

A CASE STUDY EXAMINING THE IMPLEMENTATION OF A
CURRICULAR INNOVATION IN A K-12 SCHOOL

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But beyond this, my son, be warned: the writing of many books is endless,
and excessive devotion *to books* is wearying to the body.
Ecclesiastes 12:11-12

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ABSTRACT

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by Elizabeth A. Herron-Ruff

Schools are adopting curriculum management tools as a means to manage the written curriculum in times of changing expectations, changing roles, and changing tools. Federal mandates, state directives, and local policy decisions are external factors that impact the work of the local school, creating a tension that is conducive for change. In response, principals and classroom teachers engage in change processes to create a learning environment that is guided by a rigorous, consistent curriculum.

When adoption decisions are made, the directive to “implement” is given, often with little further consideration. The purpose of this qualitative case study was to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. Data was gathered at a K-12 public school. The researcher sought the perspectives of the principals and teachers on the implementation process of the Curriculum Crafter Tool. This research was viewed through Fixsen, Naoom, Blase, Friedman & Wallace (2005) stages and drivers of implementation.

Findings revealed that implementation is hard, complex work that takes time. Clear expectations must be outlined to continue to move the implementation forward toward sustainability. The instructional leader has the responsibility to build the capacity and competency of the teachers as they engage in the work. Classroom teachers must embrace a collaborative mindset as they share in the work. Teacher’s voice as an influencer in development of the curriculum and in instructional decisions must be heard. To impact policy and practice,

development of a common language and the anytime, anywhere access to the curriculum are benefits that serve to further energize and engage all participants in the implementation process.

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CHAPTER I

OVERVIEW

Introduction

Schools are expected to be rich learning environments where students are exposed to and challenged by a curriculum that is rigorous and thoughtfully constructed. To adhere with state and federal guidelines, the written curriculum must reflect alignment with applicable academic standards that clearly define what students should be able to do as a result of interaction with the learning agenda. Curriculum is provided to teachers as a means to guide instructional and learning decisions with the effectiveness of instruction evaluated through state assessments and specific accountability measures.

Societal expectations have changed. It is the expectation that our K-12 schools produce an educated society, one that prepares students for what lies beyond high school. As Linda Darling-Hammond (2010) said in her lecture, ‘The mission of public education is to create a public that can respond to the issues of each era at a high level of competence and commitment, to preserve and protect our democracy. Public education is a precious institution in our society’ (n.p.). As a valued and important component of it, the expectation is that public education provide all students the opportunity to learn, to attain proficiency.

To produce an educated society, state and federal educational reform initiatives have impacted the local school. For example, in the 1950’s, policy concentrating on education for the poorest and neediest students to improve “science, math, and language programs” (Spring, 2005, p. 126) was signed into law. In 1965, the Elementary and Secondary Education Act (ESEA) was approved with funding to assist low income students. And in 2002, the reauthorization of ESEA,

the No Child Left Behind (NCLB) Act of 2001, was a call to overhaul the educational system by constructing policies to revamp curriculum, instruction, assessment, and teaching (Fletcher, 2006). States were to establish academic standards and assess all students to determine proficiency. Further in 2010, the National Governors Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO) released the Common Core State Standards (CCSS) for English language arts and mathematics. The intention of the CCSS Initiative is to establish clear and consistent learning goals in order to prepare America's children for success in college and work (NGA, 2010).

The written, taught, and tested curriculum must be in alignment with the adopted state standards. Effective schools engage in practices that will have a positive impact on student achievement. The school level practice providing the greatest impact on student achievement is a guaranteed and viable curriculum (Marzano, 2003).

The end product of the educational reform agenda included the development of new standards to capture the essential knowledge for student success (NGA/CCSSO, 2010). It is the expectation that the new standards be reflected in the school's written curriculum. According to Jacobs (2010), "New essential curriculum will need revision—actual replacement of dated content, skills, and assessments with timely choices" (p. 13).

The revision of the curriculum is a large undertaking. Schools are seeking ways to assist in the process and have found curriculum management tools as a way to meet a need. After schools make the decision to adopt a tool, the next step is implementation. The purpose of this dissertation is to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice.

This chapter will provide the overall purpose for this dissertation, setting the backdrop within the educational reform movement that has occurred in K-12 public education. The problem specifically relates to the necessity for schools to revise, rewrite, and align the curriculum in response to reform initiatives. The significance of this study will be to understand that schools are seeking to use innovative means to address curricular needs. Schools are adopting innovative tools to interact with the curriculum. For the purpose of this dissertation, innovation refers to the content of a particular new idea (Fullan, 2008), a novel departure from current or conventional practice (Cohen & Loewenberg-Ball, 2006). The innovation is the curriculum management and design tool. It is anticipated that this innovation will change the way the principal and the classroom teachers work with and deliver the written curriculum. This dissertation will benefit schools considering adopting a curriculum management and design tool so that the implementation will be effective and produce the desired results. This chapter includes definitions, assumptions, delimitations, limitations, and an overview of the study.

Statement of the Problem

Today's student must acquire a different set of knowledge, skills, and perspectives than in previous generations. Students must be prepared to trade with, work alongside, and communicate with people from radically different backgrounds than their own (Bell-Rose & Desai, n.d.; Darling-Hammond, 2010). Society, as a whole, has increased the expectation for education, thus pushing educational improvement issues to the forefront of policy discussions. The academic content, the knowledge to be imparted, is a central element in curriculum design (Jacobs, 2010). The academic content as defined by the standards has changed several times in recent years, resulting in the need for curriculum revision.

Standards-based education began with the passage of the federal legislation, No Child Left Behind Act. Individual states determined the content standards by which their state education would be based. The result was a change in how educators viewed the curriculum and curriculum “regressed from a set of planned common experiences to a simple set of uniform standards to be mastered” (Wiles, 2009, p. 79). Fast forward to 2010, when in an effort to achieve consistency across the nation, the National Governors Association and the Council of Chief State School Officers (NGA/CCSSO) developed and introduced the Common Core State Standards for ELA and mathematics.

Curricular revision and updating is not a new task. Since the 1990’s, when standards-based curricular discussions began, schools have had to make curricular changes to maintain a tightly aligned standards-based curriculum, to maintain a written and viable curriculum (Marzano, 2003). The curricular development and revision process requires determination of specific content, creation of learner objectives, and development of a logical progression of learning, with consideration of appropriate assessment methods. With the requirement for alignment to new standards, the work of curricular revision will fall on curricular review teams, most likely the principal and teachers. Not only do these revisions require teachers to join together to work, reflect, and determine the content to be delivered, the curricular changes must be captured to ensure horizontal and vertical alignment. All of this, in addition to human time on task, has made curriculum management tool a vehicle for examining and revising the curriculum (Jacobs, 2010).

The problem is developing a way to manage the written curriculum in light of the changes to content expectations and standards resulted in the need to revise and rewrite the written curriculum. Innovative or new ways to manage the written curriculum are emerging. To

be effective, the innovation must be implemented with fidelity. The implementation process poses a problem in that it is a process that is not fully understood and often the expectation is that it will just happen.

To understand the complexity of this problem, the next section will present three areas of change impacting the written curriculum. First, the changing expectation of society to educate all students has pushed federal, state, and local policy decisions, resulting in a common set of academic standards. Second, the changing role of the principal and classroom teacher, as a result of policy change and society expectations, has impacted the way educators work. Third, the changing tools for curricular development and revision have increased as educational leaders seek out electronic means to facilitate completion of the revision process (Jacobs, 2010), resulting in an increased use of web-based curriculum management and design tools.

Changing Expectations

The expectations for education are changing. Educational improvement demands have increasingly become connected to federal and state policy, impacting educational decisions at all levels. The “federal government has taken on increasing leadership in the national dialogue about education, asserting greater control over policy” (Roe, 2009, n.p.).

Based on the Tenth Amendment of the federal Constitution, powers not delegated to the United States by the Constitution nor prohibited by it to the states are reserved to the states respectively (Essex, 2002, p. 2). State constitutions require legislative bodies, among other duties, to establish systems of public education and to guide the regulations in funding and administration of public education. It is the responsibility of the local school district to provide

an educational environment where all students have the opportunity to learn (Marzano, 2003) in order to meet the annual measurable objectives (Michigan Department of Education, 2010).

Over the past 40 years, the federal government has increased its influence on educational practice. In 1963, a shift occurred in the relationship among the federal government, educational expectations, and funding sources (The White House, n.d.). The passage of the ESEA included “a massive increase in federal aid to education” (New York State Archives, n.d.). ESEA emphasized increased learning opportunities for children from low income families (Hana, 2005; New York State Archives, n.d.).

ESEA included federal money connected to specific student groups with mandated actions at the state and local level. This action changed the federal role in K-12 education and increased the accountability factor for schools and teachers. In 2001, ESEA was reauthorized as the No Child Left Behind (NCLB) Act (NCLB, 2002). NCLB had a direct impact on educational practice and ultimately on the written curriculum with the requirement that by May 2003, all states have academic content standards in reading/language arts and math for grades three through eight (US Department of Education, 2002; National coalition for parent involvement, n.d.). Individual states had to write and adopt academic content standards to be in compliance. Once the academic content standards were written and approved, the expectation was that the local school would incorporate the standards into the educational program and become the foundation of the written curriculum. To accomplish the task of aligning to academic standards, schools need to revisit, revise and update the written curriculum.

NCLB’s major impact was the specific accountability requirements related to improving student achievement through the establishment of state academic standards and mandatory assessments. The assessment results were used for accountability purposes as demonstrated

by student proficiency scores (New York State Archives, n.d; The White House, n.d.).

Glatthorn and Jailall (2009), conveyed a further consequence of NCLB was that it has placed the curriculum at center stage by requiring schools to align curriculum, instruction, and assessments as a basis for securing better student achievement results (p. ix). Further in 2009, funding opportunities from the federal government came through the American Recovery and Reinvestment Act (ARRA), which provided states emergency educational funding to cover budget shortfalls and to drive key school reforms (Domestic Policy Council, 2009). Funds were delivered through the State Fiscal Stabilization Fund (SFSF) and assisted in moving state school systems towards the policy priorities. SFSF applications required states to commit to the following priorities:

- 1) to improve teacher effectiveness and promote the equitable distribution of qualified teachers;

- 2) to promote rigorous and relevant college- and career-ready standards and high-quality assessments;

- 3) to implement pre-K-to college and career data systems to support and improve teaching and learning; and

- 4) to ensure support and effective interventions for the lowest-performing schools (Domestic Policy Council, 2009; US Department of Education, 2009a).

