honesty, and mutual trust among the team that allows us to tap into our collective expertise.
Use Data to Inform Decisions	Data is not used to inform our team decisions.	The data we use is often incomplete or irrelevant or difficult to decipher or outdated or any combination of the above, and is therefore difficult to use to inform our decisions.	Data is used to inform our decisions, however the available data does not always meet our needs.	Specific and purposeful data is used to help us team make insightful and focused decisions.
Professionalism	Team members allow personal matters to interfere with the flow of the meeting. Conflicts arise and resolutions are unattainable because members take personal offense.	Team members agree to disagree respectfully, but have difficulty finding and accepting an agreeable resolution.	Team members use the conflict resolution mentor to help them compromise and resolve possible conflicts. The team finds an agreeable resolution.	Team members show respect to each other, negotiate conflicts in a non-personal manner, and approach conflicts with an open mind

Figure 4. Collaboratively created core team Innovation Configuartion map.

The team began using the innovation configuration map for evaluation purposes during the third core team meeting. At the end of each subsequent core team meeting, the participants evaluated the functionality of the team by circling the level of each component they felt the team achieved. After the fourth team meeting, the team was coached to use the innovation configuration map as an evaluative and reflective tool. They were asked to provide examples that supported their evaluation of each component and to offer at least one suggestion for improvement. The results of the team reflections were coded and are further articulated in the *Theme 3* discussion later in this section.

Coding Process and Themes

To analyze the qualitative data collected during this study I used both deductive—a priori (Weber, 1990), and inductive—grounded theory (Glaser & Strauss, 1967) coding. The purpose of the deductive coding was to identify coaching influences, transfer of learning to practice, and networking within the qualitative data sources. Inductive coding was used to identify emerging themes that would help explain and or interpret the behavior of the participants during a curriculum adoption.

For each qualitative data source, excluding the innovation configuration map, I used a multi-step process. Reflection text files, transcripts of sessions and interviews, and video were uploaded to the qualitative analysis software, HyperResearch (Researchware, 2012). After evaluating data sources, I noted initial thoughts and questions before proceeding with my coding process. Initially I approached the data inductively, coding line by line and then organizing relational codes into categories; Glaser and Strauss (1967) refer to this process as a grounded theory approach. Next, the data was coded using a priori codes; my start list. Miles and Huberman (1994) explain that, “A [start] list

comes from the conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the researcher brings to the study" (p. 58). Continuing to code in this manner, I recorded summaries and initial thoughts as memos to help process data and to record possible follow-up questions associated with each source. Writing memos is a function of analytical thought that allows a researcher to maintain a record of analyses (Corbin & Strauss, 2008). I wrote additional memos to help identify concepts that helped me continually compare codes to create categories and identify themes. Corbin and Strauss (2008) state, "This type of comparison is essential to all analysis because it allows the researcher to differentiate one category/theme from another and to identify properties and dimensions specific to that category/theme" (p. 73). The majority of the memo contents will be used in the Chapter 5 discussion. The following section presents the themes derived from the categories established from coding the qualitative data sources. Figure 5 summarizes the themes and their associated codes as well as how each theme relates to the research questions.

Figure 5. Emergent themes with associated codes, data sources, and relation to research question.

Theme	Codes	Source*	Question
1. The instructional coach was instrumental in assisting team functionality and efficiency.	Shared vision; Collaboration; Collective responsibility; Reflection; Sustainable artifacts; Purposeful	3; 4; 5	1
2. Participants felt supported and gained value from sharing their experiences and ideas during their core team meetings.	Sharing; Support; Internal networking	2; 3; 4; 5	1
3. Participants felt individual support from an instructional coach helped them understand and integrate Common Core standards in their planning, instruction, and assessment.	Partnership/collaboration; Modeling; Observing; Support	1; 2; 4; 5	1
4. Instructional coaches played a significant role in identifying and promoting new and existing networks.	External networking; Transfer – Teacher to teacher; Transfer – Teacher to team; External professional development	1; 2; 3; 4; 5; 6	1; 3
5. Participants experienced an increased confidence in the use of Common Core standards and in student abilities.	Anxiety; Student concerns; Confidence in students; Confidence in self; Gained understanding of Common Core standards	1; 2; 4; 5	1; 3
6. Participants and coaches exhibited frustration relating to initiative overload.	Change fatigue	1; 2; 3; 4; 5; 6	2
7. The instructional coaches were frustrated with time constraints.	Feeling distracted; Lack of time with coach; Coach time frustration	2; 3; 4; 6	2

**Individual coaching sessions- participant reflections=1; Individual coaching sessions- coaches reflections=2; Team meetings - coaches reflections = 3; Team meeting videos = 4; Personal interviews = 5; Coaches meeting notes = 6*

Instructional Coaching Approach

One of the main purposes of this study was to see how a new instructional coach could influence change, specifically a new curriculum adoption, among a staff of veteran teachers. Because my approach required three roles, I decided to collect data that would help me understand the value participants placed on each approach. The following sections describe the themes and support found within each approach: coaching teams, coaching individuals, and acting as a boundary broker between teams and networks.

Coaching Teams

To understand how my role as a team coach influenced the adoption of new curriculum standards, I collected data from my coaching reflections from both individual sessions and team sessions, team meeting videos, and personal interviews. Three in-vivo codes emerged through my initial inductive coding: Sharing, Support, and Purposeful. I then coded for five a priori codes: Shared Vision, Collaboration, Collective Responsibility, Reflection, and Sustainable Artifacts. The category, The Value of Internal Networking, was generated from the inductive codes: Sharing and Support. Deductive codes were used to show evidence of Team Functionality. Organizing my inductive and deductive codes in this manner allowed me to identify two themes associated with coaching teams.

Theme 1. The instructional coach was instrumental in assisting team functionality and efficiency.

The following a priori codes—Shared Vision, Collaboration, Collective Responsibility, Reflection, and Sustainable Artifacts—were meant to identify evidence of

team functionality. Additionally, one in vivo code, Purposeful, emerged during my inductive coding process and was added to the group of deductive codes.

I found evidence of the effective components of teaming introduced during the first two meetings in the team meeting videos, agendas, and minutes. Members created the innovation configuration map (see Table 4), assigned roles, established norms, and created two team goals:

- Student Achievement Goal: During the 2013-2014 school year, the bottom 25% of students in reading and math as identified in the September 2013 data will increase their median percentile scores in math and reading by 25% as measured by quarterly data analysis of current assessment scores.
- Professional Development Goal: During the 2013-2014 school year, core 8-2 will collaborate to create Depth of Knowledge (DOK) 3 and DOK 4 tasks and tiered assessments to raise awareness of the College and Career Readiness Standards. Progress towards this goal will be measured through identification of transfer to classroom use through observations and team dialogue.

Additionally, the team decided that it would be beneficial to identify their team purpose. The purposes of the core team meetings are as follows:

- Support one another in a collaborative manner during the campus adoption of the Arizona College and Career Readiness Standards;
- Analyze student data to determine response to intervention needs;
- Establish a network that supports the communication of ideas and resources from both internal and external sources;

Furthermore, the team elected to publish the norms, goals, and purposes on every agenda (see Appendix H). Exit interviews provided additional support that the teaming components introduced assisted team functionality. All five participants indicated they found value in the components of teaming and felt purposeful and focused. The following table illustrates evidence of the a priori codes.

a priori Code	**Evidence**
Shared Vision	The first goal of raising professional awareness of how CCSS can be implemented effectively in classrooms was proposed… A second goal proposed that we look at using interventions to raise academic scores/ grades, as well as address any behavior issues that correlate to the "bottom 25%" students. (Sam, Field Notes, September 26, 2013)
Collaboration	When you're trying something new and you're pulling in these literacy components, it's just great to have the support from your language arts teacher and all the other teachers, because we're all incorporating all of those in our lessons. I have found that to be the most helpful. (Debbie, Exit Interview, December 5, 2013)
Collective Responsibility	I mean, we kept on task. Everybody had a job, a duty, and we all stuck to it. I think it worked really well. (Darrin, Exit Interview, December 4, 2013)
Sustainable Reification or Artifacts	I like the map. I think it's very helpful and it helps facilitate what we're trying to do. It helps us stay focused, keeps our agenda straight, and keeps us working really well. (Rich, Exit Interview, December 5, 2013)
Reflection	I think it was a really cool thing to kind of… gauge where we were at and then to look at what areas we can improve or what areas we left out to make sure we incorporate in the following session. I think that it did help. (Nick, Exit Interview, December 2, 2013)

Figure 6. Evidence of a priori coding for effective teaming.

Additionally, one in-vivo code emerged to lend support to the effectiveness of the teaming components: Purposeful. Evidence of this code was found throughout team meeting videos and during team reflections (see Figure 7). The column headings identify the teaming components developed for the team's innovation configuration map. The row headings indicate the date of the meetings that participants evaluated their team functionality. The contents of the table indicate at which level the team scored their functionality based on the innovation configuration map (see Figure 4) and any comments left by team members or coach reflections.

	Purposeful & Focused	Share Ideas/ Collaboration	Use Data to Inform Decisions	Professionalism
Oct. 9, 2013 Meeting	Level 2 Comments: Agenda was not realistic for task accomplishment	Level 3 No Comments	Not scored - Components in development stage	Not scored - Components in development stage
Oct. 23, 2013 Meeting	Level 3 No Comments	N/A – Comments: Instructional coach explained flipbook resource	N/A – Comments: No Data was used during this meeting	Level 4 No Comments
Nov. 13, 2013 Meeting	Level 3/Level 4 Comments: Agenda was not realistic for task accomplishment	Level 3/Level 4 Comments: Some members shared ideas	Level 3/Level 4 Comments: Use of Math and ELA data helped	Level 4 Comments: Wow! We covered a lot of ground in the time allotted. Good productive discussions.
Nov. 27, 2013 Meeting	Level 4 Comments: Agenda was focused and realistic. We are making progress towards our goals.	Level 4 Comments: The conversation and reflection around the experiences of using Common Core strategies in Debbie's and Darrin's practice allowed us to gain more insight into the use of the standards.	Level 3/Level 4 Comments: We used data to create our intervention logs, but we are still unsure how that data will be used to inform future decisions.	Level 4 Comments: Team members were open minded, respectful, and cooperative.

Figure 7. Evaluation of team functionality using the innovation configuration map.

As illustrated in Figure 7, there is evidence of an increase in the participants' perception of performance for the *Purposeful & Focused* category using the team innovation configuration map (see Figure 4 to reference level descriptions) as a reflective instrument over the course of four team meetings. After the October 9, 2013 team meeting participants rated *Purposeful & Focused* at a level 2.5 (developing). The team collectively agreed there was insufficient time during the meeting to accomplish the various agenda items. At the end of the following meeting on October 23, 2013 the team rated *Purposeful & Focused* as a level 3 (functioning). There were no participant comments, however in my field notes I wrote, "We completed the tasks carried over from the October 9, 2013 agenda. Time or the lack thereof seems to be an issue of concern. We don't seem to have enough time to accomplish what needs to be done" (Coach Team Reflection, October 23, 2013). The reflection data for the November 13, 2013 meeting showed another gain in efficiency for the *Purposeful & Focused* category and participants rated it at an average of 3.75 (between functioning and excelling). One anonymous comment written on a reflection matrix stated, "Too much on the agenda" (Team Reflection, November 13, 2013). The final reflection after the November 27, 2013 meeting showed that all participants scored the *Purposeful & Focused* category at a level 4 (excelling). Participants did not leave comments; however; the following quote came from my team reflection notes:

> Team members felt the agenda was focused and realistic. Participants were prepared in their roles and the discussions were aligned to the agenda items. We are making progress towards our goals in that we will be working with an intervention log to monitor student intervention. Additionally, walk-through data indicates an increased use of CCSS and higher depth of knowledge tasks and activities. (Coach Team Reflection, November 27, 2013)

The above evidence indicates the team was able to assimilate and effectively use the teaming components introduced by the instructional coach at the beginning of the study to ensure their meetings were purposeful and productive.

Theme 2. Participants felt supported and gained value from sharing their experiences and ideas during their core team meetings.

The concepts of Sharing and Support as valuable components to the team meetings began to emerge as inductive codes in the qualitative data when the participants started using strategies they learned from professional development sessions and when they experienced success with individual coaching sessions. Four out of the five participants indicated that having team members share their experiences with the use of Common Core standards (Common Core State Standards Initiative, 2010) and strategies helped them feel more comfortable in adopting the standards. During his exit interview Rich stated, "I think, again, hearing from a lot of the other teachers that this is what's working and this is how I did it and the scaffolding has to be done this way. That's really helped me out too" (December 4, 2013). This evidence indicates that teachers in the study gained value from listening and dialoging with each other regarding their individual experiences in using Common Core standards or strategies. Sharing their lesson experiences during meetings allowed team members to approach their practice of a strategy or standard with some prior knowledge of successful and/or unsuccessful approaches.

Additionally, sharing their experiences and ideas with each other gave some members added value. Darrin stated in his exit interview:

> I think definitely seeing the other teachers in the study and listening to them talk about what they did in class and how they were excited and that they saw really good results. It kind of motivates me to say, "Hey, you know, I have to do this. I have to try this and see how I can help the students." (December 4, 2013)

While Debbie stated:

> It's impacted me a lot. I know we go to the in-services, but most of the time the in-services go too fast. Then they don't let us practice enough…You don't get the real experience of it. When we come together in our team meetings, we can talk about it. We can get more detail, more information. Then other people share what they've done and tried. It makes you feel comfortable. It is like, "Well, I can do this too." (Exit Interview, December 5, 2013)

Evidence from the above statements indicate that this form of internal networking helped to motivate participants in the sense that when they shared in the successes of their team members, they gained the personal confidence needed to try the strategies themselves.

In addition to sharing, the support of the team also appeared to benefit participants during the curriculum standards adoption. Debbie shared the following:

> I've gotten a lot out of the core meetings. I think it's great for us to share, have a time where we set a meeting, and we come together and do a formal sharing all together. Whether it's talking about individual students or whether it's about lesson planning or data, it's just been really helpful to have all of us there. Because when you're just doing it on your own, especially as a science teacher – yes, I look at the math, and yes, I look at the language arts, because they both have a component in science, but it makes a difference when you have that teacher there and sharing. (Exit Interview, December 5, 2013)

This evidence illustrates that having cross-curricular support helped participants understand how the Common Core standards related to their specific content. In addition, Nick shared a different component of support:

> I can certainly take from what they say and get good ideas, or at the very least, I can kind of commiserate with them and realize, hey, I'm having that same problem, too. Maybe it was nice to just have a vessel to either vent our frustrations for whatever's tough right now or to share ideas or to share celebrations and talk about how, wow, I did this, and it's really good. It's helping me… a lot. (Exit Interview, December 2, 2013)

Nick's response lends evidence to the idea that moral support and affirmations were of value to the participants in that the sharing of common experiences and celebrations affirmed their progress in the adoption.

Cindy however had a different perspective regarding the support of her core team:

> There's something that I'm personally missing, and …that…is I was hoping that [the team meetings] were going to create some cross-curricular connections, and it hasn't done that. I'm really frustrated. Last year, I was on a core [team] that couldn't have cared less [about cross-curricular planning], and it seems like the same thing's happening this year. Nobody's interested in any kind of cross-curricular connection, and everybody's all uptight. (Exit Interview, December 2, 2013)

This quote implies that Cindy wanted the team meetings to be a time to plan cross-content units. It is evident she was disappointed that this type of support was not offered during the meetings.

Coaching Individuals

To understand how my role as an instructional coach for individuals influenced the adoption of new curriculum standards, I collected data from my participant reflections, coaching reflections from individual sessions, team meeting videos, and personal interviews. A priori codes from Jim Knight's research on instructional coaching (2007) helped identify whether individual coaching sessions aided participants in adopting new curriculum standards. The a priori codes were as follows: Partnership/Collaboration, Modeling, Observing, and Support. The codes were pulled directly from my personal instructional coach innovation configuration map (see Appendix B). From these codes one theme associated with coaching individuals emerged.