Additional funding emerged from the Race to the Top (RttT) competitive grant designed to “spur innovation and reform in state education policy and to create a new set of assessments aligned to new common academic standards” (Whilden, n.d., p. 5). One purpose of RttT was to promote “world-class academic standards and the development of a curriculum that fosters critical thinking, problem solving, and the innovative use of knowledge to prepare

students for college and career...” (US Department of Education, 2010). A condition to qualify for RttT funds was the state adoption of national standards, the CCSS Initiative (NGA/CCSSO, 2010;Strauss, 2010).

The mission of the CCSS Initiative is “to provide a consistent, clear understanding of what students are expected to learn” (NGA/CCSSO, 2010, para.1). The CCSS were released in June 2010 and were adopted by many states. The Michigan Department of Education (MDE) supported the CCSS Initiative with formal adoption in June 2010 (Michigan Department of Education, 2011b).

The CCSS Initiative is about developing academic standards that are common across the nation. The expectation of the CCSS is to “define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school able to succeed in entry-level, credit-bearing academic college course and in workforce training programs” (NGA/CCSSO, 2010, para. 4). It is anticipated that the CCSS will provide a common definition for college and work expectations and be a guide to rigorous curriculum development through defined content. However, “the standards are not the curriculum” (NGA/CCSSO, 2010). The standards will need to be supported by a comprehensive, content-rich, rigorous curriculum; a curriculum developed by the local school district.

Changing Roles

The role of the principal and the classroom teacher are changing. In recent years, the role of school leadership has increasingly become part of the educational improvement discussions. Leadership has become part of the reform agenda with acceptance of the idea that school improvement cannot succeed without effective school leadership (*Education leadership*, 2010).

The role of the school principal continues to become more complex and challenging. The principal needs to be more than a building manager. The role has changed from “supervisor of ‘buses, budgets and butts’ to school chief executive of learning” (Holland, n.d., p. 2). The challenges presented by the “achievement gap” data (Tilson, 2009) and NCLB have refocused the primary work of principals to leading the essential teaching and learning activities in the school (The Wallace Foundation, 2009). Considering the social and educational environment, the principal must demonstrate instructional leadership skills, holding out the vision and advocating for effective learning communities in order for all students to reach their potential (*National Association, 2008*).

The core components of learning-centered leadership are high standards for student learning, a rigorous curriculum (content), quality instruction (pedagogy), and development of a culture of learning and professional behavior. Further there must be connections to external communities and performance accountability (The Wallace Foundation, 2009). The key leadership processes are planning, implementing, supporting, advocating, communicating and monitoring (The Wallace Foundation, 2009). These components illustrate what it is that instructional leaders need to do differently to address the needs of today’s student and to work with today’s teachers.

On a national perspective, the role of school leadership has been under study. The Wallace Foundation published *Four Big Lessons from a Decade of Work*, which outlines lessons learned to strengthen school leadership (*Education leadership, 2010*). Two of these lessons support the purpose of this dissertation. First, state and district leadership policies must work in harmony. Where states and districts work in harmony, the research found that principals report having significantly more authority “on important instructional matters like establishing a

curriculum” (Walters & Cameron, 2007). Secondly, top notch principals are a necessity for school improvement. “A good principal is the single most important determinant of whether a school can attract and retain high-quality teachers... and to ensure that excellent teaching spreads beyond isolated classrooms (Walters & Cameron, 2007, p. 3).

Understanding the principal’s role in ensuring high-quality teachers are in the classroom and that quality teaching is occurring contributes to the changing role of the classroom teacher. Traditionally teachers were assigned a classroom, a group of students, a curriculum and then left to do what teachers are called to do—teach. In the delivery of content, teachers make “independent and idiosyncratic decisions” (Marzano, 2003, p, 23) regarding the content to be covered, the extent of that content, often leaving gaps in the learning. These content decisions often occur in isolation, behind closed doors. According to Hess (2004), “teachers have been largely left to their own devices, with the future of every child utterly dependent on our unverified faith in each teacher’s professionalism” (p. 16).

In this environment, teachers must take on different roles. Teachers can no longer see themselves as the “king or queen of the classroom,” but adopt the role of educational guides, facilitators, and co-learners (Lanier, 1997). Jacobs (2010) described teachers as the “model, coach, innovator, researcher and collaborator with the learner throughout the learning process” (p. 226). Teachers must become actively involved in the development of the written curriculum. Jacobs (2010) proposed that all faculty and administrative members become a part of the curriculum review team, “It is only with this direct engagement in the process that they will increase their investment in the curriculum they teach” (p. 32). Teachers will have a more active role in determining the form and content of the written curriculum.

Another change that must occur to the teacher's role is to increase collaboration and collegiality through grade-level team meetings (Reeves, 2009). In a school where the teachers do not move beyond belonging to a social network, real discussion about student success will not occur (Reeves, 2009). Collegiality is characterized by authentic interactions that are professional in nature (Marzano, 2003). Collaboration can be accomplished when grade-level teachers come together to discuss areas related to student achievement, such as student assessment results, the meaning of academic standards, instructional strategies related to implementation of the curriculum.

Over the past ten years, the principal and classroom teachers have been impacted by the changes in state and federal policy and the transition to standards-based education. The curriculum development process has been shaped by the changes in educational expectations and, most recently, with the introduction of the CCSS. Local schools have the responsibility to create, develop, and deliver the rigorous, coherent curriculum (Schmoker, 2006). The curriculum must be developed by principals and teachers. It is in this environment that there has been an increased use of web-based curriculum management and design tools.

Changing Tools

While there has been a change in the educational expectations based on state and federal mandates, and a change in the role of the principal and the classroom teacher, there is also a change due to the increased use of curriculum management and design tools. State and federal requirements have changed the expectations for schools to ensure a standards-based education for all students. This change has influenced the school as principals and teachers take the responsibility for the design, development, and implementation of the written curriculum. In

response to these changes, school leaders are seeking tools to assist in the management and design of the written curriculum. Curriculum creation has been assisted by an increased use of web-based curriculum management tools. These tools have been developed to allow for electronic updating of the written curriculum. There are a number of web-based tools in the market.

With the adoption of a curriculum management and design tool, the principal along with the classroom teachers must implement to full intended use. Implementation is a process of bringing something new into the school with the end result being a program that functions as intended. Implementation is always complex, never easy and a long-term, challenging endeavor (Fixsen, Naoom, Blase, Friedman & Wallace, 2005; Hickman, 2010). Implementation must be understood as more than information dissemination or training; it is a process that follows identified stages and is influenced by implementation drivers. Too often, implementation fails and the new practice is discontinued.

Understanding the problems that have emerged because of the change in academic content standards, this dissertation will seek to discover how a school implements an innovation and to better understand how this innovation changes instructional and professional practice.

Significance of the Study

Preparing students to be academically successful in college and career is the main focus of schools (NGA/CCSSO, 2010). For schools to have the greatest impact on student achievement, a guaranteed and viable curriculum (Marzano, 2003) is necessary. Since the passage of the NCLB Act (2001) there has been a greater emphasis on aligning the curriculum to academic standards. In June 2010, the CCSS were introduced. With the adoption of the

standards, principals and teachers will need to revisit the written curriculum, for revision and creation. The curriculum development and revision process can be time consuming as well as a costly endeavor. Yet necessary processes for schools to remain in compliance with state and federal policy and to ensure students are delivered rigorous, coherent content. In order to expedite curricular development and revision, there has been an increased use of curriculum management and design tools.

Many schools are seeking systems to assist in the curriculum development process. To this end, schools are adopting curriculum management and design tools but are they being used as intended? Does the school implement the innovation with fidelity? This study is significant because it will explore a school that has adopted and implemented a curriculum management tool. The study will seek to understand how a school implemented the innovation, specifically a curriculum management and design tool.

Understanding how an innovation changes professional practice is also important. Principals and classroom teachers will benefit from this study. The building principal is responsible to lead and oversee the implementation process. The principal will benefit by understanding that implementation is a process with well-defined stages. It is also important to understand what is necessary to implement with fidelity to the intention of the innovation and how to move a school toward full implementation and sustainability. Teachers, as the primary users of these tools, will benefit with increased knowledge of their role in the implementation process. This study will seek to identify the actions and attitudes that contribute to successful implementation. It will also explore the influence on professional practice.

There are a number of web-based curriculum tools on the market, yet there is a void in published research on the tools and the implementation process. This research will add to the

literature in the area of the implementation process as it occurs in the context of a K-12 public school using a curriculum management and design tool.

Research Questions

The purpose of this dissertation is to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. The major research questions informing the inquiry are:

- How does the school implement an innovation?
 - a. How did the school choose this innovation?
 - b. What drives the innovation (new practice) forward?
 - c. What are the barriers to implementation?
- What is the role of leadership in this change?
 - a. What is the leader's role in change in relation to the implementation process?
 - b. How has the implementation process influenced principal's practice?
- How does the innovation influence instructional and professional practice?
 - a. In what ways has professional practice changed as a result of this innovation?
 - b. How has the innovation changed instructional practice?
- What can be learned from implementation of the innovation that can inform others in policy and practice?

Definition of Terms

Clarity of concepts is essential for all to understand this study. For the purpose of this study, the following terms are defined:

Adoption: A decision to use an innovation (Fullan, 1977).

Community: “A group of people living in a particular area or having characteristics in common (e.g., city, neighborhood, organization, service agency, business, professional association); the larger socio-political-cultural context in which an implementation program is intended to operate” (Fixsen et al., 2005, p. 81).

Content: The selected subject matter either taught by the teacher or self-taught by the learner; it is the desired knowledge to impart and to investigate within the time available. Content is the central element in curriculum design and can be organized within disciplines or through interdisciplinary designs (Jacobs, 2010).

Curriculum: Curriculum is the framework that outlines the essential knowledge and skills for mastery of any content area, serving as a guide to instruction and learning, used by teachers and students in the creation and use of knowledge.

Curriculum Crafter Tool: The Curriculum Crafter Tool (CCT) is a web-based curriculum management system that provides the ability to develop and modify curriculum, to create a coherent plan for instruction and learning, and to serve as the basis for teachers’ and students’ active involvement in the construction and application of knowledge (*Curriculum crafter*, definition section, 2008). This term is synonymous with CCT, tool, or curriculum management and design tool.

Fidelity: “Correspondence between the program as implemented and the program as described” (Fixsen et al., 2005, p. 82).

Implementation: “Implementation is a specified set of activities designed to put into practice an activity or program of known dimensions. Implementation processes are purposeful and are described in sufficient detail such that independent observers can detect the presence and strength of the specific set of activities related to implementation” (Fixsen et al., 2005, p. 5).

Innovation: Innovation within the context of this dissertation has two meanings. First, innovation is a novel departure from current or conventional practice that requires change (Cohen & Loewenberg-Ball, 2006). The innovation is the Curriculum Crafter Tool. Second, the descriptor innovation is used by Fixsen et al., (2005) as one of the functional stages of implementation. Innovation in this context is the act of making changes or alterations to the innovation being implemented, which should only occur well after full implementation has taken place (p. 17).

Innovativeness: Innovativeness is the process of engaging in making change happen in practice (Fullan, 2008).

Instructional leader: The principal or school leader, who has a focus on all things academic, especially increasing student learning. This role goes beyond management and administration. Principal, school leader, or instructional leader will be used interchangeably.

Instructional program: This term is used broadly to include all the instructional components of school design from educational goal, educational program, written curriculum and any specific assessment measures.

Michigan Educational Assessment Program (MEAP) Michigan assessment system that assesses students in grades 3-9 based on Michigan Curriculum Framework, the state accountability assessment (Michigan Department of Education, 2012).

Standards: Standards are specifically stated learning goals. Standards are statements of what students should know and be able to do (Noteworthy perspectives, 2000).

Standards-based education: Standards-based education is the process of teaching, learning, and assessment that focuses on national, state, and local educational standards. Academic content standards are statements of what students are expected to know and be able to do at specified

grade levels. Standards serve several important functions and roles: what to teach, increase achievement, meet needs of low achieving students, increased accountability, and increase state and federal responsibility (Oregon Department of Education, 2010).

Assumptions

For the purposes of this dissertation, it is assumed that when a new practice or when there is a departure from conventional practice is introduced that most schools will struggle with the implementation process and not recognize it as a process. It is assumed that the struggle occurs when moving beyond initial implementation. It is assumed that the school in this case study has overcome the barriers and moved the implementation process toward full implementation.

It is assumed that schools will be making changes to the written curriculum in order to maintain alignment with state or national standards. It is assumed that the principal and classroom teachers at the selected site use the Curriculum Crafter Tool (CCT) in the planning and delivery of the curriculum.

Researcher Transparency

The researcher works as an academic analyst overseeing academic performance and accountability at The Governor John Engler Center for Charter Schools, a university authorizer, where she is involved in curriculum review and development. She works closely with curriculum directors and building principals in the design and development of curricular documents that serve as a guide to teaching and instruction. In this role, the researcher has contact with many schools that have adopted curriculum management and design tools.

As a result, she has attended multiple trainings and participated in webinars about various curriculum management tools. The researcher could see the potential value of curricular tools in

supporting the work of teachers in delivery of the written curriculum. Additionally, because of the number of schools with which she had contact with that adopted the Curriculum Crafter Tool, she became interested in learning more about this particular tool. The researcher spoke with school leaders and teachers. Additionally, she met with the trainer from the Intermediate School District (ISD) and was invited to attend professional development meetings with teachers. These interactions served to confirm the potential of this tool to serve as a vehicle to benefit schools in the design and development of the written curriculum.

As the researcher continued to work with schools and school leaders, she noticed that many schools would adopt the tool, attend the trainings, yet after a short time, the tool was not being used by teachers. The researcher wondered why this occurred when the tool had so many features, as well as an embedded curriculum that had the potential to positively impact instructional decisions. As a researcher, she wanted to investigate further how this tool was used and seek to understand why a school continued or discontinued the use of the tool.

Delimitations and Limitations

The delimitations of this study are that the data will be collected from a single case site, a K-12 traditional public or charter public school, in the state of Michigan. The selected school will be one that has formally adopted and utilizes the Curriculum Crafter Tool as a curriculum management and design tool since the tool's release in 2008. Within the school, the study will be limited to the principal and classroom teachers, as implementers of the CCT. This study will use interview, observation, and artifact collection as a principle means of data collection. The researcher recognized that while culture plays a role in the change environment, this study will be further delimited by not addressing school culture.

The limitations of this study are the researcher will work within the time constraints of the selected school. The data will be obtained from a single site and will not contain any analysis of student achievement scores over time and, thus, will not have any longitudinal implications. Further, the demographic data of the school and the surrounding districts will not be considered in the analysis.

Overview of the Complete Document

This study will be divided into five chapters.

Overview of Chapter One: Overview

Chapter one presents a statement of the problem as a result of the changes that are occurring within K-12 public education. There are many changes; however, three areas will be examined. First, the changing expectations as it relates to federal and state mandates that are pushing educational change in public schools. Second, the roles of the principal and classroom teacher are changing as a result of educational reform issues. And third, the increased use of curriculum management and design tools has implementation considerations. The significance of the study and the research questions will be presented. Definitions, assumptions, research transparency, delimitations and limitations are included in chapter one.

Overview of Chapter Two: Literature Review

Chapter two presents a review of the literature related to the history of educational reform, from the 1950's to present day, the written curriculum, and the increase in use of web-based management tools, with a specific focus on the Curriculum Crafter Tool. A review of implementation theory will be presented to set the context for addressing the change

environment and the change leaders, the principal and the classroom teacher. Chapter two concludes with a conceptual model that visually represents the environment where the implementation process is at work and what drives the implementation forward to support change within the school.

Overview of Chapter Three: Methodology

Chapter three presents the research questions, the research design and rationale, site and participant selection. The primary focus of this research will be a single case study conducted in a K-12 public school. Further, the processes for data collection will be outlined, assurances for quality of the study determined, and ethical consideration will be outlined. Also included in this chapter will be the procedures for treating, coding, and analyzing the data.

Overview of Chapter Four: Presentation of Data

Chapter four will provide a description of the research site and the participants. Data gathered through interviews, observations, and document analysis will be presented. The data will be organized as it relates to each research question. Any emerging themes will be presented.

Overview of Chapter Five: Discussion and Conclusion

Chapter five will present the researcher's conclusions as related to findings and emergent themes. The findings will be grounded in the literature. The study will be critiqued and lessons learned presented. Implications and conclusions will be presented. Finally, this chapter will include recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The literature review is guided by the overall purpose of this qualitative case study which is to discover how a school implements an innovation. Specifically, this chapter will focus on better understanding how this innovation changes instructional and professional practice.

Chapter two sets the backdrop for change by considering the external factors that arise from the major educational initiatives that begin at the federal level and are pushed down to the state and finally into the local school. Over the past sixty years, there has been a gradual philosophical shift regarding the role of the federal government in education. As a result of this shift, policy changes have clearly moved American education to a standards-based system with state and federal defined accountability measures. Policy changes, accountability measures, and state and federal mandates are representative of external factors that push into the local school, resulting in the need for change in the way principals and teachers work and in particular to the way they interact with the written curriculum.

As a result of external pressures, the internal environment of an educational organization is impacted. Educational organizations or schools are driven by purpose, most often portrayed in the stated or implied mission (Hickman, 2010). As the internal environment reacts to the external pressures, social tensions and the conditions for change escalate (Hickman, 2010), preparing the environment for implementation of new practices and policies. In this dissertation, the change to be considered occurs because of the shift to a standards-based system and the resulting need for updating the written curriculum. With the introduction of standards, school

leaders found themselves in a position where updates and revision to the written curriculum is a necessary undertaking.

With this need for continuous review and development of the written curriculum, reliance on a paper-based system is no longer viable. In the past, schools relied on paper-based or textbook-centered curricular documents (English, 1992) that were often large and difficult to manage. Paper-based curriculum guides are being replaced by technology supported curriculum management and design tools. There are a number of tools on the market and schools are formally adopting, which should result in a better system of curriculum management.

Change is dynamic and complex. Understanding change theory will aid in understanding the instructional leaders role within this environment. Furthermore, the role of the classroom teacher is impacted by the change to the use of a curriculum management and design tool. The change revolves around implementation of a new system for curriculum management. For effective implementation, processes and procedures must be purposeful, creating a change in the knowledge, behavior, and attitudes of educational professionals (“State Implementation,” 2010). Drawing on the research on implementation theory, the stages of the implementation process will be outlined, and consideration will be given to what actions drive implementation forward.

This chapter will close with a conceptual model that graphically illustrates the dynamic nature of change as the influencing factors, both external and internal, that is at work within the school. Within this dynamic change in environment, the implementation process must be driven by strong instructional leadership, knowledgeable classroom teachers, and the interactions with the written curriculum.

External Factors - Pushing Educational Change

Over the past sixty years, education reform issues have increasingly focused the political agenda spotlight on the local school and thus caused change. During this same time frame, there has been a shift in the role of the federal government regarding education. The long standing, traditional position was “education should be locally controlled without federal interference” (Spring, 2005, p. 3). Over time, there has been a gradual shift in federal policy to a more directive role that impacts educational decisions at all levels, but particularly the local school. While reform initiatives are widespread and cover many aspects of education, this overview will be limited to the increase of federal influence through federal policy and initiatives that have moved education toward a standards-based achievement and accountability system.

The shift in educational policy began in the 1950’s, with the passage of “impact aid” law (P.L. 81-874), which focused on the needs of the poorest students. Title I supported reading instruction, summer school programs, and professional development for teachers. In 1958, the National Defense Education Act (NDEA) was passed with funds directed toward training mathematicians, engineers, scientists, and foreign language experts (Spring, 2005). The emergence of dedicated funds benefited the local school but did cause concern over educational control. With state and local control a concern, a safeguard to protect the belief that education is a function of the state and local educational entities was needed. Finally, in 1965 the clarifying clause that defined the federal role in education was included in ESEA (1965), Public Law 89-10, which stated that federal government could not “exercise any direction, supervision, or control over the curriculum, program of instruction, administration or personnel” (p. 57).

The shift continued when in 1963, former President Lyndon B. Johnson (1963-1969) made education part of his political agenda, the War on Poverty. This focus on minority children

resulted in “a massive increase in federal aid to education” (Roe, 2009). When the Senate approved the ESEA of 1965, federal money linked the War on Poverty to increased learning opportunities for children from minority and low income families. This was an external push by the federal government into K–12 public education (Hana, J. 2005; New York State Archives, n.d.). This strategy produced “one of the most important pieces of federal education legislation in modern times and had major consequences for future federal legislative action” (Spring, 2005, p.12). The shift included categorical funding, directly linking funding to specific educational programs, and increasing the reliance on state departments of education to administer federal funds (Spring, 2005). This increase in federal spending caused change in the local school.

In opposition to excessive federal education spending, former President Ronald Reagan (1981-1989) commissioned a national education study. The intention of this study was to examine the quality of education and to produce a report to the Nation (US Department of Education, 1983). *A Nation at Risk* (US Department of Education, 1983) illustrated the decline in student test scores and the loss of the American competitive edge. Further, “*A Nation at Risk*” defined the federal role as to “identify the national interest in education” (US Department of Education, 1983) and resulted in an increased momentum for federal proposals. Additionally, this report launched an era of politicians pushing “support [of] curriculum standards and testing as a means of halting American’s supposed economic decline in the world markets” (Spring, 2005, p. 4).