Theme 3. Participants felt the individual support from an instructional coach helped them understand and integrate Common Core standards in their planning, instruction, and assessment.

This section describes each code followed by evidence from the individual coaching session reflections and personal interviews. All five participants agreed that individual coaching sessions helped them use and understand Common Core standards and strategies; however, as discussed in chapter 5, some participants indicated individual coaching sessions were the most helpful of the three approaches.

The code Partnership/Collaboration is defined as the development of a partnership relationship with teachers through participation in frequent reflective dialogue, active listening, conversations that engage the exchange or enhancement of ideas, shared problem solving, and co-creating (Knight, 2007). In one of her personal reflections regarding a collaborative session, Cindy stated:

> Having the opportunity to plan [a lesson using Common Core standards] together was invaluable…because you've got two sets of eyes looking at it. Your interpretation of it is a little different from my interpretation of it, and the pitfalls that you foresaw were different from the ones that I foresaw. That combined, I think, made what we came up with, the plans, that much stronger. (November 14, 2013)

This evidence indicates that by exchanging or enhancing ideas and co-creating lessons with Cindy, the instructional coach was able to support her in integrating Common Core standards in her lessons. Rich also commented on the benefits of collaborating with an instructional coach:

> The brainstorming was really helpful. Looking at the questions that I had [come] up with and then—it wasn't like you guys were harpooning me for having bad questions. It was, "Okay, that's good. How can we gear this more towards Common Core?" (Personal Reflection, October 22, 2013)

The above comment illustrates evidence that Rich found value in the reflective dialogue that occurred between him and the instructional coach during a session in which they collaboratively worked on a tiered assessment using Common Core standards.

The code Modeling is defined as the instructional coach interacting with students during lessons, clearly identifying the relationship with the teacher as a partnership, and learning from the collaborating teacher (Knight, 2007). After one of the coaching sessions, Cindy reflected:

> To have you get involved in helping the students lent even more credence and gave more depth to your insights because it wasn't just what you were seeing; it was actually, "Oh, I'm talking to the kids now and this is what they need." (November 14, 2013)

This evidence indicates that because the instructional coach approached the co-teaching as a partnership, Cindy was more apt to trust and respect the coach's feedback as authentic, and therefore would be more willing to act upon the feedback.

The code Observing is defined as the instructional coach identifying fundamental teaching practices that are learned and to clarify what critical teaching behaviors are observed through a collaborative discussion with the teacher (Knight, 2007). Debbie reflected:

> If it doesn't work, then it's so great having that feedback, having you in here, talking about it beforehand, talking about it during and after to see how it went. Then you can keep improving on it, because so much of the time, we want things to just go perfect. We try something new, and it's not perfect. Then we think, oh, well. That didn't really work. (November 4, 2013)

Debbie's reflection shows evidence that the observations helped her because she was able to obtain relevant, just in time information, while practicing the Common Core strategy.

The code Support is defined as the instructional coach providing support through resource management, consistent feedback, and encouragement (Knight, 2007). After an independent coaching session with Rich he reflected:

> I felt like the [sessions] have helped me with not only my lesson planning but designing it with Common Core. My understanding of the Common Core has grown. My ability to understand the flipchart and understand how to apply it, and use it inside my lessons has grown significantly to where it's driving my lessons. (November 4, 2013)

This evidence implies the instructional coach's distribution and support of resources to aid in the adoption of Common Core standards helped Rich gain a deeper understanding of the Common Core standards.

Finally, Nick's perceived value of individual coaching sessions was lower than that of the other participants:

> I think for my particular case, working with the instructional coach wasn't really that much different than what I was doing already. Now having said that, I think that if I wasn't involved in the AMP project and I didn't already work so closely with Sam, I think that there could've been a lot more value. (Exit Interview, December 2, 2013)

As noted earlier, Nick is a member of a highly functioning math professional learning community. He is supported by his team and afforded time to collaborate with them to develop shared resources. Because of this established membership, there is evidence that Nick values the support of the math team more than that of individual coaching sessions with the math coach. Additionally, Sam is associated with the same professional learning community as Nick.

Instructional Coaches' Influence on Networks

To explore an instructional coach's influence on identifying and promoting networks to help facilitate a curriculum standards adoption, I created four a priori codes

to help identify evidence of boundary brokering: External Networking, defined as a participants' involvement in a network outside of their core team environment. This could include involvement in other professional learning communities, content area teams, or professional networks. The Transfer code was split into two sub codes, Transfer—Teacher to Teacher code, meaning teachers within the study share their new knowledge, experiences, or resources with other teachers outside of the study group, and Transfer—Teacher to Team code, meaning teachers within the study share their new knowledge, experiences, or resources with other teams outside of the study group. The External Professional Development code is defined as teachers within the study share new knowledge, experiences, or resources gained from external professional development opportunities that were identified by the instructional coach with other teachers or teams outside of the study group. From these codes one theme associated with instructional coaches' influence on networks emerged.

Theme 4. Instructional coaches played a significant role in identifying and promoting existing networks.

Figure 8 provides evidence for each of the a priori codes to support the emergent theme of networking.

a priori Code	Evidence
External Networking	It [participation in the study] kind of got me to think outside of my classroom, which I think a lot of teachers [think], "This is where I'm at. This is what I'm doing. This is my job. This is my classroom." Certainly with good reason, but I think it was interesting for me… to even think about my knowledge of the Common Core or the things I'm doing, how can that help or affect other teachers here at school or other teachers across the country, perhaps, or other teachers in the district? That was one of the areas, I think, that Sam kind of brought in with a lot of his questioning. Got us to think about that. (Nick, Exit Interview, December 2, 2013)
Transfer – Teacher to Teacher	I got so excited about my compare and contrast activity unit that I set up with you, that I shared it with the teacher next door to me. I said, "I tried this, and it was so great." I showed it to him, and he goes, "Wow, this is great." Then he did it. (Debbie, Exit Interview, December 5, 2013) I think [at] our last [content area team] meeting I definitely felt…useful, understanding the Common Core Standards, and helping some of the teachers who haven't adopted them quite to the fullest yet, understand them and get them into a test. (Rich, Exit Interview, December 4, 2013)
Transfer – Teacher to Team	Because of our work with Rich, and Sam's experience with tiered assessment, both Sam and I were invited to participate in the full day Social Studies work day today. This is a prime example of promoting networking. (JoAnn, Field Notes, November 6, 2013) Today the social studies team chairperson shared their workday success with the campus leadership team at the monthly meeting. Many of the members [content area chairpersons] seemed interested in both the collaborative effort and the shared planning. Some were interested in the tiered assessments. After the meeting Sam and I were asked to join both the science team work day and the ELA team work day. I am really noticing an increase in the networking occurring throughout the campus. More and more teachers are sharing their thinking, experiences, and products. (JoAnn, Field Notes, November 11, 2013)
External Professional Development	I liked our discussion about anchor standards [from individual coaching session]. [Then]…I liked the conversation that I listened to at our ELA training from… the young man who helped write the questions that we had so much problem with the DVRA the first time around. It was really refreshing and reassuring to hear him talk about how they had written the questions, why they had written the questions, what kind of responses they were looking for. It made a lot more sense after—all those things taken together. Of course I liked the ELA training a lot and I like implementing it in the classroom and having more people to talk about this with. Now Jane and I can talk about this, Alice and I can talk about this, you and I can talk about it—it's just not like I'm out there all by myself anymore trying to figure out what in the world this stuff is. (Cindy, Personal Reflection, October 28, 2013)

Figure 8. Evidence of a priori coding for coaches' role in identifying and promoting networks.

The following section summarizes Figure 8. Evidence from the External Networking code implies Sam influenced Nick to start thinking about how he could help other teachers adopt Common Core standards. The evidence infers that Sam's influence caused Nick to shift his thoughts about his professional growth from a personal perspective to a more global perspective.

Next, the Transfer—Teacher to Teacher code provides evidence that both Debbie and Rich shared their new knowledge and experiences gained from the individual coaching sessions with other teachers on campus. The Transfer—Teacher to Team code identified evidence that Rich's success with using Common Core standards influenced his content area team to ask for the instructional coaches to attend the social studies full day planning sessions. Additionally, when the social studies team shared the planning day outcomes and processes, including the contributions of the instructional coaches with the leadership team, both instructional coaches were asked to participate in the science and English language arts full day planning sessions.

Finally, evidence from the last code, External Professional Development, infers that Cindy continued to build on her new knowledge of anchor standards developed in her individual coaching sessions by entering a discussion of the topic with me and other teachers in the district at a district level professional development event. The evidence also indicates that Cindy found value in discussing the implementation of new strategies learned in the district training sessions with her peers on campus.

One study participant stated he did not experience the benefits of external networking influenced by an instructional coach. In his exit interview, Darrin stated, "I'm always willing to share. I didn't really get a lot of practice with that through this [study]"

(December 4, 2013). This evidence indicates Darrin did not have the opportunity to receive or transfer new skills and knowledge to external teams or teachers.

Increased Teacher Confidence

One of the themes that emerged from the data through inductive coding was that of increased participant confidence in the use of the standards and in students' abilities.

Theme 5. Participants experienced an increased confidence in the use of Common Core standards and in student abilities.

In order to tell this story, the following five inductive codes were constantly compared over time. Then the codes were organized in categories that helped identify increased confidence over time: Anxiety, Student Concerns, Gained Understanding of Common Core Standards, Confidence in Self, and Confidence in Students. The following three figures (Figure 9, 10, and 11) illustrate evidence of increased confidence over a period of time. Each figure identifies the participant, the date of each reflection, and evidence supporting an increased level of confidence.

Date	Evidence
September	During a conversation about assessing common core standards, Cindy stated, "It's just, my brain is doing what cars do when you forget to put the clutch in and you change gears" (Personal Reflection, September 9, 2013). I'm going to start teaching poetry and I will make sure that all of the questions that are in here – elements of literature – are covered and are covered well. (Personal Reflection, September 9, 2013)
October	We agreed that we would have to continue to plan with the idea of anchor standards in mind. She also agreed that now she could see how the standards were intended to slow instruction so that students could delve more deeply into the content. (JoAnn, Field Notes, October 28, 2014)
November	I just had a horrible, horrible day. I felt that the kids didn't understand what I wanted or that I was asking too much from them and they couldn't reach where I wanted them to climb up to. They just reacted like kids always react, and there was a lot of bad behavior. It was extremely frustrating on my part, and I felt they needed something else. At first, I thought what they needed was a little discipline *[laughter]*, and then after that, I thought, well, maybe they need some scaffolding. (Personal Reflection, November 4, 2013) After adjusting the lesson, Cindy seemed to feel better about how to proceed. This morning, after observing the changes she made to her lesson the night before, I offered her feedback. During her lunch period, she came to tell me she had had more success with the lesson during her third period class. She was excited and she felt the students were engaged and on task much more than the first class had been…This was definitely not the same frustrated teacher I spoke with yesterday. (JoAnn, Field Notes, November 5, 2013) Reflecting on her use of the strategy she practiced on November 5, Cindy stated, "Oh, my gosh! It's so wonderful. I mean, the kids feel really, really good. They feel like they're smart. They feel like they can do it" (Personal Reflection, November 14, 2013). When you can do enough of these activities, strategies, and be successful, and slow down, and take time, and rework assignments so that there's some real learning and understanding going on, and we're beginning to see transfer, I think the payoff is going be much more than just good grades. I think it's going to be something intrinsic, that these kids are going to be able to walk away with something inside them, this bit of hope. "I can do this. I have some tools now." That's powerful, what if more people were able to help more students feel that way? (Personal Reflection, November 14, 2013)

Figure 9. Chronological evidence of increased participant confidence – Cindy.

The evidence in Cindy's story indicates she initially felt overwhelmed with the magnitude of the adoption, in this instance as it related to added Common Core assessments. There is also evidence that at the beginning of the study she had a limited understanding of the purpose of the Common Core standards. In September she talked of "covering" concepts, however by October her reflections indicate she realizes the standards are meant to support depth of knowledge. Additionally, her November reflections demonstrate a shift in her assignment of blame for lesson failure from student behavior to her own instructional approach. Finally, evidence indicates that as she experienced success using Common Core strategies, she began to associate her success in using the standards effectively with an increase in the students' confidence in their own academic abilities.

Evidence	Date
September to October	In his reflection of his four sessions with the instructional coaches to collaborate on the development of tiered assessments and lesson design using both Common Core history literacy standards and social studies content standards, Rich stated: When I first started this year, they [students] struggled with the College and Career Readiness Standards, answering questions [requiring] high-level thinking, it was almost like a foreign concept. Now that the kids have started to settle in [becoming more used to the tiered assessment questions], they are more [willing to write] essays. They're more [willing to respond to] writing prompts and things like that. I think using [the history literacy standards] helped out a lot. (Personal Reflection, October 22, 2013) "Now my mind is thinking more towards, "How can I use this [CCSS] standard to implement and facilitate this history standard?" (Personal Reflection, October 22, 2013)

Figure 10. Chronological evidence of increased participant confidence – Rich.

At the beginning of Rich's story, he indicated his students struggled with assessment questions that required critical thought. However, evidence from his reflections show that after working with the Common Core standards to develop assessments measuring a student's depth of knowledge of a concept and embedding literacy instruction within his lesson plans, he believed his students' engagement in writing activities increased. Additionally the evidence implies he believed his experience with using the content literacy standards in lessons and assessments helped increase student engagement, which illustrates an increased confidence in his practice.

Date	Evidence
September	This group is acting like they've never done [close reading] before, and so I've been starting out slow with them. I haven't used any articles, but that is because we've been doing chemistry (Personal Reflection, September 25, 2013).
November	Reflecting on the use of a Common Core strategy, Debbie stated, "This is teaching. It's going into more depth; it is deeper learning than just … scratching the surface" (Debbie, Personal Reflection, November 4, 2013). They [the students] immediately thought…we don't do this in science. Then they said, "Oh…[our language arts teacher] taught us how to do this." I [told them I thought] this would help [them]. The kids [replied],"Oh, yeah. This is really great." They really did like it. They did really well with it. [On our] next school day, we're going to use that and then do the writing extension with it (Personal Reflection, November 22, 2013). She said she gave them transition tools and modeled how to write a comparative response and the student writing reflected much better writing outcomes (JoAnn, Field Notes, November 26, 2013)

Figure 11. Chronological evidence of increased participant confidence – Debbie.

In reviewing Debbie's story, her September reflection indicated she had limited confidence in her students' ability to participate successfully in a close read activity. The

evidence also infers she viewed the Common Core standards as literacy standards separate from her content standards instead of as literacy standards to use in teaching science content. By November however, her reflections illustrate a growing confidence in her use of literacy strategies to teach her content. Specifically, the evidence indicates she began teaching purposeful writing instead of assigning it and that because of this approach her students writing outcomes were much improved.

Barriers Inhibiting the Adoption of New Curriculum Standards

Several of my initial codes identified negative emotions associated with current initiatives and a sense of being overwhelmed or anxious. While comparing and grouping the codes referencing emotion, I realized many of them were associated with initiative overload, "When organizations launch more change initiatives than anyone could ever reasonably handle" (Abrahamson, 2004, p. 94), and frustration over lack of time. The following two themes emerged through my inductive coding process.

Theme 6. Participants exhibited frustration related to initiative overload.

Four of the five participants expressed some form of frustration associated with initiative overload, and evidence of this can be found throughout all data sets. As early in the school year as September, Cindy stated:

> We had so many wrenches this year. I mean, all the different things that are coming from district that nobody expected, then the math teacher [quit] and the cores [got] mixed up. I mean, it's just one thing after another. (Personal Reflection, September 19, 2013)

Cindy's reflection provides evidence that she feels overwhelmed by the new initiatives from the district and campus personnel changes.

Additionally, Debbie expresses her frustration, "There's never enough time, when you go and learn something, to really learn how to do it and apply it to your subject area to see how it can work for you" (Personal Reflection, November 22, 2013). The evidence from Debbie's quote infers she does not feel she is provided with enough time to learn and practice content associated with new initiatives. Finally, Sam noted that Nick was experiencing stress when he stated:

> I was concerned about Nick's state of mind after meeting with him earlier in the day before school. He seemed visibly agitated when I reminded him of our upcoming Core meeting. I paid another visit two hours later and asked if everything was okay since he seems to be a bit stressed lately. He responded that he was feeling like he was buried under a ton of work and was having difficulty catching up. (Field Notes, September 25, 2013)

Again, Sam's reflection provides evidence that the work load associated with Nick's professional practice at Valley Middle School was overwhelming at times.

Theme 7. The instructional coaches were frustrated with time constraints.

The in-vivo code of time prevalent throughout the coaches' reflections provides the evidence to support the final theme of coaches' frustration regarding a perceived lack of time to effectively support teams and individual teachers. In one of my field note entries I wrote:

> The frustration came from last minute additions to the agenda that knocked the Common Core standards review off. The counselor needed to talk about open General Education Intervention Team (GEIT) requests that needed to be processed and reviewed. We also had to discuss a district requirement for report cards. These two activities consumed the majority of time. (October 9, 2013)

My frustration is evident in the above passage illustrating my concern about being unable to provide needed professional development for teachers associated with CCSS.

Furthermore, Sam's reflection provides additional evidence of stress associated with time, "I observed that JoAnn seemed to be concerned with our limited amount of time which then caused her to interject her thoughts a bit too soon" (September 26, 2013). Sam's observation provides evidence that he was concerned that because I was worried about the time, I began taking control of the meeting thus diminishing the roles of the team.

Finally, in regards to time constraints associated with scheduling individual sessions I stated:

> Debbie and I are having a hard time meeting. We have tried several times to meet in the past week and a half but each time one of us has been pulled away to proctor exams or serve substitute rotation duty. I will continue to pursue our second meeting. (Field Notes, October 1, 2013)

My reflection shows evidence of trouble scheduling individual sessions because of temporary duties assigned to teachers and instructional coaches outside of our defined campus role.

In conclusion, the qualitative data analysis produced seven themes that helped answer the three research questions. Figure 12 summarizes the qualitative themes as they relate to the research questions.

Research Question	Themes
How does the instructional coach in three roles — coaching teams, coaching individuals, and acting as a boundary broker between teams and networks— influence the adoption of Common Core standards among a veteran staff at a middle school?	1. Participants felt supported and gained value from sharing their experiences and ideas during their core team meetings. 2. The instructional coach was instrumental in assisting team functionality and efficiency. 3. Participants felt individual support from an instructional coach helped them understand and integrate Common Core standards in their planning, instruction, and assessment. 4. Instructional coaches played a role in identifying and promoting new and existing networks. 5. Participants experienced an increased confidence in the use of Common Core standards and in student abilities.
What barriers inhibit the adoption of new curriculum standards?	6. Participants and coaches exhibited frustration relating to change fatigue. 7. The instructional coaches were frustrated with time constraints.
How does an instructional coach impact social capital during a new curriculum standards adoption?	1. Participants felt supported and gained value from sharing their experiences and ideas during their core team meetings. 4. Instructional coaches played a role in identifying and promoting new and existing networks. 5. Participants experienced an increased confidence in the use of Common Core standards and in student abilities.

Figure 12. Qualitative themes relating to individual research questions.

Quantitative Data

The quantitative data for this study was designed to complement the data from the qualitative data sources which will be outlined in Chapter 5. Specifically, the Stages of Concern Questionnaire measured any changes in the concern levels of the teachers in this study regarding the adoption of new curriculum standards.

Stages of Concern Questionnaire

I used the Stages of Concern Quick Scoring Device to score the Stages of Concern Questionnaires. Because the pre-study questionnaire results helped inform my individual coaching approach for each participant, the data was collected and analyzed according to the individual rather than the team. The following charts contrast the pre and post responses for each individual. Additionally, member checking interviews yielded clarification and reliability of the data, which will be discussed further in Chapter 5.

First and second highest stage score interpretations were used to help identify the greatest stage of concern for each individual. The percentile scores for each stage were generated using the scoring device and then plotted on the line graph. The higher the percentile scores the greater the intensity of concern in that stage. Table 3 identifies and defines the seven Stages of Concern relating to the scoring device.

Table 3

Stages of Concern Relating to Scoring Device

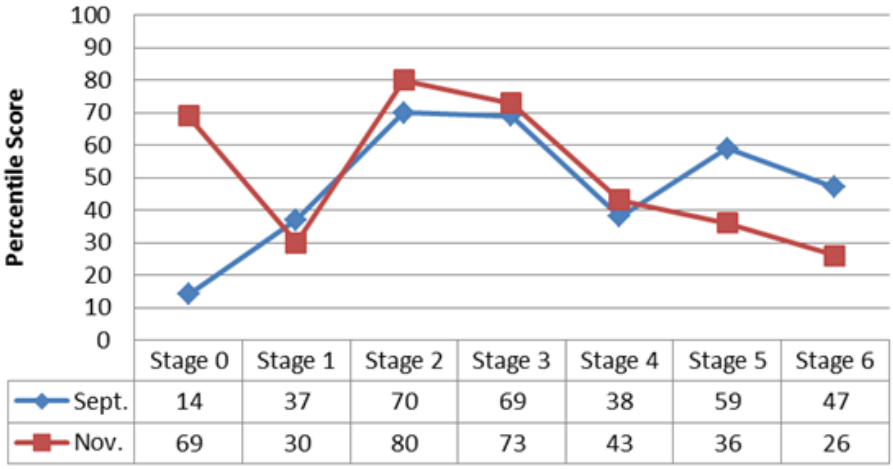
Stage	Concern
6 - Refocusing	High stage 6 scores indicates the respondent feels that he or she knows all about the innovation and has ideas on how to improve the situation.
5 - Collaboration	High scores in stage 5 are indicative of the respondent's concerns regarding the effectiveness of working with others during the adoption of the innovation.
4 - Consequence	Stage 4 high scores relate to the respondents concerns regarding the consequences of the use of the innovation for students.
3 - Management	High scores in stage 3 illustrate an intense concern for the logistics, management, and time necessary to adopt and use the innovation.
2 - Personal	High stage 2 scores indicate a focus on self-concerns. Typically the respondent is concerned about rewards, change in status, and any other possible effects the innovation might have on them.
1 - Informational	High scores in this stage typically illustrate the respondent's desire for more information regarding the innovation.
0 - Unconcerned	The scores in this stage are indicative of the level of priority the respondent places on the innovation. Often additional data is needed to determine whether the participant is using the innovation.

(George et al., 2013)

The following graphs demonstrate the respondent's intensity of concern for each stage. Stages 0 through 6 are identified along the X axis. The percentile score for each stage from September is listed directly below the stage label and the percentile scores from November are listed below the September scores. The intensity, or level of concern,

runs along the Y axis from 0 indicating the lowest level of concern to 100 indicating the highest level of concern. I used *Measuring Implementation in Schools, The Stage of Concern Questionnaire* by George et al. (2013) to interpret the meaning of the respondents' scores and profiles. The individual results follow:

Cindy. Cindy is a middle school English language arts teacher and her demographic information stated she was in her second year of Common Core State Standards (CCSS) adoption. She considers herself an intermediate in the use of the standards and she has attended several training sessions regarding CCSS. Currently she is in the second year of a district-wide systems approach to continuous improvement adoption, the first year of a district wide teacher evaluation adoption, the first year of campus wide Response to Intervention-Behavior systems adoption, and the first year of piloting three formative and three summative multi-day district level Partnership for Assessment of Readiness for College and Careers (PARCC) predictive assessments. Figure 13 illustrates Cindy's results on both the pre and post Stages of Concern Questionnaire.



	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Sept.	14	37	70	69	38	59	47
Nov.	69	30	80	73	43	36	26

Figure 13. Cindy's Stages of Concern Questionnaire results.

In September, Cindy's peak percentile score was a 70 in Stage 2- Personal. Her second highest percentile score was a 69 in Stage 3-Management. According to George et al. (2013) it is common that the highest and second highest scores will be adjacent to each other, "Because of the developmental nature of concerns, the second highest Stage of Concern often will be adjacent to the highest one" (p. 34). Cindy's first and second highest stage score pattern indicated a high level of concern regarding performance relative to others on campus. It also suggested concerns about the effects of the innovation on the individual's status on campus and/or in specific departments. The high Stage 3-Management percentile score revealed a deep concern regarding the management of the innovation. This score suggests that participants may be highly concerned with managing the resources, time, planning, and executing the strategies and lessons associated with CCSS. Additionally, Cindy had a low Stage 0 percentile score of 14; which implied the adoption of CCSS was a high priority for this participant.

Cindy's November post study responses were similar to her September responses only with an increased intensity in Stages 2 and 3. She scored highest in Stage 2-Personal

with an increased intensity in percentile score from 70 to 80, and in Stage 3-Management with an increased intensity from 69 to 73. Additionally, her greatest degree of change in intensity among all stages was in Stage 0 from a percentile score of 14 in September to a 69 in November. The increased level of concern in Stage 0-Unconcerned from a percentile score of 14 to a 69 suggesting a decreased priority in adopting the CCSS. Finally, Cindy's concern in Stage 5-Collaboration and Stage 6-Refocusing diminished during the study. In September, Cindy recorded a percentile score of 59 in Stage 5; however in November her level of concern decreased to a percentile score of 36. This indicates an increased willingness to collaborate with others to help adopt the standards. Furthermore, her Stage 6-Refocusing percentile score in September was a 47, yet in November her Stage 6 percentile score was a 26. The decreased level of concern in this stage indicates awareness that there is more to learn about the adoption of the CCSS.

Debbie. Debbie is a middle school science teacher in her second year of Common Core State Standards adoption. She considers herself a novice in the use of the standards and has only recently attended whole campus limited training sessions on instructional strategies aligned to Common Core Standards. She is in the second year of a district wide systems approach to continuous improvement adoption, the first year of a district wide teacher evaluation adoption, and the first year of campus wide positive behavior intervention system adoption. Figure 14 illustrates Debbie's results on both the pre and post Stages of Concern Questionnaire.

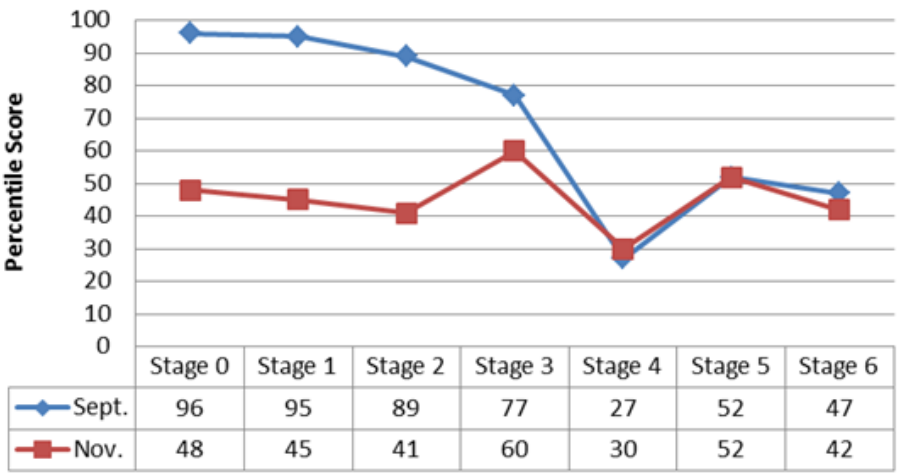


Figure 14. Debbie's Stages of Concern Questionnaire results.

Debbie's peak percentile score in September was a 96 in Stage 0-Unconcerned. Her second highest percentile score was a 95 in Stage 1-Informational. Debbie's three highest percentile scores were found in Stages 0, 1, and 2, and her three lowest percentile scores were found in Stages 4, 5, and 6. This is a common profile that often identifies a nonuser. Additionally, her Stage 1 percentile score was distinctly higher than her Stage 2 percentile score, inferring a positive attitude regarding the adoption of the CCSS and a proactive perspective regarding the innovation. This type of profile is considered a "positive one-two split" (George et al., 2013, p. 40) and it often indicates the participant is interested in learning more about the innovation or adoption.

Debbie's November post study responses showed dramatically different levels of intensity in Stages 1, 2, and 3 and virtually unchanged intensity levels in Stages 4, 5, and 6 from her September responses. On her November questionnaire, Debbie scored highest in Stage 3-Management even though she decreased her intensity in this Stage from September's percentile score of 77 to November's percentile score of 60. The dramatic

decrease in intensity in Stage 0 from September's percentile score of 96 to November's percentile score of 48, from her Stage 1 September's percentile score of 95 to November's percentile score of 45, and from her Stage 2 September percentile score of 89 to November's percentile score of 41 indicates a decrease in the need for information and personal concerns and a more focused concern regarding the management of adopting the standards. The differences between the percentile scores in Stages 0, 1, and 2 also indicate a greater familiarity with the standards and use of the standards than was present in September, prior to the study. Her level of intensity in concern Stages 4, 5, and 6 were consistent with her September percentile scores and showed minimal or no change in intensity among those stages.

Rich. Rich, a middle school social studies teacher, is in his first year of a district wide systems approach to continuous improvement adoption, the first year of a district wide teacher evaluation adoption, and the first year of campus wide positive behavior intervention system adoption. He also participates in a new teacher program facilitated by a district mentor. Figure 15 illustrates Rich's results on both the pre and post Stages of Concern Questionnaire.

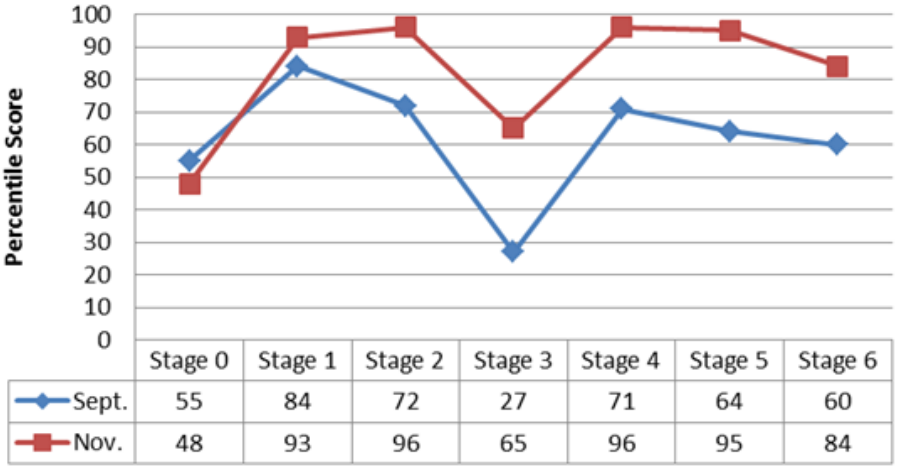


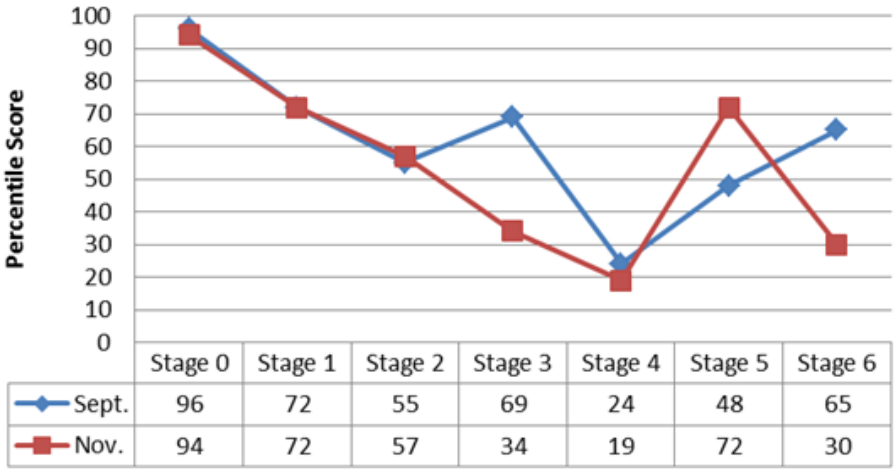
Figure 15. Rich's Stages of Concern Questionnaire results.