Recognizing the long standing belief in limiting federal control in educational issues, state and local officials were to specifically address the identified issues of curriculum, standards and standardized student testing. According to Spring (2005) “Standardized tests of achievement should be administered at major transition points from one level of schooling to another and

particularly from high school to college or work” (p. 5). Testing became a lasting recommendation of “A Nation at Risk” under the assumption that creating academic standards for student performance and assessments to determine achievement would force local schools to improve instruction (Spring, 2005). Mandated testing for achievement is an example of an external factor pushing into the local school, adding to the tension for change.

The federal government continued to push for changes that supported standards-based education. The National Governors Association began to develop what would become Goals 2000: The Educate America Act. This Act established a framework for comprehensive, standards-based educational reform through the development of national academic standards and voluntary national achievement assessments for all students (Spring, 2005). However, the responsibility for developing and implementing these standards and assessments would be a state obligation (Paris, 1994; Spring, 2005; New York State Archives, n.d; US Department of Education, 2002). The development of standards and aligned assessments was undertaken by state boards of education with the expectation that local schools align the curriculum to these standards.

A reauthorization of ESEA came in 2002, when former President George W. Bush (2001-2009) signed the No Child Left Behind Act of 2001 (NCLB). NCLB raised the bar on academic standards by holding states and local education agencies (LEA) accountable for student achievement. NCLB emphasized standardized assessments under local control with the funding tied directly to accountability measures (Whilden, n.d.). According to Reese (2004), the signing of NCLB was the most sweeping national education reform enacted in decades. NCLB brought attention to the need to increase academic achievement for all students, using federal grants to leverage and force improvements in student performance, by raising academic standards, and

insisting on accountability through statewide testing and specific accountability requirements for all students (No Child Left Behind, 2002; Roe, 2009; Spring, 2005; The White House, n. d).

Tying funding to educational initiatives occurred again in 2009, with the American Recovery and Reinvestment Act (ARRA). This Act had the objective of stimulating the economy through job creation but had a specific focus on pushing educational reform. ARRA has become the “foundation for education reform” (The White House, n.d.) by providing a historically large amount of funds for education. These funds were to be used to advance change and force improvements at all levels and were to be guided by stated principles that include “improve[ing] student achievement through school improvement and reform” (US Department of Education, 2009a). It was expected that the local school move toward rigorous college- and career-ready standards, provide high-quality assessments, create data systems, support effective teachers, and provide support for the lowest-performing schools (US Department of Education, 2009a; US Department of Education, 2009b). All the AARA implications contribute to the external factors that are pushing into the local school and again contributing to the tension for change.

ARRA provided an unprecedented investment in education through multiple funding streams including the State Fiscal Stabilization Act and the Race to the Top ([RttT] US Department of Education, 2009c). RttT required states to submit plans that addressed specific reform areas. One of the requirements was the adoption of nationally driven standards, the Common Core State Standard Initiative (Strauss, 2010). Most states, including Michigan, adopted the CCSS, the college- and career-ready standards in English language arts and mathematics (US Department of Education, 2010).

The federal government has amplified the importance of quality and equitable education for all students through clearly articulated educational standards and well-defined accountability

measures. The educational standards define what all students are expected to know and be able to do. The standards must therefore be complemented by a well-developed, content-rich curriculum (NGA/CCSSO, 2010). The creation of the curriculum is a local school responsibility that is being pushed by the federal and state policy mandates. These external factors, federal and state policy decisions, have a direct impact on the educational environment of the local school creating a tension that precedes change (Hickman, 2010).

The Change Environment

Change occurs within a defined environment. In order to understand change and change theory, three authors will be considered. Kotter (1996), Fullan (2001), and Hickman (2010) have all contributed to understanding change and change leadership. Kotter (1996) in *Leading Change* was an early contributor with a framework that consisted of eight stages to creating major change. The intention of Kotter's model was to move leaders through an eight step process. These eight steps are establishing a sense of urgency, creating the guiding coalition, developing vision and strategy, communicating the change vision, empowering broad-based actions, generating short-term wins, consolidating gains and producing more change and anchoring new approaches in the culture. Kotter (1996) claimed that successful change of "any magnitude goes through all eight steps" (p. 11), with a focus on the role of the leader.

Fullan (2001) further contributed to the literature on change theory and leadership by identifying five core aspects of effective change leadership. These five core aspects all work together and are compatible. Fullan's (2001) five components are moral purpose, understanding change, developing relationships, knowledge building, and making coherence (p. vi). Fullan (2001) set his components in the context of developing a "new mindset to think about and lead

complex change” (p. 3). To set the context for leadership development, Fullan (2001) concluded that leaders must develop other leaders at all levels of the organization.

Hickman (2010) in *Leading Change in Multiple Contexts* brought together change and leadership. Hickman’s work linked context to change and leadership as change occurs within a specific context. Hickman (2010) defined context, “as the setting or environment in which changes takes place” (p. xiv). This is supported by one of Fullan’s (2001) key leadership lessons, “learning in context overtime is essential” (p. 125). It is learning in the work setting that has the greatest impact on change.

Furthermore, all change revolves around the driving purpose, a central element in leading change. In a change environment, there must be a commitment to a “compelling purpose” (Hickman, 2010). The compelling purpose serves as the glue to hold together all involved participants. Similarly, Fullan’s (2001) key leadership quality was holding out to participants a strong moral purpose. In a change environment, the leader must have an explicit “making-a-difference” sense of purpose (Fullan, 2001, p. 20). While the leadership practices are adaptable, the change environment must be driven by strong purpose, all set within a context for change.

Hickman (2010) identified two elements that act as precursors to change, which she labels as causality and mindfulness. Causality or the cause for change must be understood as it occurs within the environment. Cause should not be oversimplified or considered a single chain reaction, but as complex and intricate. There are many factors and many people involved in a change organization and the factors, causes, and people must be considered. To gain an accurate perspective of all the factors, an analysis tool would be helpful.

When considering all the factors, all the people and all the causes leading to change, Lewin’s (1951) force field analysis method can assist in sorting out the causes and implications.

In Lewin's theory, there are two opposing sets of forces at work, driving and restraining forces. The driving forces support the change and push the current situation toward a positive solution while restraining forces, forces that oppose the change, push away from the solution, thus setting up tension within the environment. The process of force field analysis will aid in identifying the causes that surround and influence the change environment. In order for change to occur, a driving force must be set in motion. The instructional leader must anticipate the change, where the driving and restraining forces may arise, and how strong the support or the resistance may be (Lewin, 1951).

Using force field analysis will assist the leader in understanding mindfulness, Hickman's (2010) second precursor to change. When leaders are considering initiatives that will require change for the team, critical reflection or mindfulness about the actions and the likely consequences must be considered, all within the social context of change. An effective instructional leader must acquire the characteristic of mindfulness or thinking deeply and intentionally about change. Mindfulness must include consideration of the history, the culture and the prevailing societal norms, always with the intention of consideration to the whole (Hickman, 2010).

Change occurs within a human system. Change is influenced by many factors, both inside or outside the organization. The motivation for change can emerge from single or multiple areas. For example, change can emerge from a social situation, social tensions, or the overall climate of the school. Social tensions or conflict can arise because of many reasons, such as assigning value laden meaning to resources, the availability and distribution of resources that appears to be out of balance, external or internal pressure to perform and the necessity to show positive accountability results. Hickman (2010) indicated, "Participants in the change process

create, leverage, or challenge power constructs to bring about major change” (p. 17). Power and ethics can be used constructively to enact change or adversely when power use causes loss of rights or freedoms. Any situation that creates tension within the organization, can act as a catalyst to create the environment for change.

Change does not occur in a vacuum. According to Fullan (2010), in order for change to occur, an understanding of change must exist and the conditions for change must exist.

Additionally, Hickman (2010) identified the conditions for change as climate, timing, and various threshold points. Climate is the “totality of environmental cues, feelings and experience of groups in social contexts” (Hickman, 2010, p. 18). When the climate becomes uncertain or threatening, the conditions for change emerge. Timing is the cumulative actions that together create the opportunity to push change forward. Threshold points or tipping points occur when the perceived benefits outweigh the costs of change. Hickman (2010) expanded the leadership concept in relation to change by linking a single concept to the group: “significant social change is set in motion when a group collectively reaches a threshold point” (p. 19). It is when the climate, the timing, and the tipping point converge that change can be pushed forward.

Understanding the change implications for leadership, the context for change and the conditions for change will lead to change. The next section will present an overview of the internal factors that contribute leading change with consideration to the changing roles of the principal and the classroom teacher.

Internal Factors – Change Leadership

Hickman (2010) defined leading change as a “complex, long term, and challenging endeavor” (p. xvi). Fullan (2010) added that change is dynamic and is about motivating people

to take “new action” for improved results (p. 46). Change leadership involves not only the instructional leader but also the classroom teacher. This section will explore change leadership from both perspectives.

Change can be perceived as hard. However, Fullan (2010) spoke against the idea of thinking that change be considered as complex and difficult, by reframing the thinking about the idea of change, to be “less complex and more powerful in its impact” (p. 3). Likewise, Hickman’s (2010) findings supported the perception that turbulent or change environments should not be viewed as negative but must be viewed as positive and dynamic. In considering the environment, when members have the “requisite resources and skills to meet the demands” (McCann & Selsky, 1984) the environment should not be viewed as turbulent. Organizations with the ability to adapt, to develop capacity, and to form interdependent relationships increase the ability toward sustainability of the intended change. Organizations that adopt successfully with sufficient capacity should see dynamic, complex conditions as simply opportunities for innovation and growth (McCann & Selsky, 1984).

Change leadership is about knowing, understanding, and working with change. It is about “moving individuals, organizations and whole systems forward” (Fullan, 2010, p. 2). Change is being willing to challenge the status quo (Walters & Cameron, 2007) and make the changes that matter the most.

Understanding leadership in the realm of change is important. Hickman (2010) outlined leadership from three separate yet distinct aspects: leadership as the intended change, as the cause of change and as the action for change. Leadership for intended change occurs when the leader understands the change process and the specific purpose for the intended change. When involved in a change process, leaders must have a clear end in mind as they embark on a change

initiative. A change leader anticipates and takes responsibility for the consequences whether intentional or unintentional.

Leaders are also the cause of change within a social environment. All the actions and reactions of the leader must be considered in light of the other people involved in the change. Leaders influence, both directly and indirectly, the relationships within the environment. In reality, there is not a single leader but within the system there are many “independent and interactive sets of leaders and followers” (Hickman, 2010, p. 24). In the process of change, the work of leader often becomes that of one to influence the others in the organization. When considering leadership and change, the social networks that are at work and the individual influences must be considered. Collectively, it is all the players and all the actions that must be considered as the leader pushes change.

Finally, leaders are the action for change. The leader is the one who sets out and holds up the vision, creating a new reality for the organization. However, leaders do not work in isolation. It is only when individuals come together with a common purpose that they are able to accomplish something for the greater good. By coming together the organization can achieve the necessary momentum toward sustaining change.