In September, Rich's peak percentile score was an 84 in Stage 1-Informational. His second highest percentile score was a 72 in Stage 2-Personal. Again the profile shows adjacent first and second highest scores which suggest a strong desire for information and some uneasiness towards the adoption of the CCSS as it relates to job functions, evaluation, and status on campus. Rich's lowest score was found in Stage 3-Management which is an indication that the participant does not have enough knowledge about the CCSS to understand the level of management required for adopting and consistently using the standards in practice.

Rich's November post study responses created an almost identical profile to that of his September scores with a lower Stage 0 percentile score, higher Stage 1 and 2 percentile scores, a dramatic dip in the Stage 3 percentile score, and finally higher Stage 4, 5, and 6 percentile scores. The differences in the pre and post study scores come from an increased intensity in all Stages except Stage 0. The greatest increase in intensity of concern is found in Stage 3-Management from a 27 percentile score in September to a 65

percentile score in November. Although Stage 3 percentile scores are the lowest in September, and the second lowest in November, he had the greatest gain in concern in this Stage which infers a better understanding of the complexity of the adoption and thus a greater concern regarding the management of the adoption.

Darrin. Darrin is a technology exploratory teacher and he is in his second year of a district wide systems approach to continuous improvement adoption, the first year of a district wide teacher evaluation adoption, and the first year of campus wide positive behavior intervention system adoption. Figure 16 illustrates Darrin's results on both the pre and post Stages of Concern Questionnaire.



	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Sept.	96	72	55	69	24	48	65
Nov.	94	72	57	34	19	72	30

Figure 16. Darrin's Stages of Concern Questionnaire results.

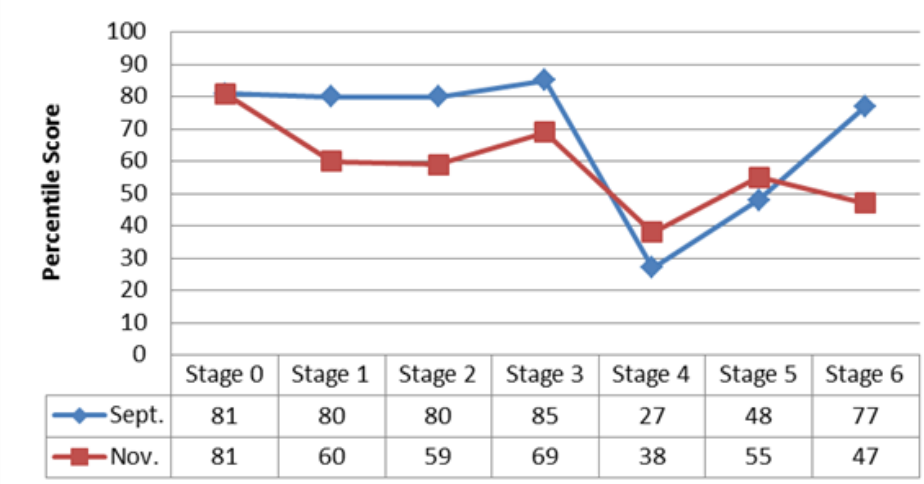
Darrin's September peak percentile score was a 96 in Stage 0-Informational. His second highest percentile score was a 72 in the adjacent Stage 1-Personal. Darrin's concern profile is reminiscent of a nonuser profile with the exception of a high percentile score in Stage 3 of 69. This suggests a high concern regarding the logistics of the

adoption of CCSS even though there may be other innovations that garner more concern. Stage 1 has a higher percentile score than Stage 2 in a nonuser profile illustrating a positive one-two split which may demonstrate the respondent is open to learning more about the CCSS. However, Darrin's Stage 6 percentile score "tails up" almost in line with his Stage 3 percentile score. The "tailing up" of Stage 6 in a nonuser profile could suggest resistance towards full adoption of the innovation.

In November, Darrin's profile shifts at Stage 3. Stage 0, 1, and 2 percentile scores are virtually unchanged. There is a dramatic decrease of concern in Stage 3 from a 69 percentile score in September to a 34 percentile score in November and increased level of concern in Stage 5 from a 48 percentile score in September to a 72 percentile score in November. According to George et al. (2013) a high Stage 5 and a high Stage 1 implies the respondent is interested in learning from what others are doing, but less interested in leading collaborative efforts. Finally, Darrin's November Stage 6 percentile score "tails off" from a 65 percentile score in September to a 30 percentile score in November, which suggests that a respondent does not have conflicting ideas that would impede the adoption of CCSS.

Nick. Nick, a middle school math teacher, has been involved in adopting the new Common Core Math Standards for two years prior to the study. He considers himself an intermediate in the use of the standards, and because of his involvement with the AMP program he has received formal training in regards to the adoption of the CCSS. Additionally, he is in his second year of a district wide systems approach to continuous improvement adoption, the first year of a district wide teacher evaluation adoption, and

the first year of campus wide positive behavior intervention system adoption. Figure 17 illustrates Nick's results on both the pre and post Stages of Concern Questionnaire.



	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Sept.	81	80	80	85	27	48	77
Nov.	81	60	59	69	38	55	47

Figure 17. Nick's Stages of Concern Questionnaire results.

In September Nick's peak percentile score was in Stage 3-Management with adjacent high scores of 81 in Stage 0, 80 in Stage 1 and 80 in stage 2. Nick's high and low Stage percentile scores indicated a high concern with the management of the adoption of CCSS. According to George et al. (2013) a high percentile score for Stage 3 indicates management concerns regarding time, resources and logistics, or planning. This combined with a low percentile score for Stage 4 suggesting minimal concerns regarding the effects of the adoption on students also suggests a respondent is more concerned about lack of time to manage change initiatives than he is about the effects of the adoption of Common Core standards on the students. Additionally, high scores in Stages

1 and 2 imply personal concerns relating to the effects of the adoption on practice and job functions.

In comparing the September pre-study responses to the November post-study responses the curve pattern is very similar, with only slight variations in the intensity of concern in each stage. The greatest difference between the pre and post results can be found in Stage 6. In September, Nick scored a 77 percentile score for Stage 6 resulting in a "tailing-up" of the curve which is indicative of resistance to the innovation, especially when associated with a nonuser curve where the highest percentile scores are found in Stages 0, 1, and 2 and the lowest percentile scores are found in stages 4, 5, and 6. In November, however, Nick scored a 47 percentile score for Stage 6 which caused the curve to "tail off" indicating the respondent does not have competing ideas that would prevent him from adopting the innovation (George et al., 2013). Additionally, Nick's highest percentile score in November is an 81 in Stage 0 with his second highest percentile score of 69 in Stage 3. A high score in Stage 0 typically indicates the respondent has other initiatives or task they are more concerned with, or that they have a low degree of interest or engagement in the innovation. A high Stage 0 score requires additional information from the respondent to determine his relative intensity of concern regarding the adoption of CCSS.

In conclusion, the quantitative data analysis produced evidence that participants experienced minor shifts in their concerns relating to the adoption of CCSS and augmented the qualitative data, discussed further in Chapter 5, associated with the following Research Questions:

1. How does the instructional coach in three roles—coaching teams, coaching individuals, and acting as a boundary broker between networks—influence the adoption of Common Core standards among a veteran staff at an urban middle school?
2. How does an instructional coach impact social capital during a new curriculum standards adoption?

CHAPTER 5 - FINDINGS AND DISCUSSION

In defining the purpose of this study, Chapter 1 explained that teachers at Valley Middle School (VMS) were struggling in their adoption of Common Core standards. They had limited professional development support and appeared to be professionally autonomous. Additionally, my position as a middle school instructional coach was new to the campus, as well as the district, and therefore my role specific to VMS was fairly ambiguous. Based on the literature discussed in Chapter 2, I developed an instructional coaching model with three approaches: coaching individuals, coaching teams, and promoting networks, in an attempt to meet the needs of a veteran staff at the middle school level during a new curriculum standards adoption. Sam, the math coach, and I used the coaching model with five eighth grade teachers during a 12 week participatory action research study. Chapter 4 presented the results of the qualitative and quantitative data analysis relating to the investigation of how the instructional coaches' use of the model influenced the adoption of new curriculum standards and the coaches' impact on social capital during the adoption.

To inform the investigation, qualitative coding procedures were used to analyze participant reflections, team meeting videos, personal interviews, and coaches' reflections and field notes. Because this study is heavily weighted in qualitative data, I used the qualitative tradition of triangulation to increase the validity of my findings across multiple qualitative data sources. Greene (2007) states, "In qualitative methodological traditions, triangulation was a vehicle to develop a more coherent and comprehensive account or story of the phenomena being studied" (p. 43).

A scoring device was used to measure pre and post study participant Stages of Concern as a quantitative measure to augment the qualitative findings. Green, Caracelli, and Graham (1989) define this design, "In a complementarity mixed-method study, qualitative and quantitative methods are used to measure overlapping but also different facets of a phenomenon, yielding an enriched, elaborated understanding of the phenomenon"(p. 258). This chapter discusses the results of the analysis in relation to the theoretical framework and academic literature associated with the study.

The discussion begins with an overview of the assertions. Then the first section, A Three Pronged Approach to Instructional Coaching, presents a discussion of the results to answer Research Question 1: How does the instructional coach in three roles - coaching teams, coaching individuals, and acting as a boundary broker between teams and networks - influence the adoption of Common Core standards among a veteran staff at a middle school? The second section, Barriers to Adopting New Curriculum Standards, presents a discussion of the results to answer Research Question 2: What barriers inhibit the adoption of new curriculum standards? Finally, the third section, Impacting Social Capital, presents a discussion of the results to answer Research Question 3: How does an instructional coach impact social capital during a new curriculum standards adoption?

An Overview of Assertions

Figure 18 provides an overview of the 10 assertions made in the following sections. Additionally the figure identifies the relationship between the research questions and the data sources associated with each assertion.

Research Questions	Data Sources	Assertions
1. How does the instructional coach in three roles – coaching teams, coaching individuals, and acting as a boundary broker between teams and networks – influence the adoption of Common Core Standards among a veteran staff at a middle school?	*Qualitative* *Themes: 1,2,3,4,5 *Quantitative* Stages of Concern Questionnaire Profiles	*Coaching Teams* 1. Instructional coaches positively influenced teachers' adoption of Common Core standards by coaching within a community of practice. 2. Participants felt supported by their team mates and when they shared their experiences using Common Core literacy strategies they were more motivated to use them in their own classrooms. *Coaching Individuals* 3. In using a partnership coaching approach with individuals, instructional coaches positively influenced the participants' adoption of Common Core standards. 4. Instructional coaches supported the transfer of professional learning to authentic application. *Coach as Boundary Broker* 5. Instructional coaches positively influenced teachers' adoption of Common Core standards by exposing them to networking opportunities. 6. When participants shared their knowledge with other subgroups they also benefitted because they gained a deeper understanding of the concept by teaching it. 7. Outside networks benefitted the participants in the study. *Coaching Model* 8. Instructional coaches positively influenced the adoption of new curriculum standards among a veteran staff by offering a differentiated coaching approach based on the individual concerns and needs of the participants.
2. What barriers inhibit the adoption of new curriculum standards?	*Qualitative* *Themes: 6, 7 *Quantitative* Stages of Concern Questionnaire Profiles	9. Additional initiatives competed for participants' time therefore inhibiting their adoption of Common Core standards.
3. How does an instructional coach impact social capital during a new curriculum standards adoption?	*Qualitative* *Themes: 2, 4, 5 *Quantitative* Stages of Concern Questionnaire Profiles	10. Because of their influence on external and internal networks, instructional coaches increased the social capital at VMS during a new curriculum standards adoption.

Figure 18. Overview of assertions as they relate to the research questions.
*See Figure 5 for a description of the qualitative themes.

A Three-Pronged Approach to Instructional Coaching

Research Question 1: How does the instructional coach in three roles—coaching teams, coaching individuals, and acting as a boundary broker between teams and networks—influence the adoption of Common Core standards among a veteran staff at a middle school? The following sections discuss my findings in relation to the literature for each individual approach. I will then discuss how the instructional coach, using a combination of the three approaches, was able to influence teachers' adoption of new curriculum standards.

Coaching Teams

The analysis of coach reflections and field notes for individual and team sessions, team meeting videos, team meeting participant evaluations, and exit interviews, helped me triangulate the findings of my influence on the functionality of the team, as well as how a highly functioning team supported its members during a curriculum standards adoption. Additionally, the quantitative findings from the Stages of Concern Questionnaire pre and post profiles complemented the qualitative findings.

Assertion 1. Instructional coaches positively influence teachers' adoption of Common Core standards by coaching within a community of practice.

Data indicated that the teaming components introduced by the instructional coaches were helpful in maintaining purposeful and focused meetings. During the first few meetings the team assigned roles (collective responsibility), established a team purpose and set goals (shared vision), and created a team innovation configuration map (sustainable reification and reflection) to help them monitor their team functionality. All of these components were embedded in the team meeting agendas and addressed at the

beginning of each meeting. Darrin commented, "I liked how the meetings ran very smoothly…and that we were there for a common purpose. I felt the meetings were effective and we accomplished a lot" (Exit Interview, November, 2013). Evidence from the team meeting videos also show that participants took their team roles seriously and came to meetings prepared. Finally, the evidence from evaluations of meetings using the team innovation configuration map showed that participants felt their meetings gradually became more purposeful and focused. These findings align to the literature regarding effective teaming. Established norms and processes help members identify the needs of the group, and they can limit negative external distractions. Additionally, when effective teaming components are in place, groups often realize a strong sense of solidarity and purpose (Bryk & Schneider, 2002; Sandefur & Laumann, 1998).

Communities of Practice

Assertion 2. Participants felt supported by their team mates and when they shared their experiences using Common Core literacy strategies, they were more motivated to use them in their own classrooms.

My findings are supported by Wenger's (1998) social theory of learning based on the concepts of learning, meaning, and identity within a community of practice. Wenger's framework, "integrate(s) the components necessary to characterize social participation as a process of learning and of knowing" (p. 4). Sam and I encouraged individual team members to share their experiences using Common Core strategies and assessment development from their own practices. Because all members explored and used similar strategies, they were able to compare each other's practice and discuss better ways to approach the use of the strategies and assessment development in their own classrooms.

For example, Rich stated, “I think hearing from the other teachers [in this study] about what works and how they scaffold the lessons when using a new strategy really helped me [in my own use of the strategy]” (Exit Interview, December 4, 2013). This type of member participation was essential to developing a strong community of practice because learning occurred for the individual participant when they contributed to the community and engaged in the practices of the community. In addition, the team benefitted from the shared knowledge and experience of the group (Wenger, 1998) because it gave them a better understanding of what they might expect when practicing the strategy on their own.

One member, however, did not feel she benefitted personally from participating in a community of practice. Cindy believed the team meetings should have been spent in planning cross-curricular units and she did not feel supported in this endeavor. While Cindy appeared to be unhappy with the content of the meetings, my observations of the team videos indicate she did support her team members and shared her experiences with them during team meetings. Debbie shared in one of her session reflections, “It was good for me to hear that Cindy’s students struggled with [the new strategy] and that she went back to scaffold the lesson. When some of my students started doing the same thing, I knew what to do” (Personal Reflection, November 22, 2014). In this, Cindy may not have gained new knowledge or experience from participating in the group; however, she added to the shared knowledge and experience of the group.

Coaching Individuals

An analysis of personal reflections from individual coaching sessions, coach reflections and field notes, and exit interviews helped me triangulate my findings regarding individual coaching support. Additionally, the quantitative findings from the

Stages of Concern Questionnaire pre and post profiles complemented the qualitative findings.

Assertion 3. In using a partnership coaching approach with individuals, instructional coaches positively influenced the participants' adoption of Common Core standards.

The evidence from the data regarding the individual coaching approach supports coaching literature that claims reciprocal strategies such as mentoring through inquiry based discussions, encouraging reflective practices, and developing partnerships that encourage co-teaching and planning help individuals improve their practice (Jones & Vreeman, 2008; Kise, 2006; Knight, 2007; Lipton & Wellman, 2003). In an individual coaching session reflection, Cindy stated:

> You don't have your own agenda for me. My agenda is your agenda…When I bring something to you or I have a problem, you ask me a lot of questions that make me think very deeply about what I want to do. You ask questions like: What are your outcomes? What is driving you instruction? How does this align to Common Core? That is what I really need, somebody to ask me the questions that I don't think of myself, questions that push me to the next level (Personal Reflection, October 22, 2013).

Using inquiry based discussions in my coaching model helped participants think about the instructional decisions they were making and it also helped model reflective processes. Furthermore, participants agreed that developing a partnership with the coach helped improve their practice as well. Debbie stated, "It was great having you come in yesterday to help scaffold the activity with the students. It helped me, and the students seemed to really understand the concept" (Personal Reflection, November 22, 2013). Her reflection shows that she valued the co-teaching opportunities and that it not only helped her, but her students as well. Additionally, Rich commented:

> I have always tried to use [the social studies Common Core literacy standards] in my lessons, but I have never used them in assessments. Figuring out how to do that was too difficult on my own. Having the discussions during our coaching sessions helped me understand how to word my questions (Personal Reflection, October 24, 2013).

Rich's statement provides evidence that co-planning and collaboration with instructional coaches helped him work through a new and difficult task.

Assertion 4. Instructional coaches supported the transfer of professional learning to authentic application.

During the first campus wide professional development session, some of the participants in the study felt the training was too much, too fast. They were worried about using the strategy because they were not sure how to facilitate the use of the strategy in their classrooms. In supporting their professional learning through dialogue, modeling, and observation/feedback, participants felt more confident in practicing the strategies, Debbie commented:

> They presented a strategy in staff development but they go too fast and they throw too many things at us. You helped me clarify the use of the strategy and helped me see how I could use it in my classroom. It just made it more real for me (Personal Reflection, November 22, 2013).

My findings support Brown et al.'s (1989) claim that "knowing and doing [are] interlocked and inseparable" (p. 35), as well as the idea that we must shift our focus from teacher development to teacher learning by providing teachers with opportunities to participate in active learning through context and reflection (Garet et al., 2001).

Finally, as evidenced in the follow-up interviews, four of the five participants agreed that individual coaching sessions were instrumental in helping them adopt Common Core standards and implement rigorous literacy strategies. One participant

however felt he already had supports in place through his math professional learning community and that the individual sessions did not benefit him as much as they could benefit others (Nick, Exit Interview, December 2, 2013).

Acting as Boundary Broker Between Teams and Networks

The analysis of coach reflections and field notes for individual and team sessions, team meeting videos, and exit interviews helped me triangulate the findings of my ability to successfully identify and promote external networks. Additionally, the quantitative findings from the Stages of Concern Questionnaire pre and post profiles complemented the qualitative findings.

Assertion 5. Instructional coaches positively influenced teachers' adoption of Common Core standards by exposing them to networking opportunities.

Triangulation of the qualitative data indicated that the instructional coaches were helpful in encouraging participants to share their expertise and knowledge with other teachers outside their community of practice. Wenger (1998) defines boundary brokering as the "use of multi-membership to transfer some element of one practice into another" (p. 109). In our case, the instructional coaches were members of all content area teams, core teams, a student behavior intervention team, and a leadership team. Our "membership" in the various teams allowed us to maneuver resources and human capital to assist individual teachers and teams in adopting CCSS. The instructional coaches acting as brokers were able to create networks between the different teams in order to facilitate the flow of information. Wenger (1998) states, "The job of brokering is complex…It… requires the ability to link practices by facilitating transactions between

[communities], and to cause learning by introducing into a practice elements of another (p. 109). During his exit interview Nick stated:

> A lot of times, when it comes to mathematics, I'm very class-centered. I wonder how [a certain strategy] would work in my class with my students. Sam would always ask in our sessions how my knowledge [of some of the math practices we are using] would help teachers on campus, in the district, or even nationally – especially if we were to present what we learned in AMP at a national conference. (December 2, 2013)

Additionally, Debbie shared her networking experience:

> I was so excited about my compare and contrast activity that we set up together [referring to session with instructional coach] that I shared it with the teacher next door. I told him I tried the lesson and it was great and then I shared it with him. He liked it so he took it and tried it in his own class. (Exit Interview, December 5, 2013)

Further benefits of networking were identified when the instructional coaches helped participants begin to think about the adoption in more "global" terms. When they thought about how the adoption affects the environment outside their own classrooms, they were more open to sharing their knowledge and experiences with other teachers. My findings align to the literature regarding the benefits of networking to develop a more collaborative environment. Many studies found that social networking between subgroups is critical to developing collaboration within the broader organization (Frank & Zhao, 2005; Nee & Ingram, 1998; Penuel et al., 2006).

Assertion 6. When participants shared their knowledge with other subgroups they also benefitted because they gained a deeper understanding of the concept by teaching it.

In several instances I found that reciprocal teaching helped participants work through some of the ambiguity associated with using new content literacy standards. For example, Rich stated:

> I think at our last [content area team] meeting I definitely felt useful in helping some of the teachers who aren't as further along in the CCSS adoption as I am, understand them better and how to use them in a test. I think they have the Common Core Standards. They just didn't know how to put them into a test. I also think sharing my experience was really helpful for me because anytime you teach something you learn it better. (Exit Interview, December 4, 2013)

These findings also support the literature in that when subgroups interact, members often develop strong professional and social relationships with each other. These relationships help members to develop stronger practices within their own environment (Coldren & Spillane, 2007).

Assertion 7. Outside networks benefitted the participants in the study.

District trainer of teachers sessions for English language arts Common Core standards and national conferences such as the National Council of Teachers of Math, helped enrich participants understanding of the new curriculum standards and they were able to share their new knowledge and understanding with their core teams and their content teams. Cindy and Nick contributed their new learning from outside sources throughout the study, and while Cindy's learning provided the team with active strategies, Nick's new learning gave him the confidence to begin sharing pedagogical implications relating to student centered classrooms and tiered assessments. These findings also support the literature that while one's own subgroup can have great influence on their professional growth, it is also imperative that individuals have access to resources and competencies from outside their subgroup or school (Leana & Pil, 2006; Penuel et al., 2006).

The Coaching Model

Assertion 8. Instructional coaches positively influenced the adoption of new curriculum standards among a veteran staff by offering a differentiated coaching approach based on the individual concerns and needs of the participants.

As discussed in the previous sections, all five participants felt they benefited from structured and purposeful meetings, they all felt the instructional coach was able to further their understanding and use of Common Core State Standards (CCSS) during planning, instruction, and/or assessment development, and they all claimed they benefitted from internal and external networks identified by the coaches. However, the evidence indicated that every participant preferred one coaching approach over the other two and their preference related to their Stage of Concern. Additionally, as their concerns resolved in one stage and emerged in another, their interest in the other two approaches increased. These findings emerged because of the complementarity nature of the quantitative and qualitative data.

After reviewing the pre study participant Stages of Concern (SoC) profiles, coding evidence began to emerge in the qualitative data that supported the profile results. This data helped me determine how best to support each of the participants in the study during their individual coaching sessions. I wrote memos during the coding process to track any shifts in the participants concerns that were noticeable in their reflections, team meetings, and exit interviews. The memos where then compared to the participants' post study Stages of Concern profiles to see if the results were similar. The following section discusses the impact of a differentiated approach to coaching on each participant.

Cindy. Cindy's September Stages of Concern (SoC) profile illustrated high personal and management concerns. These concerns were also evident in the qualitative data, "As public educators, if we can't produce, they are going to take away more and more until we don't really exist anymore" (Cindy, Personal Reflection, September 19, 2013). Because Cindy's concerns focused on how she would manage the adoption and how the adoption would affect her finances and/or status on campus, and because she was very concerned about working with others, as indicated by a high level of concern in Stage 5, the majority of the coaching support I gave her came from individual sessions. This was also her preferred approach at the conclusion of the study.

> I would say, as an individual you had the biggest impact [on my adoption]. I absolutely loved working with you and I'm looking forward to continuing to work with you. I feel that I've learned a lot and my students have benefited greatly from your expertise, and I feel real confident sending them off to the high school to encounter common core for really high stakes. (Follow-up Interview, January 14, 2014)

Cindy's post study questionnaire results showed that she was less concerned about adopting the standards after the study than she was prior to the study. One of the reasons for the drop in concern was that Cindy gained confidence in her use of the new standards because of her success with the individual coaching sessions. "You made this adoption a whole lot simpler, much easier, and much less painful. I see is as an exciting challenge now; it's like a game, and I'm going to win…I can do this" (Cindy, Exit Interview, December 2, 2013). Another reason for the resolution of concerns in Stage 1 was that Cindy was overwhelmed with the testing initiatives from the district that caused her concern level to increase in Stage 4-the evaluation of student outcomes**.** However, while Cindy's success in using the standards enabled her to increase her concerns

regarding student outcomes, the increased pressure associated with the district assessments contributed to even higher concern levels in her personal and management stages.

Finally, Cindy's concern in Stage 5-Collaboration diminished during the study. This indicates she is less concerned about working with others in adopting the CCSS and that she is more willing to collaborate with others to help adopt the standards. While Cindy appeared to be unhappy with the content of the meetings, my observations of the team videos indicate she supported her team members and shared her experiences with them during team meetings. She also began networking with other teachers on campus:

> She was excited the teacher was asking her questions about literacy and writing, and I encouraged her to nurture the peer to peer relationship. She stated that she liked that the teacher was talking to her about literacy because that told her that he respected her and that he was thinking about literacy in his content area. (JoAnn, Field Notes, September 12, 2013)

The encouragement from the coaches to network and her success in sharing with her team members helped her gain the confidence she needed to share her knowledge and experiences with others.

Debbie. Debbie came into the study with limited knowledge of the Common Core literacy standards associated with her content area. Her September SoC profile correctly identified her as a nonuser (George et al., 2013, p. 38). A nonuser profile is identified when the three highest percentile scores are in Stages 0, 1, and 2 and the lowest in Stages 4, 5, and 6. Additionally, her profile showed a "positive one-two split" (p. 40) because of a higher concern level in Stage 1 than in Stage 2 which indicated she was interested in learning more about the standards. The qualitative data supported her pre-study SoC profile:

> I did a couple of close reads last year, maybe three, but then coming up with authentic things for them to do with the information from the close reads is hard…Now, this year the students are acting like they have never done a close read before, so I have slowed down. I haven't used any articles, but that's because we are doing chemistry. (Debbie, Personal Reflection, September 25, 2013)

Debbie's reflection supports the nonuser profile because it is clear she still separates the CCSS content literacy standards from her content standards. Because Debbie was new to the CCSS and because she had high concerns regarding information and personal demands, I did not push individual coaching sessions with her. Instead, I gave her resources and information to help her learn more about the standards. I also dropped by her classroom often to offer her my support. Throughout the first six weeks of the study, Debbie indicated she was very busy and that it was hard for her to meet with me. She cancelled our first scheduled session in late September because she was feeling overwhelmed. Finally, I encouraged Cindy to share her successes using CCSS strategies during our core team meetings in hopes that it would motivate Debbie to begin trying some of the strategies. The combination of internal networking, resource sharing, and external networking (campus wide professional development), inspired Debbie to begin working with me to practice and refine the strategies she learned during the professional development sessions.

> When we all talk about or share a strategy in our core team meetings, I become more interested in using it. Sometimes at staff development we learn about it, but that goes really fast. You made me feel comfortable about practicing it, you met with me during prep or after school, whenever I needed to meet, and then just going over the lesson helped me. I think you helped me the most [transfer] what I learned in professional development and from our core teams to my own teaching practice. (Follow-up Interviews, January 14, 2014)

After Debbie experienced success in using the CCSS literacy strategies and she contributed her success to working with an instructional coach we met more often. Her post study SoC profile shows that she was able to resolve many of her concerns in Stages 1, 2, and 3, and that she was less concerned about the adoption. I also noted in my observations and individual sessions with her that she exhibited an increased understanding of her CCSS content literacy standards.

While Debbie indicated that the individual coaching sessions helped her the most. It was the networking and team discussions that motivated her to work with the coach.

Rich. Rich's September SoC profile indicated he had high levels of concern in all of the stages except the management stage. Because this is Rich's first year of teaching, I expected him to have higher concern levels within the stages than his co-workers. I approached my coaching sessions with him as opportunities to share information and knowledge about the CCSS. I also knew that Rich's content area mentor was interested in developing a professional learning community with the social studies team to focus on developing common units and tiered assessments using CCSS. The teams, both his content area team and his core team, helped him gather more information about the standards and gave him the confidence to start using some of his new knowledge. Rich soon began trying to develop tiered assessments to share with his social studies team and he sought Sam and me out to ask for individual support:

> I feel like being part of a team was really important because we were able to compare our experiences to see what worked for some people or didn't work for others. You get to see how it works in a different content area, like between social studies, math, and science. The team members all bring a different perspective with them, so the team model I think worked very well. Then the individual coaching helped afterwards because I got to bounce ideas back and forth and we

> came up with ideas and strategies….When I worked with you and Steve, it definitely helped, and everybody in our content team got better at creating and using tiered assessments. (Follow-up Interview, January 16th, 2014)

Rich found value in the individual coaching sessions but it was the support of his content area team and the core team that made him confident enough to begin planning units and assessments using the CCSS content literacy standards. Rich's post SoC profile looked very similar to his pre SOC profile except that he had higher levels of concern in every Stage except Stage 1-Unconcerned. Again, as a new teacher he was inundated with information, procedures, processes, and responsibilities; therefore his profiles seem to be in line with his situation. His increase in concern for the adoption also indicated he was feeling better about his understanding of the standards. This is substantiated by the qualitative data, "My understanding of the Common Core has grown…significantly. The Common Core drives my lessons now instead of [being just an afterthought]" (Rich, Personal Reflection, November 4, 2013).

Encouraging Rich to initially work with his content area teams and providing him with opportunities and time to explore the standards through dialog with others gave Rich the support and motivation to begin working with coaches on embedding the content area CCSS literacy standards in tiered assessments. And because the assessments were designed first, Rich soon realized that he would have to align his instruction to the assessments which meant he would have to teach his content using the Content CCSS literacy standards.

Darrin. Darrin's pre study Stages of Concern Questionnaire (SoCQ) results illustrated a nonuser profile with a high stage 3 indicating a specific concern for CCSS among the other initiatives demanding his attention. His positive one-two split where the

Stage 1 percentile score is higher than the Stage 2 percentile score indicated he was open to learning how he could implement CCSS in his exploratory classes. During our initial individual coaching sessions, Darrin was unsure how the CCSS related to his technology curriculum. I suggested we begin exploring the writing standards because they had embedded digital literacy requirements within the performance objectives. Our session outcomes resulted in the development of a crosswalk between the NETS (National Education Technology Standards) and the CCSS digital literacy requirements found in the writing standards.

Once we were able to develop an understanding of the gaps in instruction that would need to be addressed to help prepare students for the technology requirements of the new standards, Darrin turned to his team to learn about how they implemented CCSS in their classrooms. I also encouraged him to share his crosswalk with his team, as well as to use his own professional learning networks such as his International Society of Technology in Education resources and membership to help him enhance is lessons to include any missing CCSS digital literacy components. Throughout this process Darrin began to consider how his expertise could help other teachers feel more comfortable using technology in their own instruction, "I think I can help teachers understand how to bring technology into their curriculum, and how they can go about it in their classrooms" (Personal Reflection, November 26, 2013).

Darrin's post questionnaire results complemented the qualitative data above in that it reflects a resolution of concerns in Stages 3-management 4-consequence and emerging concerns in Stage 5-collaboration. Additionally, his high percentile score in Stage 5 and in Stage 1 indicates he has an increased desire to learn about the adoption

through both internal and external networking, but that he is not interested in leading the collaborative efforts. When I asked Darrin his thoughts regarding the effectiveness of the coaching model he replied:

> I think the whole model that you had put together really worked. I think if it was just you working with me, it would not have been as beneficial for me. I think the team was the best for me because I was able to get ideas from other people and observe other people. Working one-on-one with the coach helped me create a crosswalk and also the networking and communicating helped. I think all three are needed, really. (Follow-up Interview, January 15, 2014)

In Darrin's situation, all three approaches helped him to gain a better understanding of the CCSS and to begin formulating ideas as to how to enhance his instruction to include the wider range of technology requirements associated with the new standards. Furthermore, as he learned how he would implement this new knowledge in his own practice, he realized he could help others implement technology in their instruction as well.