Leading change is influenced by the context, shaped by the conditions and linked by leadership practices. Change occurs within a social environment that is made up of change participants. The next section will consider the two key participants, the principal as instructional leader and the teachers as team members.

The Principal as Instructional Leader

The principal plays a key role in the school. The principal must function effectively in three basic roles: 1) to assist in improving teaching and learning; 2) facilitate inclusiveness, to induce all stakeholders to work together to carry out the vision; and 3) to manage and oversee the school's non-academic functions (Ratner & Neill, 2010). The principal is the one who is responsible for knowing, understanding and working with change as well as other tasks such as academic achievement, business, and daily operations. However, according to Walters and Cameron (2007) not all functions are “essential to improving student achievement” (p. 20) and the effective school leader must know how to determine function that improves student achievement from those actions that do not.

The traditional role of the principal is being re-defined. Many school reform efforts have emphasized the need to get the principal out of the office and into the classrooms. One of the key priorities in the Blueprint for Reform is to have “highly effective principals in every school” (US Department of Education, 2010). The reform principal is one who does not devote the majority of the day on managerial and business operations, but one who focuses on instruction and learning. This re-definition encourages change in professional practice (Holland, n.d.) as the principal becomes the instructional leader.

The instructional leader must recognize the need for change and become knowledgeable about functioning in the role of leading change within the school, especially in the area of teaching and learning. Fullan (2010) in *Motion Leadership, The Skinny on Savvy Leadership* described the change leader as one who focuses on small early successes, acknowledges real problems, admits mistakes, protects people, and celebrates success along the way. The goal of the change leader is to cause action toward improvement. Fullan (2010) labeled this motion

leadership because it “causes great new things to happen” (p. 9). Motion leadership is different from past ideas because the goal is to put inside movement in motion, to get inside the process to “change direction for the better” (Fullan, 2010, p.15). This change of direction should be viewed as positive and dynamic.

Hickman’s (2010) work on the contextual influences on leading change recognized that authority is granted to lead change. In organizational change, the source of authority can be “positional authority, shared authority, or informal authority” (Hickman, 2010, p. xv). The way in which authority is granted will change from organization to organization. The instructional leader holds the position of authority and must consider how to influence others to enact change that is effective and sustainable. Shared authority comes when the principal works with all participants to enact change. When considering the implementation process, the instructional leader is the influencer on the implementation drivers and the creator of a sustainable environment. All of this occurs with participants who are competent and engaged in the process.

In order for the instructional leader to create a sustainable environment for change, the principal must build an organization where developing the organizational capacity is the norm. Fixsen et al. (2005) labeled this as a competency driver. Birkey, Sheltron and Headley (2006) further explained that the instructional leader is the one who is in the position of influence to build capacity toward effective change. And, as Fullan (2006) indicated, any reform strategy must be reframed to focus “relentlessly and deeply on capacity building and accountability” (p. 28).

Capacity building is concerned with the knowledge, skills and disposition of people individually but also from a collective perspective. Fullan (2006) defined capacity building as a “policy, strategy or action taken that increases the collective efficacy of a group to improve

student learning through new knowledge, enhanced resources and greater motivation on the part of people working individually and together” (p. 60). It is the collective group that must hold a shared purpose and possess the skills to get things done.

Building capacity within the organization contributes to assisting people in accepting change. The emphasis at the early stage is consistent with knowledge of how people change (Fullan, 2006). People often resist change because they know that learning and changing is difficult and initially they will not do it well. People do not like to do things that may show they are incompetent. Therefore, people resist change. As Black and Gregerson (2002) explained, people prefer to be competent at the wrong thing rather than be incompetent at the right thing. However, participants must understand that the learning is the work. Furthermore, according to City, Elmore, Fiarman, and Teitel (2009), participants learn to do the work by doing the work. Fullan (2010) agreed that with new skills the work is hard but with persistence and as people learn the work, the work will become easier.

To develop competency, the key elements of training, coaching and performance assessment are key. Fullan (2006) noted that “Learning in context and learning every day” (p. 61) builds towards competency. It is through the collective nature, or collaboration, in training and skill development by the group that change is propelled forward. Collaboration is the work of coming together as a group. To be effective, according to Reeves (2009) professional collaboration requires “time, practice and accountability” (p. 46). Schmoker (2006) also noted that collaboration can take many forms, but should be structured to obtain specific results. Collaboration will require practice. Reeves (2009) agreed that change will only occur when there is repeated practice of the expected professional behavior and when the group can see evidence of effectiveness of the new practice.

The instructional leader holds a critical role in ensuring that the best practices are driving change. Leadership guides and manages the change effort. This includes sustaining the change environment and ensuring that schedules and agendas are such to support change. In order to do this, the instructional leader must work in coordination with the classroom teachers.

The Classroom Teacher

The practice of the classroom teacher has also seen many changes as a result of both external and internal factors. The classroom teacher is on the front lines with students and the leading delivery of the written curriculum; the only professional who can accurately report what is happening in the classroom (Jacobs, 1997). It is the classroom teacher who identifies struggling students and creates multiple ways to deliver content. Teachers create the conditions that influence what happens in the classroom and the interactions with the written curriculum; this is where schooling occurs (City et al., 2009).

Traditionally, teachers have predominately worked in an independent position within individual classrooms. This system fostered isolation (City et al., 2009) and allowed teachers to teach what they wanted, typically not following the common curriculum (Schmoker, 2006). While the teacher is the professional who knows what is being taught (Jacobs, 1997), they often make “independent and idiosyncratic decisions regarding what should be covered and to what extent” (Marzano, 2003, p. 23). Marzano (2003) also noted that due to this system of isolation and independent decision making, it is not always clear if a common written curriculum is followed or what content is or is not being addressed. Furthermore, City et al. (2009) indicated that a “closed classroom door will not help us educate all student to high levels.”

Teacher practice is changing. The passage of NCLB, which supports standards-based reform, was based on the premise that setting high standards and establishing measureable goals can improve individual outcomes (No Child Left Behind, n.d.) has directly impacted the work of teachers. Beyond the delivery of classroom content, teacher tasks include reviewing student performance data, analyzing student work, developing lesson plans, writing common assessments, and aligning the curriculum. Additionally, according to Ratner (2010) teachers collect and analyze data, use the data to impact instructional decisions and adjust teaching strategies and methodologies. All changes to teacher practice.

With the increased focus on teaching to mastery of standards, the use of worksheets, drill-and-memorize activities, and elaborate test-coaching programs have decreased. The focus is on presenting an engaging, challenging curriculum that supports content acquisition through a range of instructional modes and techniques, including development of student cognitive strategies (Conley, 2011). Teachers should develop content in a way to “elicit deeper learning” (Conley, 2011, p 18). The use of standards-based curriculum is a way to think differently about learning. According to Conley (2011), “Schools have the opportunity to redesign curriculum and instruction in a way that fully engages students in cognitively challenging tasks” (p 20).

The changing role of the classroom teacher includes becoming an active team member in grade-level team meetings and professional learning communities. While the focus of this dissertation is not on professional learning community philosophy or structure, the concept of teaming and collaborative environments are essential to create sustainable change. Grade level team meetings will assist teachers in developing a broader view of the curriculum and supportive instructional practices. During grade level meetings, it is necessary for teachers to “establish a

common, concise set of essential curricular standards and teach to a roughly common schedule” (Schmoker, 2006, p. 106).

The guidelines for grade level meetings are relatively simple. Teachers must meet regularly, meet for a minimum of 45 minutes and have a sharp focus on instruction and common assessments (Reeves, 2009; Schmoker, 2006). Combined with a “guaranteed and viable curriculum” (Marzano, 2003 p. 15), these simple, fundamental concepts, and the continual analysis of actual lessons and units, and improvement of instruction, deserve attention more than anything else we do in the name of school improvement (Schmoker, 2006).

Instructional leaders and classroom teachers are the key participants in the change process. The instructional leader and the classroom teachers must work together to bring about change in order to meet the state and federal mandates, specifically as it relates to the delivery of the written curriculum. Secretary of Education Duncan (2009) recognized, “I will always give NCLB credit for exposing achievement gaps.... NCLB helped expand the standards and accountability movement. Today, we expect districts, principals and teachers to take responsibility for the academic performance of their schools and students” (para. 18-19). Academic performance can only be increased when teachers possess and deliver a coherent, rigorous curriculum.

Determining the Instructional Program and Curriculum

The instructional program, the written educational philosophy of a school, defines the written curriculum. The responsibility to determine the instructional program begins with the United States Constitution, our framework for orderly government operation. All statutes enacted at the federal, state, and local levels as well as state constitutions, local regulations and

ordinances are subordinate to the Constitution. Based on the Tenth Amendment of the federal Constitution, powers not delegated by the Constitution, nor prohibited by it, are reserved to the states respectively (Essex, 2002). State constitutions require legislative bodies, among other duties, to establish systems of public education, which encompass the development of the written curriculum.

In Michigan, the Constitution allows for the encouragement of public education, “Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged” (Mich. Const. art. 8 § 1). Additionally, “The legislature shall maintain and support a system of free public elementary and secondary schools as defined by law...” (Mich. Const. art. 8 § 2). Within Michigan law, the Legislature has the authority to prescribe the curriculum and the subjects to be taught in the public schools of the state (Sturgis v. Allegan, 1955) and local boards of education may not fail to offer the mandated subjects (Epperson, 1968; Grinstead, 1994).

The legislation that guides Michigan’s primary education law is the Revised School Code, Public Act 451 of 1976 (Mich. Leg, 1976). The Revised School Code (Code) provides for a system of public instruction for all elementary and secondary schools. The Code directs school districts to:

- (a) Establish a core academic curriculum for its pupils at the elementary, middle, and secondary school levels. The core academic curriculum shall define academic objectives to be achieved by all pupils and shall be based upon the school district's educational mission, long-range pupil goals, and pupil performance objectives (MCL § 380.1278).

This mandate clearly establishes the necessity for the development of a core academic curriculum with linkage to student outcomes, educational mission, long range student goals, and

student performance objectives. While the requirements for curriculum, assessment, and instruction are guided by legislative action and local school board decisions, these requirements are enacted at the local school level. The Code addresses the requirements for the board to work with the building level personnel, “After consulting with teachers and school building administrators, determine the aligned instructional program for delivering the core academic curriculum and identify the courses and programs in which the core academic curriculum will be taught” (Mich. Leg, 1976, MCL § 380.1278, 3[b]). Building level personnel, the principal and classroom teacher, have a responsibility to design, develop, and implement the written curriculum.