Nick. Nick's pre and post responses on the SoCQ illustrated a classic nonuser profile. However, when I asked Nick to clarify his results on the pre questionnaire, he stated that because of his involvement in the Arizona Math Partnership (AMP), he has had two years of extensive math Common Core training, and he and his math team continues to work collaboratively to design common units and common tiered assessments. Nick confirmed he was unconcerned about the adoption of the Common Core standards because he was already using them extensively. He also stated that his biggest concerns were keeping up with the many changes at both the campus level and the district level. His response supported his high level of concern results in Stage 3.

In their earlier sessions, Sam was concerned that Nick did not want to work with an individual coach. Sam reflected, "As soon as I walked into the room he asked me how long the session was going to take. I felt that he thought it was an inconvenience (Field Notes, September 19, 2013). A month later, I wrote, "Trying to find time has been difficult and the participant does not seek the coach out in any way" (Field Notes, October 21, 2013). However, at the beginning of November Sam and Nick attended the National Council of Teachers of Math conference. Nick seemed to be rejuvenated and excited about sharing his expertise. Sam wrote:

> Nick said he would be willing to present/share some of what Valley Middle School is doing at a future conference. He sees his role as moving from learning to sharing and that he feels his experiences over the past year and a half would enable him to answer questions more comfortably [in a setting of his peers]. (Field Notes, November 6, 2013)

With this new awareness, Sam and I decided to encourage Nick to continue to use and contribute to the networks that motivated him.

> Nick feels that we tend to become isolated in our classrooms or on our campus, so this conference helped broaden his awareness of the math community. A presentation on the use of an online math program helped reinforce the idea of creating deep/ rich tasks for students and it piqued his interest in looking at other lessons. (Sam, Field Notes, November 6, 2013)

We also encouraged Nick to share his expertise with other content area teachers. At first he was hesitant to share because he didn't see how his math practices could transfer to other content areas, however as he reflected he began to understand that the pedagogy he uses in his math practice, such as creating a student centered learning environment, could easily be used in all content areas. Nick's shift in focus from his personal concerns to his desire to share with others is further supported in his November

post study SoCQ results. The November profile showed that Nick resolved some of his task concerns from Stage 3-management regarding time and resources which allowed for higher levels of concern to develop in the impact Stages 4-consequences and 5-collaboration. Finally, the video evidence from the last few core meetings shows an increase in the amount of times Nick shared and advised the group regarding instruction and assessment. In his follow-up interview, Nick stated:

> I felt that my instructional coach helped me to think outside of my comfort zone in the areas of networking and teaming more so than [with] individual [support]. I felt that was the area that probably helped the least amount because I think coming in…I knew what I was doing. I knew in what direction I was going. I think if the instructional coach hadn't focused on team and networking as well as the individual, I don't think it would've been as effective for me. I don't think I would've gotten as much out of it. (Follow-up Interview, January 14, 2014)

The participants' stories illustrates the necessity of providing a differentiated approach to coaching that supports the various needs of the individuals during a change initiative. While George et al. (2013) state, "Although personalized interventions can facilitate change, in the end individuals determine for themselves whether or not change will occur" (p. 9); in offering differentiated support, a coach will be better equipped to help more teachers.

Furthermore, the success of this "differentiated" coaching approach supports Bridges' (n.d) contention that change is personal and that when leaders can manage and support the psychological processes of the people expected to change they will more likely experience success in implementing the initiative. Bernerth, Walker, and Harris (2011) also found that, "Taking 'the pulse' of employees in an organization that is planning or undergoing change, before the onset of negative stress reactions, appears to

be vital" (p. 335). In supporting each of the participants with a combination of teaming, independent support, and networking, the coaches provided the teachers with opportunities to practice, experience success, and share their successes. In this manner, participants developed confidence in the use of CCSS and were motivated to continue adopting the standards at a deeper level. Additionally, my findings support the Hall and Hord (2001) Concerns-Based Adoption Model principles in that change is best facilitated through team efforts and that individuals must change first if the organization is to change. In four of the five participants, as the individuals began to experience success and confidence in their own practice, their willingness to share and support others through the adoption grew as well.

Barriers to Adopting New Curriculum Standards

Research Question 2: What barriers inhibit the adoption of new curriculum standards?

The analysis of coach reflections and field notes for individual and team sessions, personal reflections, team meeting videos, and exit interviews, helped me triangulate my findings regarding possible barriers to adopting CCSS at Valley Middle School (VMS). Additionally, the quantitative findings from the Stages of Concern Questionnaire pre and post profiles complemented the qualitative findings.

Assertion 9. Additional initiatives competed for participants' time, therefore inhibiting their adoption of Common Core standards.

In order to understand the implications of this assertion, I researched the impact of initiative overload on change facilitation. According to Abrahamson (2004), "Excessive change leads to repetitive change syndrome in otherwise stellar employees" (p. 94). The

first symptom of repetitive change syndrome is that of initiative overload. This occurs when an organization requires employees to adopt more initiatives than can be reasonably handled. Huy (2001) found that change initiatives are less likely to be successful if the employees perceive the rate of change to be too frequent. Evidence from field notes illustrated initiative overload:

> This month alone we have had to review the new PARRC predictive assessments that are not aligned to a scope and sequence. We learned that our students will be taking several computerized tests this year, we learned a new evaluation system which many teachers still do not understand, and the teachers are trying to get to know their new core teams. These influences tend to pull all of us off track in our adoption of CCSS. (September 30, 2013)

Currently VMS has a number of initiatives that compete for our teachers' attention. During our sessions with individual teachers and team meetings, Sam and I also observed on several occasions that teachers felt overwhelmed in regards to the different initiatives they were required to adopt this year.

The second symptom of repetitive change syndrome Abrahamson (2004) identifies is that of change related chaos. This occurs when employees are hit with a flood of initiatives with limited time allotted for support, and there is confusion as to why they are being asked to adopt the initiatives and how to adopt the initiatives. Additionally, when an organization experiences continual change, employees often feel confused as to the extent of the change initiatives and the expectations of the leaders (Rafferty & Griffin, 2006). Evidence of this symptom specific to time was reflected in my field notes:

> During our core meeting, the counselor needed to talk about open General Education Intervention Team (GEIT) requests that needed to be processed and reviewed. We also had to discuss a new district requirement for report cards. These two activities consumed the majority of our meeting time. (October 9, 2013).

I found further evidence of change related chaos when participants cancelled individual coaching sessions because they felt "buried under a ton of work" (Sam, Field Notes, September 25, 2013) or because they needed help with the new teacher evaluation initiative or the new district common assessment requirements. The additional initiative caused stress among the participants and subsequently they either cancelled their sessions with the coach or redirected the focus from CCSS to another more current initiative.

Finally, the third symptom is that of employee burnout which is often expressed as cynicism (Abrahamson, 2004). Change cynicism among employees, "…often combines pessimism about the likelihood of successful change with the blame of those responsible for change as incompetent, lazy, or both" (Riechers, Wanous, & Austin, 1997, p. 48). Cindy provided evidence of this type of cynicism in her use of a simile to describe her frustration with the new initiatives from the district, "It's almost like war. We are in a nation [organization] of divided factions, but we [the teachers at VMS] are pulling together to fight a common foe, which is the district and all of the things they are throwing at us" (Personal Reflection, October 22, 2013).

Additionally, Hall and Hord (2011) discuss the importance of an organization to understand that change requires learning:

> Professional learning is a critical component embedded in the change process. Research focused on change process and on professional development reveals parallel finding, both of which identify the imperative of learning in order to use improved programs, processes, and practices (p. 7).

Therefore, in order to facilitate change, teachers must be given the time to learn the initiative, or in our case, to learn about the Common Core standards and how to use them in their teaching practices. Evidence indicated some of our participants felt they were not

given enough time to practice the strategies they learned in professional development sessions. Debbie reflected that, “There is never enough time, when you learn something new, to really learn how to apply it to your subject area” (Personal Reflection, November 22, 2013).

In conclusion, Abrahamson (2004) warns that repetitive change syndrome can harm an organizations ability to facilitate change because, “For every change initiative added, another one slows down or disappears” (p. 94). Additionally, Rafferty and Griffin (2006) found that employees are better able to manage their emotions regarding change when they can identify the change as a discrete event with a beginning and an end. With so many changes occurring on campus, teachers are unable to feel a sense of accomplishment because they have no closure to the change event. They start a new change initiative and focus on adopting the change until another initiative is mandated that shifts their focus away from the initial change. Because of this type of cycle, teachers are unable to see any change as a discrete event. While the Common Core State Standards adoption is too complex to bind to a time frame, our divided time among the additional initiatives at VMS has inhibited our standards adoption.

Impacting Social Capital

Research Question 3: How does an instructional coach impact social capital during a new curriculum standards adoption?

The analysis of coach reflections and field notes for individual and team sessions, personal reflections, team meeting videos, and exit interviews helped me triangulate my qualitative findings regarding social capital. Additionally, the quantitative findings from

the Stages of Concern Questionnaire pre and post profiles complemented the qualitative findings.

Assertion 10. Because of their influence on external and internal networks, instructional coaches increased the social capital at VMS during a new curriculum standards adoption.

As mentioned in Chapter 2, social capital is defined by the internal and external relationships inherent in individuals facilitating change or action within a social system (Leana & Pil, 2006). Social Capital Theory (Coleman, 1988) and Social Development Theory (Vygotsky, 1978), that posit individuals can learn and change based on their relationships among and between stakeholders, are the theoretical foundations for this definition of social capital. The internal social capital is a reflection of relationships among members of a community while external social capital reflects relationships between communities.

Internal Social Capital

Nahapiet and Ghoshal (1998) identified the three aspects of internal social capital as structural, relational, and cognitive. The structural component relates to the context of the members and the frequency of sharing information. At my request the participants in the study core team agreed to meet twice as much as the other core teams on campus. At the end of the study the participants were asked if they wanted to revert back to meeting once a month or continue with the bi-monthly schedule, four of the five participants voted to continue meeting twice a month. All of the participants agreed that the frequency in which we met as a team increased their knowledge of CCSS and allowed them to also discuss the intervention needs of their student population and to facilitate the

management of other initiatives through shared discussion and collaborative efforts. For example, during one meeting we took time to review and discuss the new campus response to intervention of student behavior process map and expected student behavior charts. Because we had another meeting that month, we were able to dedicate the entire meeting to reviewing a flipbook resource that allowed us to quickly view Common Core standards for Math, English language arts, and literacy for science, social studies, and technical classes. The resource also provided examples for use of all Depth of Knowledge levels.

The relational component describes the history and trust associated with highly effective collaborative relationships among members of a community. These teams have the ability to conduct discussions that honestly reflect their present practices, to identify what changes need to occur in the best interest of students, and to develop a shared culture of interdependency that uses the talents of every member within the group (Borko et al., 2000; Kise, 2006). At the conclusion of the study, the core team had become proficient at sharing their new knowledge and experiences with the members in their community. Participants felt safe in sharing their struggles and also in celebrating their successes. Additionally, they collectively agreed to practice one strategy and share their use of the strategy with their team mates. They also worked together to develop an intervention log to help track student interventions in order to facilitate the General Education Intervention Team (GEIT) process. However, due to the limited time frame of the study and the varying levels of adoption among the team, they had yet to develop processes of collaboration for cross curricular units. Cindy reflected, "I was hoping that this was going to create some cross-curricular connections, but it hasn't done that. I'm

really frustrated" (Exit Interview, December 2, 2013). While the team meetings have yet to progress to a highly effective collaborative environment, the participants have developed trust and are working individually to obtain a deeper understanding of CCSS so that eventually they can collaboratively plan cross-curricular units.

Finally, the cognitive component of internal social capital refers to a community's shared vision and collective responsibility. As noted in the earlier sections regarding team functionality, members of the core team in this study assigned roles, established a team purpose, developed goals based on student achievement data and teachers' needs assessments, and created an team innovation configuration map to monitor the team effectiveness (see Figure 4 in Chapter 4).

It is evident throughout the "Coaching Teams" discussion earlier in this chapter and the evidence presented in this discussion that instructional coaches helped increase the internal social capital at VMS by assisting team efforts to focus discussions, stepping in as the expert when necessary, and helping the team establish group norms.

External Social Capital

External social capital is also necessary in that it helps facilitate the flow of new information and resources needed to enhance the productivity of a team or community (Hansen, 1999). As with the discussion of internal networking, much of the evidence and literature regarding external networking was already discussed in the earlier section "Acting as Boundary Broker between Teams and Networks." However, I will extend the discussion here to include the concept of information flow and sustainability.

Diverse information made available throughout a broad range of contacts provides groups with resources and knowledge needed to meet the demands of adopting a change

initiative (Granovetter, 1973). As is supported by the literature that claims instructional coaches are best positioned to facilitate the flow of information and resources among subgroups with a school (Neufeld & Roper, 2003), Sam and I were able to strengthen and promote the potential external networks throughout VMS and the district. Because of our membership in many teams, we were able to identify needed expertise and resources and connect them to individuals or teams needing that support. For example, Rich asked if I would help him develop a tiered assessment using Common Core social studies literacy standards. I knew from my interactions with Sam and the math team that they would be a good resource for Rich and I to explore because they had been creating common tiered assessments for two years as a team. We asked Sam to help us through the process and asked other members of the math team to provide us with feedback. Because the final product was well developed, Rich's mentor asked Sam and I to help facilitate the social studies work day that focused on creating common tiered assessments for seventh and eighth grade units. Due to our position on campus, Sam and I were able to facilitate the exchange of pedagogical information between the core team, the math team, and the social studies team.

In regards to the sustainability and individual motivation to continue networking, as the social studies team experienced success with their common planning sessions, members of that team began to extend their external networks to include on-line professional networking sites such as Discovery Education. Additionally, Cindy brought tiered assessment examples from both the math content teams and social studies content teams to their third quarter English language arts team full workday to present how the assessments are planned. Finally, Darrin requested permission to attend two professional

seminar sessions, one for Excel and another for middle school iPad apps, to better support the technology requirements found within the Common Core standards.

In conclusion, Uekawa et al. (2006) found that the level of social capital developed on a campus depended on the context of the school reform focus. The more school reform focused on a collective change with some governance involved, the greater the opportunity for social capital to develop. The evidence and discussion presented throughout Chapter 5 supports the assertion that instructional coaches increased the social capital at VMS by supporting internal and external networks in an effort to create a collective focus on adopting the CCSS campus wide.

CHAPTER 6 – CONCLUSION

Chapter 6 concludes this dissertation with a discussion of my participatory action research study. The first section, Informed Practice, explains how the study helped to expand my understanding of an instructional coaches' role at VMS beyond my previous knowledge. The second section is dedicated to the credibility and limitations of the study. The third section, Continuous Improvement, addresses possible revisions to the design of the study and recommendations for future action research cycles. Finally, the last section, Personal Reflection, reflects my learning in regards to research and leadership.

Informed Practice

A Differentiated Approach

While researching the various professional coaching models in an attempt to establish a coaching framework that would best fit the veteran culture at Valley Middle School (VMS), I found several studies and books promoting specific coaching models. For example, Costa and Garmston (2002) believe in their Cognitive Coaching theory, "A change in perception and thought is prerequisite to a change in behavior" (p. 7). They also embrace a constructivist approach in which people construct meaning by reflecting on experiences and dialoguing with others. Additional coaching models include Executive Coaching (Goldsmith, Lyons, & Freas, 2000), Co-active Coaching (Whitworth, Kimsey-House, Kimsey-House, & Sandahl, 1998), and Instructional Coaching: A Partnership Approach (Knight, 2007) which was developed using several human interaction principles. All of the above coaching models espouse the importance of building trusting relationships and they support the idea that coaches must be what Vygotsky (1978) terms as the "more knowledgeable other" in the sense that they are

responsible for providing professional learning opportunities and support to teachers seeking to improve their practice. Additionally, they all support reflective dialogue, open communication, and some process of modeling, observation, and feedback. Throughout the study, I found evidence that supported each of these models and coaching concepts, which enabled me to extend my understanding of the role of a coach as well.

While Knight (2007) explains that teachers must have a voice and choice in a partnership approach, Kise's (2006) differentiated coaching approach clearly recognizes the importance of responding to the differences in adults. Her research on helping teachers change most closely identifies with my findings, and while her approach includes managing stress levels and conflicts to help facilitate change, my findings showed that by identifying teachers' concern levels associated with a specific initiative, I was better prepared to offer authentic individualized support.

It is important to note that during the development of this study I understood at a basic conceptual level the need for teachers to have a variety of supports in place during change initiatives, especially a large initiative such as a new curriculum standards adoption. This understanding led me to research theoretical frameworks such as Communities of Practice (Wenger, 1998), Situated Learning (Lave & Wenger, 1993), and Social Capital Theory (Coleman, 1988; Leana & Pil, 2006).

While these frameworks helped inform this study, implementing the three pronged approach coaching model supported with data from Stages of Concern profiles furthered my understanding of an instructional coaches' role at the middle school level during a time of intense change. Knowing a teacher's Stage of Concern for a particular change initiative allowed me to develop individualized and differentiated approaches to

coaching. Because the approach for each individual was tailored to meet their needs, their understanding and use of the Common Core standards increased significantly within the 12 week study. For example, at the beginning of the study Rich needed support in developing tiered assessments as part of his membership with his social studies team. Even though his knowledge and understanding of Common Core content literacy standards was minimal, Sam and I were able to support his learning by co-constructing the assessment together.

The activity helped develop Rich's understanding of Depth of Knowledge tasks, and enriched my understanding of tiered assessments as well. The confidence Rich gained from the activity enabled him to share his new knowledge and experience with his social studies team. Their enthusiasm for tiered common assessments motivated the content area team to plan full work days to collaboratively construct common social studies tiered assessments and units. As Rich began to collaborate more and more with his social studies team, he no longer sought out individual support but instead asked for coaching support for his social studies team. Because Sam and I understood Rich's Stages of Concern levels, we knew he had the potential to flourish in a team environment as they collectively explored the use of content area Common Core literacy standards together.

In offering Rich various combinations of support we were able to positively influence his adoption of the new standards. Because of these successes, I have a broader understanding of an instructional coaches' role in supporting change by offering not a three pronged approach to coaching but an individualized approach that offers a combination of support based on a teachers' current adoption concerns.

Networking

The findings regarding the promotion of networks also informed my role as an instructional coach. During the process of connecting individuals to other campus teams, on-line resources, peers, and off-campus training and seminars, I realized we had a wealth of untapped expertise and knowledge lying dormant on our campus. Most of our teachers are members of at least two teams (core and content area teams) on campus as well as members of teams or professional content associations, such as National Council of Teachers of Math, off-campus.

While the teams worked well within their own community of practice they did not share or exchange knowledge between teams; essentially there were no boundary brokers (Wenger, 1978) at VMS. The learning and resources developed in each team, stayed within the boundaries and membership of that team. I connected this finding with my earlier action research cycle findings regarding the autonomy of the middle school teachers at VMS. Even though teachers began to work in teams to produce common units and assessments, they were still isolating themselves based on their content area. It took the perspective of a newcomer, me, to identify this pattern and begin brokering information and resources between teams. This was accomplished fairly easily because of my multi-memberships among the teams.

After a few months of identifying and promoting the existing networks, evidence indicated that teachers started sharing and collaborating among various teams outside my brokering. I realized that it was not the lack of willingness to network among teachers and teams as much as it was a narrowed focus on specific content that kept teachers from networking. For example, Nick commented several times that he felt he did not have

anything to contribute to our core team as far as enrichment or understanding of Common Core because he taught math and the other teachers focused on literacy. However, when Sam and I encouraged Nick to think about his pedagogical shifts from teacher centric instruction to student centered learning and his experience with developing tiered assessments, he realized that he could contribute just as much to the reification of his core team as he was contributing to his content team and that those shared resources and knowledge contributed to the progress of a campus wide curriculum standards adoption.

While I understood the benefits of increasing social capital through networking, the findings in this study helped extend my understanding of network functions and the critical role a boundary broker plays in the promotion of internal and external networks.

Validity and Limitations

Validity

In some academic circles participatory action research (PAR) studies are accepted more for generating practical knowledge than for formal knowledge, in part due to the insider-outsider positionalilty of the researcher/practitioner which positivistic researchers believe limits the researcher's access to truth (Herr & Anderson, 2005; Corbin & Strauss, 2008). However, Herr and Anderson (2005) argue that PAR allows for a combination of knowledge generated by authentic experience within the phenomenon being studied and the privileged access to truth as an outsider. In addition, Reason and Bradbury (2001) discuss the importance of action research as an "emergent, evolutionary and educational process of engaging with self, persons and communities that needs to be sustained for a significant period of time" (p. 12). Within this frame, validity centers on issues dealing with the consequences and the sustainability of the research. Finally, Corbin and Strauss

(2008) replace the term "validity" in action research in favor of "credibility." Their belief is that the term "credibility" is a better fit for qualitative data and that the term, "indicates that findings are trustworthy and believable in that they reflect participants', researchers', and readers' experiences with a phenomenon. But at the same time the explanation is only one of many possible 'plausible' interpretations possible from data" (p. 302).

To assist in reflecting on the credibility of the participatory action research in this dissertation, the study is discussed in regards to the widely cited validity criteria created by Herr and Anderson (2005). These criteria are used because they also overlap with some of the "worldview" action research criteria developed by Reason and Bradbury (2001) as well as general components of credibility discussed in Corbin and Strauss' (2008) discussion regarding qualitative research credibility.

Outcome validity is "the extent to which actions occur, which leads to a resolution of the problem that led to the study" (Herr & Anderson, 2005, p. 54). A resolution is not always a successful outcome to the problem presented in the study, but can also be the process of using information from one cycle of research to inform a new cycle of research. This PAR study identified the benefits of a differentiated coaching approach and generated information regarding the need to explore teaming options to further inform the development and sustainability of social capital at VMS, and therefore meets the criteria of outcome validity.

Process validity measures "to what extent problems are framed and solved in a manner that permits ongoing learning of the individual or system" (Herr & Anderson, 2005, p. 55). Specific to this PAR, process validity relates to the evidence supporting qualitative assertions and the relationships developed with participants. The use of

several sources of qualitative data ensured triangulation between the qualitative sources. Additionally, because this study used a concurrent embedded mixed methods design quantitative data augmented the qualitative data. Furthermore, my involvement in the study as a researcher practitioner allowed me to view the innovation as an outsider with formal knowledge based on extensive research relating to instructional coaching models and social capital, as well as an insider with relevant experience based knowledge. Therefore, this PAR study meets the criteria associated with process validity.

Democratic validity explores "The extent to which research is done in collaboration with all parties who have a stake in the problem under investigation" (Herr & Anderson, 2005, p. 56). This type of validity is also evaluated in terms of local context in that researchers evaluate whether the outcomes of the study are relevant to the participating group. Sam was not only my coaching partner, but my democratic partner as well. His collaboration in coding and data analysis added to the credibility of the themes. Also, this study was dependent on an environment where teachers required support during a new curriculum standards adoption. While the focus of the study was to define the role of an instructional coach in relation to increasing and sustaining social capital and providing differentiated coaching support to teachers, the outcomes of the study were meant to benefit the participants. Additionally, the participants in this study initiated processes and partnered with coaches to assist them in adopting new standards. While they participated in the study and used data to make decisions and monitor progress towards their identified goals, the participants were not involved in the analysis of the data other than to offer member checks and answer follow-up questions.

Catalytic validity measures the degree to which participants and researcher/practitioners deepen their understanding of the phenomenon under study (Herr & Anderson, 2005). In this action research study, participants were able to begin conceptualizing the shifts in pedagogy required to adopt Common Core curriculum standards with fidelity. In addition, they discovered that different supports could assist them in their adoption based on their specific needs. As the researcher/practitioner, I discovered that offering different coaching approaches and supports based on the participants' needs and Stages of Concern helped to increase their use and practice of Common Core standards. Furthermore, I gained a deeper understanding of the importance of a boundary broker in establishing external networks (discussed earlier in this chapter). These findings allowed me to adjust my instructional coaching practice to benefit all teachers' at VMS.

Dialogic validity is the process of ongoing peer review (Herr & Anderson, 2005) that includes feedback and open, inquiry based dialogue between researchers and between researchers and reviewers. Sam and I promoted the democratic and dialogic validity in that we participated in collaborative inquiry as co-researchers. This dissertation was also reviewed by three chairpersons, two are published and tenured university professors and one holds an education doctorate and currently practices her profession as an administrator of a K-8 public education school, and members of a leadership scholar community (LSC).

Limitations

In reflecting on the limitations of this study, sampling and generalizability emerge as possible limitations associated with this research design.

Although the voluntary sampling of the participants in this study was necessary due to the setting and representation of content area teams in other core teams, the results of the findings are limited in their formal generalizability to the local context. However, Herr and Anderson (2005) discuss Stake's (1986) contention that naturalistic generalization, real and vicarious experiences, can be more useful to researchers in that if readers are able to identify similarities to their own situations, it may give them a fresh perspective on old problems. Furthermore, the findings in this study support the concept that individuals learn and change based on their relationships among and between stakeholders, and that "a more knowledgeable other" is needed to facilitate a deeper understanding of participants' learning (Social Learning Theory, Vygotsky, 1978), that promoting social capital through internal collaborative networks and extended external networks that contribute new knowledge and skills support change initiatives and increase professional learning (Social Capital Theory, Coleman, 1988), and finally, that boundary brokers are instrumental in facilitating the flow of information among and between networks (Communities of Practice, Wenger, 1998).

Recommendations for Consideration

While the findings in this study are specific to the local campus, some of the findings specific to inadequate support for professional learning during times of change and initiative overload have a broader implication in that they support current education concerns (Abrahamson, 2004; DuFour & Marzono, 2011; Penuel et al., 2009). Therefore, based on my findings I make the following recommendations:

1. Districts and schools should consider shifting from a traditional teacher development and improvement model to a teacher learning model led by an instructional leader who can leverage the expertise of members of the local community (human capital) and provide opportunities for team collaboration and communication (social capital) as well.
2. Districts and schools should consider closely monitoring and evaluating change initiatives for purpose to eliminate change fatigue among employees. Assigning a strict focus to priority initiatives, monitoring the psychological impact of the change initiative on staff members, and providing sufficient professional learning support during the change process are all components that can have a positive influence on the outcomes of a change initiative (Fullan, 2001; George et al., 2006). Additionally, employers should see the facilitation of change as a team effort that requires on-going leadership. Leveraging the experiences and leadership skills of teachers, some of who are front line users and opinion leaders, are critical components of successful change efforts (Hall & Hord, 2011).

Continuous Improvement

In the spirit of ongoing or continuous improvement I reflected on the design and function of this participatory action research study to identify areas that needed revision or improvement. The concurrent embedded mixed methods research design was intentionally weighted in favor of qualitative sources due to the participatory nature of the study. All qualitative data helped triangulate the findings from each qualitative source. Only one quantitative source was used, the Stages of Concern Questionnaire and

Scoring Device. The quantitative method was embedded within the qualitative study and complemented the qualitative findings. That said, it may be helpful to add at least one more quantitative source to measure the transfer of new learning to authentic practice. Adding a quantitative observation instrument that would prompt teachers to look for specific lesson components would enrich our understanding of the effectiveness and sustainability of coach influenced social capital. Additionally, adding a qualitative reflection component as the end of the observation device could promote specific discussions and inquiry based on authentic practice.

Furthermore, extending the study from 12 weeks to a full school year would help to obtain a picture of sustainability. While this participatory action research study initiated the use of coaching components and network support, more time is needed to measure the sustainability of the coaching and networking influences. Creswell (2009) advises as one of his validity strategies that researchers, "Spend a prolonged time in the field…The more experience that a researcher has with participants in their actual setting, the more accurate or valid will be the findings (p. 192).

Future Research Cycles

In continuing to refine the role of an instructional coach and to increase social capital at VMS, I recommend further action research cycles designed to explore a more efficient use of teaming. Currently core teams meet once a month during their shared prep hour. Evidence from this cycle of research indicates the core team members benefitted from sharing with other teachers outside their content area but they did not have enough time in one meeting to discuss student intervention concerns and curriculum. Further evidence indicates that during the early stages of the curriculum

adoption teachers gained more curriculum support by teaming with their content area peers; however, content teams, excluding math, only meet once a month for 30 minutes.

After evaluating the current schedule of team meetings both content and core, I recommend a study that explores a schedule where core teams meet twice a month for 45 minutes during their shared prep period to discuss student academic intervention needs and cross-curricular and pedagogical support. Additionally, content area teams would be afforded one full work day each quarter to develop common curriculum units and assessments using Common Core standards. The additional core team meeting per month and the full work day each quarter were requests from the study participants and from several members of content area teams. The instructional coaches would attend full work day sessions for each content area to assist teams in reifying processes, resources, and artifacts, as well as to promote networks by brokering information among external networks.

Personal Reflection

In reflecting on my learning throughout the cycles of action research associated with this dissertation study, it is evident I have developed a more analytical approach to perceived problems and research and refined my leadership skills. My learning and leadership growth are directly related to my doctoral studies and the opportunities afforded me to apply theory and research to authentic situations.

Designing and participating in this study has taught me to apply a critical lens in evaluating not only research, but real-life issues as well. In the past I was quick to identify a perceived problem and act on that perception. Now however, my studies and research have taught me to analyze the situation further to identify whether the problem is

really a consequence of a much deeper issue. For example, during the first year as an instructional coach at VMS I initially believed that some teachers were autonomous and uncooperative because they were veteran teachers and did not feel they needed the support of an outsider. However, initial action research cycles showed me that teachers were autonomous because they were never offered teaming or individual coaching support and they didn't know how to exploit the new resources to benefit their own practice. Additionally, evidence revealed that some teachers were reluctant to work with me because they felt overwhelmed by the amount of information and change initiatives they were required to process. It was not that they were trying to avoid me so much as they were avoiding the upheaval of their traditional practices. Once I realized I was prone to making assumptions, I began to frame situations, events, conversations, and observations with a more critical and analytical eye.

Furthermore, I learned to approach published research literature more analytically. Understanding research design, methodology, and data analysis prepared me to question the decisions and results associated with research. This allowed me to approach my own study with a better analytical perspective.

Leadership was another area in which I experienced tremendous growth. Because teachers saw me as an instructional leader on campus, I was afforded the opportunity to apply my leadership knowledge to authentic practice. Fullan (2001) discusses the idea that when leading change, one must understand and know when to use different leadership styles throughout the process. As an instructional coach I was able to practice a distributed leadership approach which, for this phase of curriculum adoption, was most applicable. Throughout the study, there was evidence that when people were included in

defining purposes, goals, and outcomes, they were more motivated to work towards those shared components. For example, even though I guided the core team through initial processes, the team members defined their purpose and outcomes. Because they collectively agreed upon goals, established accountability, and developed measurements to identify progress towards the goals, they were able to accomplish more than the other teams and they came to their meetings prepared and focused.

Additionally, when teachers began to see me as a partner rather than a "teacher of teachers" they were more willing to open their minds and classrooms to collaboration. Providing the participants with opportunities to see themselves as partners instead of subordinates appeared to motivate them to collaboratively work towards common ends. Therefore, by promoting democratic empowerment, teachers were given opportunities to contribute ideas, processes, and goals associated with the adoption, and therefore they became more intrinsically motivated and even possibly more open to coaching and professional learning support.