Beginning in 1993, Michigan moved to adopt legislation to improve instructional programs and the written curriculum. Due in part to be in compliance with federal legislation associated with the NCLB, the state led initiative reflected a philosophical shift that joined accreditation standards, curriculum development, and assessment practices (Mich. Leg., 1976, art. §1280). Under NCLB, states were required to develop academic standards and then put into place a standardized assessment system to assess all students (Wilden, n.d.). This mandate directly impacted the written curriculum by linking mandated assessment to the core academic curriculum. The test results serve “as an indicator of which students need additional assistance and of whether the district's curriculum is adequately aligned to prepare pupils to achieve a state endorsement” (Mich. Leg., 1976, MCL § 380.1282).

In April 2006, the Michigan State Board of Education adopted the Michigan Merit Curriculum (MMC), defining the courses needed to receive a high school diploma (Michigan Department of Education, 2010). This significantly increased the rigor of high school graduation requirements by requiring specific courses being offered. These requirements further

necessitated the need to develop or revise not only the high school curriculum, but also impacted K-8 curriculum.

In June 2010, the Michigan State Board of Education adopted the CCSS (Michigan Department of Education, 2010). The CCSS Initiative sought to bring together a set of common, refined standards (NGA/CCSSO, 2010). The CCSS are focused, fewer in number, and written for understanding. The standards are more rigorous, more challenging, and more demanding for students with coherence to the discipline under study (Michigan Department of Education, 2011b). While there is a multi-year transition timeline for implementation of the CCSS, the change in academic standards will require the local school to make adjustments, rewrites and alignment decisions regarding the written curriculum.

These changes in expectations and requirements have created an environment for change, particularly in the area of curriculum development. The next section will provide a brief history of curriculum and its position as a guiding instructional document, and a common definition.

The Written Curriculum

Curricular History

Although the purpose of this dissertation is to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice, in order to understand the context for curriculum, it is necessary to establish a common understanding of the word “curriculum”. Curriculum alone, as a topic and concept, could be a huge undertaking. Volumes have been written on all aspects of curriculum. However, the term – curriculum – is widely used and wrapped in complex meaning

and multiple interpretations. For the purposes of this dissertation, a working definition will be established.

Curriculum has its origins in running and the chariot tracks of Greece, literally “a course” meaning “to run a course” (Word Origins, n.d.). The Latin word curriculum is *currere*, meaning to run or perhaps traverse as in a racing chariot (Smith, 2000). The first borrowing of the Latin word into English, in the late seventeenth century, was in relation to a light, two-wheeled, twin-horsed carriage, the *curricle*, the sports car of carriage days. At this same time, the Latin word *curriculum* had been in use in Latin texts in at least one of the ancient universities to denote a course of study. It appeared as an English word in 1824, at Glasgow University (Smith, 2000). Around 1900, with the use of textbooks to prepare teachers in normal schools, curriculum became associated with the textbook as a means of dictating the curriculum (English, 1992, p. 2). This understanding has remained for many years.

Curriculum Defined

What is the understanding of curriculum in the today’s market? English (1992) defined curriculum as the work plan developed by or for teachers to use in the classroom by which the content, scope, and sequence, and to some extent the methodology of their teaching is defined and configured (p. 17). Curriculum can be defined as the plans made to guide learning in the school, usually represented in retrievable documents of several levels of generality, and the actualization of those plans in the classroom, as experienced by the learners and as record by an observer; those experiences take place in a learning environment that also influences what is learned (Glatthorn, Boschee & Whitehead, 2009, p. 3).

Gross (1998) generally defined curriculum as a type of document with the purpose of setting the learning agenda, to focus and connect the work of the classroom teacher. The online curriculum tool, the Curriculum Crafter[®] (2008) defined curriculum as, “a dynamic structured series of intended learnings; a coherent plan for instruction and learning serving as the basis for teachers’ and students’ active involvement in the construction and application of knowledge.” (definitions section, para. 8). When Popham (2003) used the word curriculum, he means the outcomes that educators hope to achieve with their students. Finally, Ainsworth (2010) defined:

a rigorous curriculum as an inclusive set of intentionally aligned components—clear learning outcomes with matching assessments, engaging learning experiences, and instructional strategies—organized into sequenced units of study that serve as both the detailed road map and the high-quality delivery system for ensuring that all students achieve the desired end: the attainment of their grade- or course-specific standards with a particular content area. (p. 8)

From the extensive range of definitions there is clearly multiple understandings surrounding curriculum, resulting in “a rather nebulous understanding of the term whenever educators use it in dialogues and discussions” (Ainsworth, 2010, p. 4). For the purposes of this dissertation, curriculum will be defined as the framework that outlines the essential knowledge and skills for mastery of any content area, serving as a guide to instruction and learning, used by teachers and students in the creation and use of knowledge.

While a definition of curriculum has been presented, with the move to the CCSS, the discussion on what defines the curriculum and what it means for schools has again surfaced. Gewertz (2011) accurately captured the multiple misunderstandings around the use of the word curriculum and its multiple meanings:

To some, that term can mean a scripted, day-to-day lesson plan, while to others, it's a lean set of big ideas that can be tackled in many ways. In some states, a textbook becomes the de facto curriculum. In others, academic standards and broad outlines called frameworks, with or without model lesson plans and other guidance for teachers, are rolled together and referred to as "state curriculum." Some school districts purchase off-the-shelf programs they refer to as curricula, and others craft their own. (n.p.)

While the confusion continues and the "nebulous understanding" (Ainsworth, 2010, p. 4) remains, school leaders and teachers must recognize that however you define curriculum, it is a critical component in any school. Schmoker (2011) explained, "Curriculum, what we actually teach, may be the single largest school factor that affects learning, intellectual development, and college- and career-readiness" (p. 70). When considering school effectiveness there is multiple factors that directly impact student achievement. Marzano (2003) identified five school level factors, with a "guaranteed and viable curriculum the school level factor with the most impact on student achievement" (p. 15). A guaranteed curriculum means that clear guidance is given to teachers regarding the content to be delivered at specific course and grade levels and that students are given the opportunity to learn that content. A viable curriculum means that the articulated curriculum content can be adequately addressed in the time available (Marzano, 2003).

To truly understand a study of curriculum, the types of curriculum must be considered. Marzano (2003) identified three types of curriculum: the intended, implemented, and attained curriculum. The intended curriculum is the content specified by the state, district, or school addressed in a particular course; the implemented curriculum is content actually delivered by the teacher, and the attained curriculum is content actually learned by students. Glatthorn, et al.

(2009), identified five types of curriculum: recommended, written, taught, operational, and learned curriculum. The recommended curriculum consists of the recommendations proposed by scholars or experts; the written curriculum is contained in the school's curriculum guides; the taught is what teachers believe they are teaching; the operational curriculum is what an observer would observe in the classroom; and the learned curriculum is what student are actually learning.

Regardless of adherence to three types or five types of curriculum, principals and teachers must recognize that the differences exist and that there needs to be alignment between the types. It is critical that school leaders understand the importance of a implementing a rigorous written curriculum. As Schmoker (2011) stated, "until we have built a clear, coherent curriculum for every course, we'll only have a superficial impact on learning or achievement" (p. 70). A first step toward a rigorous written curriculum is clarification through a common definition. For the purposes of this paper, curriculum will be defined as the framework that outlines the essential knowledge and skills for mastery of any content area, serving as a guide to instruction and learning used by teachers and student in the creation and use of knowledge.

Curricular Changes

Within a standards-based environment, the development, refinement and revision of the curriculum are an ongoing process. In the past fifteen years, there have been standards-based initiatives that require change to the written curriculum. The most recent change came in 2010, when the CCSS Initiative was released to the public. The purpose of the CCSS is to "define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school fully prepared for college and career (Michigan Department of Education, 2010, para. 3). It must be understood that while the common state standards will provide a

common definition for college- and career-readiness, “the standards are not the curriculum” (NGA/CCSSO, 2010). The standards and benchmarks “give definition to a curriculum but should not be seen as the curriculum (Wiles, 2009, p. 32). The standards will need to be supported by a coherent, comprehensive, content-rich, rigorous curriculum. Schools are expected to develop and implement a curriculum that is aligned to these specific standards (Munson, 2011); therefore, it will be the responsibility of the school, as well as both the principal and classroom teachers, to make sense of and understand the purpose of the new standards and then begin the process of building a coherent, rigorous curriculum that is based on the CCSS.

Schools must have a well-written curriculum to serve as a guide to the teaching and learning that occurs in the classroom. Further, schools should have a process to monitor coverage of the content. Marzano (2003) suggested that principals monitor and ask teachers for “evidence of adequate coverage” (p. 31) to ensure that the content is being delivered and that students are provided with the “opportunity to learn” (p. 22).

Schools need a system to facilitate the curriculum development process. Typically, curriculum guides were developed at the district level, often by a curriculum specialist and presented to teacher with the expectation that the teacher follow the written guide. These curricular guides were traditionally a paper-based system of large, and often multiple, binders of documents such as scope and sequence, specific course content, instructional resources, instructional strategies, and additional reference materials. The upkeep and maintenance of these guides was costly as well as time consuming. An alternative to the three ring binders is a technology-based system. Technology, in the area of curricular reform, is a catalyst for change (Glatthorn, et al., 2009). In today’s knowledge creation environment, technology and web-based curriculum management tools have emerged as a means to facilitate easy access and revision to

the written curriculum (Glatthorn, 2009; Jacobs, 1997; Jacobs, 2010). The next section outlines several web-based tools that can be used for curriculum management.

Curricular Tools

In response to the need for easy access to the written curriculum, with the ability to make real time adjusts, web-based curriculum management tools have emerged. There are a number of these tools available. It is noteworthy that no published research was available on these tools. This section will offer a brief overview of tools offered by four companies: SunGard K-12 Education, Rubicon International, Collaborative Learning and the Intermediate School District. Since this dissertation is concerned with the implementation of the Curriculum Crafter Tool, a detailed overview of the development of the CCT and a summary of the key features of the CCT will be included.

SunGard K-12 Education offers a software system called Performance Plus. According to the SunGard website (n.d.), this system offers district-wide software solutions to assist teachers and principals in supporting student achievement anytime, anywhere. This system provides tools that can be used across districts, implemented as a stand-alone system or as a complete system. The software package includes management of student information, assessment, special education, financial, and human resource.

To support curriculum development, SunGard K-12 Education offers the CurriculumCONNECTOR. CurriculumCONNECTOR claims it is easy for educators to develop and share a comprehensive standards-based curriculum, including units, lessons, and assessments. A robust and highly sophisticated system, CurriculumCONNECTOR delivers flexible unit design, interactive charts and graphs, and a searchable database of curriculum

exemplars. This tool allows for development and review of a comprehensive, standards-based curriculum, which can “help teachers and administrator create a professional learning community where they can review, revise, and renew their ideas with ease” (“SunGard,” n.d., para 1).