Finally, I found that to lead in an environment of change, effective leaders must understand change, "Leading in a culture of change is about unlocking the mysteries of living organizations…Complexities can be unlocked and even understood but rarely controlled" (Fullan, 2001, p. 46). During this time of constant change in which the American education system seems to be re-inventing itself for the 21st century, it is my experience that the educational leaders who are most successful are the ones who can facilitate change while maintaining positive relationships with all stakeholders. This is easier said than done and requires an unwavering belief in vision, ethical fortitude, constant communication, and respect. Once administration and teachers identified these

qualities in me, they were more apt and open to working collaboratively towards a common goal.

Conclusion

Ernest T. Stringer (2007) states, “Action research seeks to engage people directly in formulating solutions to problems they confront in their community and organizational lives” (p. 34). By employing a participatory action research design to explore how an instructional coach can support a community of teachers not only during a new curriculum standards adoption, but during times of continuous change, I was able to help participants develop their own reflection and critical inquiry skills. Sustainability of any innovation is rooted in a deep understanding of the process that allows participants to be intrinsically motivated to maintain and improve it in the future. Through their participation in this study, the teachers helped define the role of an instructional coach specific to the VMS campus and now have a sense of ownership associated with the position. Additionally, in studying the promotion of social capital within this design, developing trusting and respectful relationships was greatly facilitated by the nature of participatory action research. Finally, as a researcher/practitioner I immersed myself in the action research process and built strong professional relationships with the members of the study. In doing so, I informed my own professional role as an instructional coach and as an educational leader.

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APPENDIX A

DEFINITIONS

Human Capital - The value associated with the outcomes of an individual's teaching experience, content knowledge, and pedagogical ability (Leana, 2011).

Social Capital – The value associated with the outcomes of collaborative professional communities (Leana, 2011); a network of social connections that exist between people and their shared values and norms of behavior which enable and encourage mutually advantageous social cooperation ("Social capital," n.d.).

Systems Approach to School Improvement - A system of cyclical improvements based on goal setting, progress monitoring through data collection, and reflection and revision throughout the cycles as needed to meet the established goals ((http://www.nist.gov/baldrige).

Value-added - Often used in the business sector as a competitive strategy to combine certain features and benefits that strongly appeal to a customer base ("Value added," n.d.). In education the term applies to the ability of individual teachers to contribute to student achievement (Harris, 2011).

First Order Change - Assimilation processes that allow for easy integration of experiences into existing cognitive structures (Lyddon, 1990) – "change without change – or any change in the system that does not produce a change in the structure of the system." (p. 122).

Second Order Change - Accommodation processes brought on by a disequilibrium in cognitive systems that require a shift in cognitive structures (Lyddon, 1990) – "change of change – a type of change whose occurrence alters the fundamental structure of the system" (p. 122).

APPENDIX B

COACHING INNOVATION CONFIGURATION MAP

Innovation Configuration Map for Instructional Coaching of Individuals				
Desired Outcome #1 – Collaboration – The instructional coach engages in reflective dialogue and shared planning with teachers.				
Level 1 The IC encourages a partnership relationship with teachers through participation in frequent reflective dialogue, active listening, conversations that engage the exchange or enhancement of ideas, shared problem solving, and co-creating.	**Level 2** The IC participates in frequent reflective dialogue, active listening, conversations that engage the exchange or enhancement of ideas, and shared problem solving.	**Level 3** The IC participates in shared reflective conversations with teachers.	**Level 4** The IC rarely encourages partnership relationships. The IC does most of the talking in conversations with teachers.. The IC does not encourage exchange of ideas with teachers.	**Level 5** The IC works alone.

Desired Outcome #2 - Modeling - The instructional coach helps teachers gain a deeper understanding of the intervention in context.				
Level 1 When modeling lessons or systems use, the IC: - Ensures students feel comfortable by talking to them when they first arrive. -Reviews lesson content to ensure students have sufficient background knowledge. -Clarifies the expectations for the lesson. -Interacts with students during lesson. -Clearly identifies the relationship with the teacher as a partnership. -Learns from the collaborating teacher.	**Level 2** When modeling lessons or systems use, the IC: - Ensures students feel comfortable by talking to them when they first arrive. -Reviews lesson content to ensure students have sufficient background knowledge. -Clarifies the expectations for the lesson. -Interacts with students during lesson.	**Level 3** The IC: -Reviews lesson content to ensure students have sufficient background knowledge. -Clarifies the expectations for the lesson. -Has little interaction with students during lessons.	**Level 4** The IC struggles to interact cohesively with the students and/or classroom teachers.	**Level 5** The IC models the intervention in context incorrectly.

Desired Outcome #3 - Observing – The instructional coach uses collaborative observation tools to ensure he/she remains focused on identified behaviors.				
Level 1 When observing collaborative teachers, the IC: -Identifies fundamental teaching practices being learned and clarifies what critical teaching behaviors are being observed through a collaborative discussion with the teacher. -Collaboratively creates checklists with the teacher identifying important behaviors. -Always looks for positive behaviors. -Guides teachers to make their own sense of the data collected during the observation	**Level 2** When observing collaborative teachers, the IC: -Identifies fundamental teaching practices being learned and clarifies what critical teaching behaviors are being observed through a collaborative discussion with the teacher. -Collaboratively creates checklists with the teacher identifying important behaviors. -Often looks for positive behaviors. -Reviews the observation data with the teachers.	**Level 3** When observing collaborative teachers, the IC: -Identifies fundamental teaching practices being learned and clarifies what critical teaching behaviors are being observed. -Provides observation data through written correspondence.	**Level 4** The IC does not collaborate with teachers to identify behavioral focuses but uses a general instrument instead. Observation data is often used to judge a teacher's performance instead of informing effective practices.	**Level 5** The IC only uses observations to find fault in teaching practices.

Desired Outcome #4 - Support – The instructional coach makes it as easy as possible for teachers to implement a new intervention.				
Level 1 When supporting teachers, the IC: -Provides support through resource management. -Provides modeling when needed. -Provides consistent feedback. -Provides encouragement -Identifies and celebrates successes.	**Level 2** When supporting teachers, the IC: -Provides support through resource management. -Provides modeling when needed. -Provides consistent feedback.	**Level 3** When supporting teachers, the IC: -Provides support through resource management. -Provides modeling when needed.	**Level 4** When supporting teachers, the IC: -Provides support through resource management only.	**Level 5** The IC offer very little support for teachers.

Desired Outcome #5 - Partnership with Principal – The instructional coach works in partnership with the principal.				
Level 1 The IC: -Shares an understanding and vision of the IC position with the principal. -Meets weekly with the principal to discuss intervention progress. -Develops artifacts to help the principal stayed updated with the latest strategies. -Acts quickly on the principal's concerns regarding teachers who need support.	**Level 2** The IC: -Shares an understanding and vision of the IC position with the principal. -Meets weekly with the principal to discuss intervention progress. -Addresses the principal's concerns regarding teachers who need support in a timely manner.	**Level 3** The IC: -Understands the basic responsibilities of their role on campus. -Meets periodically with the principal to discuss intervention progress. -Addresses the principal's concerns regarding teachers who need support in a timely manner.	**Level 4** The IC: -Is unclear about the responsibilities of their role on campus. -Meets periodically with the principal to discuss intervention implementation. -Rarely addresses the principal's concerns regarding teachers who need support in a timely manner.	**Level 5** The IC communicates ineffectively with the principal.

APPENDIX C

IMPLEMENTATION PLAN

Implementation Plan				
Week One				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Meet individually with the five teachers from the core team sample to review one-on-one coaching innovation configuration map and to add further expectations to the map. -Participant will complete the Stages of Concern Questionnaire (SoC). -Establish a calendar for future coaching sessions.		- First core team meeting. -Create shared norms and expectations for team. -Create team innovation configuration map emphasizing a continuous improvement cycle (Plan, do, study, act). -Plus/Delta (What worked, what could be improved).	-Complete individual meetings with teachers from the core team sample (See Monday/Tuesday).	
Week Two				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.				

Week Three				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.		-Second core team meeting -Set agenda according to components of the team innovation configuration map - Remind teams of norms and expectations -Create plan based on data discussion to establish team goals that align to campus improvement plan -Identify team and coach tasks that are needed to work towards goals -Identify/create methods to measure progress towards goals -Plus/Delta and Reflection using innovation configuration map.	-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.	
Week Four				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.				

Week Five				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.		-Third core team meeting -Set agenda according to components of the team innovation configuration map - Remind teams of norms and expectations -Study existing data to determine progress towards team goals -Identify needed actions, if any -Establish/revisit plan -Identify new team and coach tasks that are needed to work towards goals -Identify/create methods to measure progress towards goals -Plus/Delta and Reflection using innovation configuration map.	-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.	
Week Six				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.				

Week Seven				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.		-Fourth core team meeting -Set agenda according to components of the team innovation configuration map - Remind teams of norms and expectations -Study existing data to determine progress towards team goals -Identify needed actions, if any -Establish/revisit plan - Identify new team and coach tasks that are needed to work towards goals -Identify/create methods to measure progress towards goals -Plus/Delta and Reflection using innovation configuration map.	-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.	
Week Eight				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.				

Week Nine				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.		-Fifth core team meeting -Set agenda according to components of the team innovation configuration map - Remind teams of norms and expectations -Study existing data to determine progress towards team goals -Identify needed actions, if any -Establish/revisit plan -Identify new team and coach tasks that are needed to work towards goals -Identify/create methods to measure progress towards goals -Plus/Delta and Reflection using innovation configuration map	-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.	
Week Ten				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.				

Week Eleven				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.		-Sixth core team meeting -Remind teams of norms and expectations -Revisit and revise innovation configuration map -Study existing data to determine progress towards team goals -Identify needed actions, if any -Establish/revisit plan -Identify new team and coach tasks that are needed to work towards goals -Identify/create methods to measure progress towards goals -Plus/Delta and Reflection using innovation configuration map	-Conduct individual coaching sessions in accordance with one-on-one coaching innovation configuration map.	
Week Twelve				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
-Conduct individual interviews. -Individual teachers from core team complete SoC Questionnaire.				

APPENDIX D

TEAM MEETING VIGNETTE

Please use the following composite vignette of a team meeting as a reflection tool to assist you in developing your team innovation configuration map:

At 10:00 a.m. sharp, Jessie clears her throat, "Let's go ahead and call this meeting to order," she begins. As the facilitator of the meeting it is her job to ensure shared team norms are maintained and respected. She quickly distributes hand-outs representing the latest student achievement data and asks team members to take a moment to record any questions or comments they have regarding the information. The five team members representing math, science, English language arts, social studies, and special education begin analyzing the data and recording their thoughts in the margins of their hand-out. After five minutes, Jessie asks, "What are some of your thoughts about the data as it relates to our goal that by May, 100% of 8-2 Core students will master the eighth grade level literacy standards as measured by scoring an 80% or above on the 4th quarter district summative assessment?" Sheila jumps in quickly and points out that 20% of the 8-2 core students migrated from meeting to exceeding the literacy standards on the second quarter benchmark assessment. The members smile, then slap each other's hands in a 'high five' gesture as they celebrate the good news.

Once the team settles down, Sheila turns to Brad and thanks him for observing her close reading activity and tells him his questions and feedback helped her refine her lesson. Brad replies that he was glad he could help and that the literacy workshop he attended last month introduced him to more strategies he would be happy to share.

Janet speaks next, "I think this is a perfect time to talk to you about my idea. " She tells the team about Sam, the social studies department chair who works at another middle school in the district. Janet explains that Sam uses a strategy to help students learn how to 'dialogue' with complex text and that when she observed his classroom she was very impressed with the level of active engagement his students maintained as they read and disseminated a difficult piece of text from a primary source. Recalling that during the last meeting Judy had mentioned she was struggling to engage her students in close reading activities, Janet believes it would be helpful for her to observe this teacher's technique. She also suggests that if Judy likes the strategy as much as she did, the team could ask for training associated with the new strategy and conduct a lesson study to help them develop it. Judy shows her enthusiasm for the idea by quickly asking for the teacher's contact information.

Before the team can comment further, Jessie picks up the data sheet and reminds them that although Janet has a great idea, they need to make sure their efforts are aligned to student needs as indicated by the most recent data. "Do you see anything in the data that supports your suggestion?" Jessie asks. Janet points to the lowest bar on the graph that disaggregates the standards by strands. Prepared to answer the question, she explains, "As you can see, our students scored below district average on questions pertaining to identifying key ideas and details in informational text." Janet reiterates her belief that the new strategy would help students master the important literacy anchor and that the lesson study would support the development of a new tool to use in the classroom. Jessie nods her head in agreement and calls for a vote. All agree except Brad, who asks if the strategy is research based and proven. He adds that lesson studies take a lot of time and effort and that he is not comfortable committing to the proposed course of action until he is

convinced it will have a positive impact on student achievement. Jessie looks around the table and asks for comments. Judy tells Brad she understands his concerns and suggests asking Sam if she could come observe and video tape one of his lessons. If Sam agrees, Judy will bring the video back to share with the team while they eat lunch. After viewing the video, the team will decide if it is a practice they wish to pursue. Brad reluctantly agrees to Sheila's suggestion but still seems uncomfortable with the decision to move forward with the lesson study. Janet acknowledges Brad's willingness to investigate the strategy further and thanks him for his honesty and professionalism. As the digital clock above the whiteboard displays the time, Jessie reminds the team of their agreed upon action items and calls for a plus/delta ticket out the door to collect feedback regarding the facilitation of the meeting. She thanks the team for being on time and for participating with respect. She reminds Sheila to send a copy of the minutes to the administrator and wishes everyone a good afternoon.

APPENDIX E

INTERVIEW PROTOCOL AND QUESTIONS

Interview Protocol

1. Interview
    a. The five members of the sample core team will participate in one interview during week 12 of the innovation.
    b. The interviewee will specify a time and location most conducive to their schedule.
    c. The interview will last no longer than 30 minutes.
    d. The names of the interviewees will be coded to ensure anonymity.
    e. The interviewer will attempt to use probes if the interviewees stray from the topic or do not understand the question.
    f. The interview will be audio taped and the interviewer will take notes regarding body language or other non-verbal communication.
2. Post-interview: Expectations
    a. The interviews will be transcribed within a week of the interview.
    b. Directly after the transcription of the interview, the two coaches will independently identify major themes found within the interviews using axial coding.
3. Outcomes: Results
    a. The results will be used to triangulate observation, journal, and questionnaire data in order to enhance the validity of the findings (Green, 2007)

Interview Questions

1. Please tell me about your experience with the core team meetings over the past 12 weeks.
    a. What was the role of the instructional coach?
    b. What are your thoughts about the team innovation configuration map?
    c. How has participating in team meetings impacted your adoption of Common Core State Standards? Please explain.
    d. How do you rate the functionality of your team? Please explain.
2. Please tell me about your experience with the individual coaching sessions you participated in over the past 12 weeks.
    a. Describe your professional relationship with your instructional coach.
    b. How has your attitude towards the adoption of the curriculum standards changed? Can you give me a specific example?
    c. How has working with an instructional coach impacted your adoption of the Common Core State Standards?
3. Who would you most likely turn to for help regarding a professional issue? Why?
4. Please tell me about any professional networks you are involved in that have had a direct impact on your practice or your adoption of the Common Core State Standards.
    a. How did you connect to these networks?

5. Please tell me about any professional networks that have had a direct impact on your teams practice or adoption of the Common Core State Standards.
    a. How did your team connect to these networks?
6. How has the instructional coach impacted your practice?
7. How has working and networking with your peers impacted your adoption of the Common Core State Standards?

APPENDIX F

INSTITUTIONAL REVIEW BOARD APPROVAL

ASU Knowledge Enterprise Development

Office of Research Integrity and Assurance

To:	Keith Wetzel FAB
From:	Mark Roosa, Chair Soc Beh IRB
Date:	05/22/2013
Committee Action:	**Exemption Granted**
IRB Action Date:	05/22/2013
IRB Protocol #:	1305009204
Study Title:	Influencing Social Capital in Times of Change: AThree Pronged Approach to Instructional Coaching

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(1) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.