Rubicon International offers the Atlas Curricular System (Atlas). Atlas is a web-based, customizable application designed to manage a curriculum mapping process using a unit-based mapping approach. This tool facilitates collaboration among teachers across subjects, grades, and schools, going beyond just recording and reporting, to the design and sharing of curriculum strategies. This allows teachers and principals to have the most up to date and enhanced curriculum information to make curriculum decisions to advance and improve the learning experience of all students (Rubicon, 2013).

The Atlas tool is designed for teachers to have immediate access to the curriculum and support instruction-based curriculum planning, with customizable mapping templates, and planners. This tool allows for alignment of the taught curriculum to school, district, state, or national standards, as well as supporting course development, assessment planning, and testing. This system supports drag, drop, and edit. Principals can track and implement educational goals, monitor curricular decisions, facilitate alignment, and track curriculum to academic standards (Rubicon International, 2013).

Collaborative Learning, Inc. offers the Curriculum Mapper (2011). According to the Curriculum Mapper website, Curriculum Mapper 2010 is more than an alignment tool, it is a report and diagnostic program, using real-time data to identify needs for improving curriculum, instruction, and assessment. The Mapper claims to have the ability to identify gaps and redundancies as well as a calendar feature for month-to-month viewing. A master curriculum can be created, linked to the standards, and other initiatives (Collaborative Learning, 2011).

The Intermediate School District (ISD) offers the Curriculum Crafter Tool. Since this dissertation is interested in the implementation and use of a curriculum management tool, the background and development of the CCT is included.

The Curriculum Crafter™

Background of Curriculum Crafter Tool

The approval of the Public Act 25 (PA 25) in 1990 was the first step toward a comprehensive framework for standards-based accountability in Michigan's public schools. PA 25 contained four key mandates, one of which included the mandate for the state to establish of a model core curriculum (The Education Policy Center at MSU, 2000).

In response to PA 25, the ISD began developing a K-12 aligned curriculum for the core content areas. The result was the Kent County Collaborative Core Curriculum (KC4), a curriculum that was developed for teachers by teachers and has evolved into a complete and highly respected curriculum (*Curriculum crafter*, 2008). In the beginning, large teams of grade level teachers came together and determined the scope and sequence for each content area based on the Michigan Curriculum Framework (MCF). Subsequently, other teams built upon this work and created a written curriculum for all grades, K-12. This curriculum has been continuously monitored and updated to reflect policy changes as well as changes in best practice in curriculum design. This monitoring continues as the ISD works on updates as a result of the Michigan adoption of the CCSS.

Originally the KC4 was printed on paper and stored in three-ring binders. Each school that adopted the KC4 would receive a large set of binders that would be periodically updated

with paper inserts. This process proved cumbersome. In response to a voiced need of the consumer, the ISD began the development of a web-based curriculum tool.

Obtaining and Using the Curriculum Crafter Tool

In August 2008, the Curriculum Crafter[®], referred to as the Curriculum Crafter Tool (CCT; tool), was introduced. The CCT is a web-based curriculum management and design tool that includes the research-based KC4 curriculum. The CCT is available through a subscription purchase and accessed through a password protected website. The curriculum undergoes periodic and systematic revision to maintain strategic alignment with the state and national standards. With the introduction of the CCSS, the CCT was upgraded to include units of instruction that are specifically based on these standards (*Curriculum crafter*, 2008).

The embedded curriculum within the tool covers the core areas of English language arts, mathematics, science, and social studies. Additionally, the tool includes a framework, for the non-core subjects of physical education, health, technology, world language, and visual and performing arts. These non-core frameworks are set-up to allow the local school to develop and store school specific curriculum in the tool.

Creating and maintaining curriculum can be a time consuming process. Many teachers have found it difficult to do the main job of teaching while also having the responsibility for creating and updating the curriculum. A major selling feature of the CCT is the ability to update, revise, and align curriculum in a fraction of the time of traditional curriculum revision. The web-based Curriculum Crafter Tool simplifies curriculum development and has virtually eliminated the need for teachers to spend long hours in curriculum development and planning meetings (*Curriculum crafter*, 2008).

Within the CCT, the standards have been organized into power standards that seek to answer “three questions: 1) Is it a needed skill? 2) Is it something necessary for mastery? or 3) Is it on the state accountability assessment?” (*Curriculum crafter*, 2008). If the standard answered affirmatively to any of these questions, the standard is deemed to be power standard. These power standards are easily identifiable with a red typeface and the full text is available in a rollover pop-up.

The CCT includes the instructional units, which are organized in developmentally appropriate and a purposeful sequence. The instructional units include the learner will (TLW) statements, enduring understandings, essential questions, a working vocabulary, and instructional strategies. There are also files of instructional and differentiated instructional resources, which are up-loadable and editable. All instructional units are created to be in alignment to the Michigan content expectations (for elementary and secondary) and as applicable to the CCSS.

The instructional units are organized in a series called “Unit of Instructional Analysis”. These units are categorized by the strand to which they align, and are listed in the order in which those strands occur within the content expectation document as published by the Michigan Department of Education (MDE). The individual lessons are sequenced in order to scaffold the instruction of lessons (*Curriculum crafter*, 2008). Another key feature of the CCT is the school district’s ability to reorganize the content to meet individual student and overall school goals.

The tool includes a mapping function. The mapping function is a calendar based system, designed to allow schools to map the curriculum. Teachers can record the sequence of instructional units and the time necessary to teach each instructional concept. The mapping feature allows for teaching teams to match time to specific content, to allow for similar content

coverage across multiple classrooms, as well as record instructional time to benefit teachers in adjacent grade levels (*Curriculum crafter*, 2008).

With the purchase of the CCT, the school district receives four hours of professional development. One of the promotional features of the CCT is the reduced training time due to the tool design and the ability of the user to readily learn and understand how the program operates (*Curriculum crafter*, 2008). Additionally, the “likelihood of adoption and success can be significantly increased” because teachers can readily master use of the tool (*Curriculum crafter*, 2008, para. 7). The creators of the CCT recommend throughout the implementation process schools use Professional Learning Communities (PLCs), grade level/department meetings, and teachers meetings as a platform to insure appropriate understanding and commitment to the use of the Curriculum Crafter (*Curriculum crafter*, 2008).

The CCT is a web-based curriculum management and design tool that offers many features that are attractive to a school seeking a system to manage the written curriculum. Many schools make the decision to adopt the CCT. However, adoption is only the first step in the process. In order to bring about the necessary change for the school to successfully implement the tool, an understanding of the implementation process is needed. The next section will examine implementation theory.

Implementation

Like the word “curriculum,” implementation as a word that is often used, yet is ambiguous, and open to multiple interpretations. New innovations, whether a program, practice or process, are often introduced with the implied directive ‘to implement.’ According to Marzano (2003), with any new innovation introduced into the school, the desired outcome

should be to “positively impact student achievement” (p. 166) and to have the program or tool operate with conformity to the intended program, in a manner that best benefits the intended recipients. Also, as indicated by Fullan (2003), regardless of what program, practice, or process is being introduced, “it cannot impact student learning if it is superficially implemented” (p. 31). Within this section, implementation will be defined, a framework for understanding implementation will be presented, the discernible stages of implementation will be discussed, and what drives implementation will be explored.

There is a growing body of literature that suggests using implementation research will aid in the process of implementing programs with fidelity, resulting in achievement of the expected outcomes. The overarching goal of any school implementation process should be grounded in what is best for students and their educational needs. In a Mid-continent Research for Education and Learning (McRel) research meta-analysis, “for research-based classroom and school practices to improve achievement, they must be implemented with quality, fidelity, consistency, and intensity. Marginal, inconsistent, or unskillful implementation is not likely to produce desired results” (Waters & Cameron, 2007, p. 22). Implementation with fidelity is a critical consideration.

Fullan and Pomfret (1977), co-authored a work entitled *Research on Curriculum and Instruction Implementation*. The intention of this work was to demonstrate “why implementation is an important phenomenon, with the main purpose being to explicate the meaning of implementation and its potential determinants by identifying and critically assessing research evidence” (Fullan & Pomfret, 1977, p. 336). Fullan and Pomfret (1977) suggested five reasons for a study of implementation. They indicated that researchers should focus on implementation to know what has changed, to understand why so many educational changes fail

to become established, to ensure that the implementation is not ignored or confused with other aspects of change, to accurately interpret learning outcomes and to relate these to possible determinants. The study examined many research projects and concluded “a great deal of work remains to be done on conceptualizing the meaning and processes of implementation” (Fullan & Pomfret, 1977, p. 393).

A significant study of the research literature related to implementation was conducted by National Implementation Research Network (NIRN). Fixsen, Naoom, Blase, Friedman & Wallace (2005) conducted a meta-analysis, which included social sector research with data collected on implementation practices. The goal was to synthesize the research on implementation practices, to determine the relevant components and conditions for implementation and identify any relationships that assist in understanding implementation (Fixsen et al., 2005). While the research did not specifically address implementation in the school setting, the application to a school is appropriate.

Fixsen et al. (2005) defined implementation as a “specified set of activities or programs to put into practice an activity or program of known dimensions” (p. 5). In the NIRN Brief, *Implementation: The Missing Link Between Research and Practice*, Fixsen and Blase (2009) further defined implementation as “the art and science of incorporating innovations into typical human service settings to benefit children, families, adults and communities” (n.p.). Franks (2010) expanded even further, indicating that implementation was “to put into effect according to or by means of a definite plan or procedure” (n.p.). Fullan (2003) simply expressed implementation as “whether or not a given idea, practice or program gets ‘put in place’” (p. 32).

Implementation is “synonymous with coordinated change at the system, organization, program or practice level” (Fixsen et al., 2005, p. vi). Implementation is the hard work of

bringing in a program and ensuring that the program is realized as intended. Implementation should not be considered an easy task; it is always complex, long-term and challenging endeavor (Fixsen et al., 2005; Hickman, 2010). Implementation is not an isolated event, but a process (Simpson, 2008) that requires a purposeful, thoughtful approach. Implementation occurs when new characteristics are actually in use within a social system (Fullan & Pomfret, 1977).

When considering an inquiry into the implementation process, it must be remembered that implementation does not occur in a vacuum but that implementation occurs in context, within an organization (Fixsen et al., 2005). Hickman (2010) also explained that the context, the setting or environment, “matters a great deal, along with the contextual elements of history, culture, and society” (p. xiv). Implementers must know and understand the organization in which an innovation is being introduced.

Within the context of the organization, there must be an understanding that change must occur for the innovation to be effective. A transfer of knowledge occurs that recreates routines in the new setting, allowing the function of the original within the new parameters to continue. Through problem solving, continued use and repetition, the people doing the work of implementation can move toward effective implementation. Further, in order to sustain implementation, commitment to and control over the use the innovation is necessary. The implementers must be granted the opportunity and responsibility to take ownership, for the change process.

In order to understand implementation, Fixsen et al. (2005) developed a conceptual framework that illustrates implementation of “well-defined programs and practices” (p. 12). The framework consists of five essential components that in the simplest form make up implementation. The five components are:

- 1) source is the original practice being implemented, which may be a composite of the original or the best features of an attempted implementation;
- 2) destination is the individual and the organization that adopts, houses, and supports the innovation;
- 3) a communication link consisting of the people who represent the program and actively work to implement the program with fidelity;
- 4) with feedback, the regular flow of reliable information about performance between the people involved in the implementation;
- 5) that operates within a sphere of influence, consisting of the social or political factors that impinge directly or indirectly on the people, organization or system.

Within this framework, the “desired outcomes are achieved when effective programs are implemented well” (Fixsen, 2010, p. 12).

This framework identifies the key components with a strong emphasis on the interaction between the components. Information is exchanged between the people who are actively involved in the implementation, the source and the destination or the organization. All of these components operate within a system that is influenced by external and internal factors. To relate this framework to this inquiry, the source is the innovation, a curriculum management and design tool. The communication link is the people at the school who exchange information, the principal, the classroom teachers, and the ISD trainers. Feedback is the flow of knowledge between the people. The sphere of influence is the environment where external and internal factors are at work, causing the tension that will force change.

Implementation is a complex process that occurs within an organization. The next section will define the stages of implementation. It must be emphasized that the stages are recursive in nature, with movement between the stages until full implementation is achieved.

Stages of Implementation

Fixsen et al. (2005), in the metaanalysis of the literature, stated that “implementation is a process, not an event. Implementation will not happen all at once or proceed smoothly, at least not at first” (p. 15). Figure one illustrates the six stages of the implementation cycle. This is a dynamic process that is neither linear nor static. The implementation process is not a quick process but a process that takes time to move from exploration and adoption to the point where sustainability occurs within the organization (Fixsen et al., 2005; Hanna, 2003).

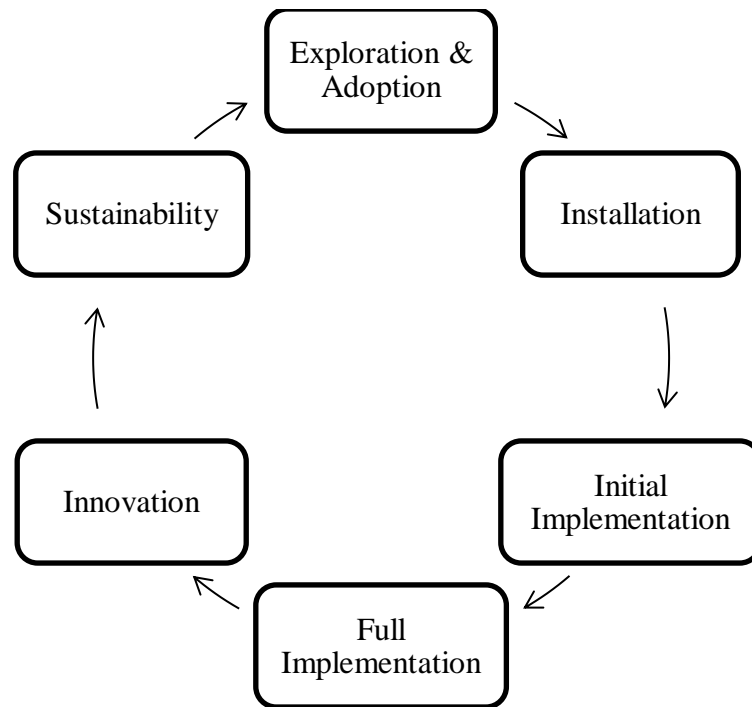


Figure 1. Implementation Cycle (Fixsen et al., (2005)

Fixsen et al. (2005) identified six functional stages of implementation. A working definition of each stage will be presented. Again, it is important to recognize that these are stages and not sequential steps.

- 1) Exploration and adoption is the period of time when the instructional leader and adoption team actively consider the innovation. During this time consideration should be given to the match within the organization and the available resources. It is also the phase when a formal decision is made to adopt the program or process; exploration ends with a decision. “The result of the exploration stage should be a clear implementation plan with tasks and time lines to facilitate the installation and initial implementation of the program” (p.15).
- 2) Installation is a preparatory stage where the tasks are defined in order to organize for implementation. It is at this time that leadership should secure any additional resources, including financial and human resources.
- 3) Initial Implementation can be equated with the beginning of change. It is when active engagement in learning is begun (the how) and support is given to the participants (the doing). At this stage, fear of change, inertia and investment in the status quo are combined with the difficult task of implementing something new. It is at this stage that many implementation processes fail; therefore, a supportive environment is necessary.
- 4) Full Implementation occurs when the new learning, the new program or the new process has been fully integrated into practice, including all associated policies and procedures. Participants are actively working to make full use of the innovation as part of the organizations typical functioning. Overtime the innovation becomes ‘accepted practice’ and viewed as how things are done within the environment. This stage of moving the

new program into accepted practice typically takes from two to four years (Fixsen et al., 2005; Hanna, 2003).

5) Innovation is the act of making changes or alterations to the innovation or to the process.

Once the practice has become part of ‘the way things we do things’ then modifications can be made to the program or practice. To avoid implementation drift, the program or process must first be implemented with fidelity to the origin intention.

6) Sustainability occurs when the new practice or program continues with fidelity, even though other change. Change will occur. Changes or interrupters will take many forms and can arise from multiple areas, such as leadership turnover, new teacher arrival, or funding source change. In order to sustain, policies must be established to maintain and support the program. The school must be aware of the “shifting ecology of influence factors” (Fixsen et al., p. 17) and adjust as necessary to sustain the program. “The goal of this stage is long-term survival with continued effectiveness of the implementation in the context of a changing world” (Fixsen et al., p. 17).

These six stages define the implementation process. It has been found that implementation requires a longer, multi-level approach with consideration given to the sharing of knowledge. Fullan (2010) suggested that there must be time for the acquisition of new skills and time to gain a full understanding of the innovation. To become fully sustainable, the implementation process can take between two to four years to move from exploration to the point of sustainability within the organization (Fixsen et al., 2005; Hanna, 2003; Wallace, Blase, Fixsen, Naoom, 2008).

Implementation is hard work. When engaging in change with the introduction of an innovation, the objective should be to fully implement as intended with active use by the

participants. Based on the work of Fixsen et al. (2005) there was “good evidence what does not work, reasonable evidence for what does work, and a clear lack of evidence in other areas” (p. 70). There is clearly more work to be done in this area.

There are two commonly used training methods when a new practice is being introduced, which have been proven to be ineffective. The two practices are information dissemination alone and training, no matter how well done, that is conducted separate from use and practice (Fixsen et al., 2005). These methods are supported in the classic study by Joyce and Showers (1995) where research found that teachers only transfer 5-10% of new knowledge with training alone. This stands in contrast to training that is accompanied with coaching. In this situation teachers retain 80-90% of what they learn (Joyce & Showers, 1995).

The Implementation Drivers

Therefore, to have an effective implementation practice, specific implementation components must be in place. Fixsen et al. (2005) referred to these components as the implementation drivers. The drivers move the process forward and are “integrated and compensatory” (Fixsen et al., 2005, p. 28) allowing for one area of weakness to be overcome by the strength of another area. The drivers are dynamic and can be managed in any order. While some of the drivers could be viewed as actions that already occur within the school, to be effective these actions must be viewed from the implementation mindset (Fixsen et al., 2005).

To understand the implementation drivers, three resources were considered. These three resources are built upon each other with some commonalities yet additional distinctions are evident. The earliest work is from Fixsen et al. (2005), who identified six core implementation components, which were referred to as drivers. The six drivers include staff selection, pre-

service and in-service training, ongoing consultation and coaching, staff and program evaluation, facilitative administrative support, and systems interventions. To understand the implementation drivers, Fixsen et al. (2005) defined staff selection as choosing the right staff members to support the change initiative. Pre-service/in-service training, consulting/coaching are the learning opportunities provided to ensure the implementation is begun as intended then continued with fidelity. Program and staff members must be evaluated on a regular basis to ensure that the work being done is effective and to identify any need for additional change. Therefore, if adjustments are necessary they can be done with intention and not by chance. Facilitative administrative supports are administrative based items that free up time to allow effective implementation. These items are action based and should include planning for team meeting time, scheduling of staff assignments, monitoring corrective actions and building knowledge base. System interventions are any actions that are necessary to keep the implementation process moving forward.

The State Implementation & Scaling-up of Evidence-based Practices (2011) also identifies implementation drivers. It should be noted that Fixsen is a contributor to State Implementation & Scaling-up Network. In this research, the drivers, as outlined above, are further defined and grouped into two categories: competency and organizational drivers.

According to the State Implementation & Scaling up (2010), competency drivers are mechanisms that help to develop, improve, and sustain the organizational ability to implement an intervention to benefit students. Competency drivers include carefully selected practitioners, training and/or coaching, and frequent performance assessment. The selection of staff members is guided by individual ability to carry out the new practice or program. Training is the provision for acquiring new knowledge regarding a new process or practice. Training is best conducted in

a safe environment with the provision for practicing the new skill. Coaching is an on-going component of implementation to bring about the desired results and includes items such as supervision, assessment, feedback and support. Built into the process must be a time for evaluation with the appropriate feedback to continue moving the process forward (State Implementation, 2010).

The second driver, as outlined by the State Implementation and Scaling-up (2011), is the organizational driver. The organizational driver is concerned with the creation and sustaining of a working environment that supports effective educational services. Organizational drivers include: decision support data systems, facilitative administration, and systems intervention. Decision support data systems include intermediate and longer term outcome measures, process measures (ensuring fidelity), and any socially important measures. Facilitative administration consists of the implementation team (e.g. School or District Leadership team) that relies on data and feedback to continue to facilitate the change. Additionally, this team must be in a position to revise policy and procedures to support the new way that work occurs in the organization. System interventions assure that operating conditions are established and remain in place (State Implementation, 2010).

In Michigan, there is a state network that draws upon the implementation research. The Michigan Implementation Network (MI3) uses the competency and organizational drivers but include a third driver, leadership. The leadership driver focuses on the technical and adaptive aspects of implementation, in order to support and manage the implementation effort (Michigan Implementation, 2011). The leader must have a strong knowledge of the technical features of the process being implemented, including the practical skills to carry out the new practice. Additionally, the leader must have adaptive skills, “to support personnel during times of change

and transition, to insure that all personnel are able to adjust to, support and manage the change that the adoption of new innovation brings” (Michigan Implementation, 2011, n.p.).

Considering these three resources and the collective, supportive nature of this work, it appears that the drivers can be organized into three broad categories: leadership, competency, and organizational. Taken as a whole these implementation drivers give structure to the implementation process. When planning for implementation, consideration must be given to each driver, as each influence the environment because of the forces that propel the change process forward (Fixsen et al., 2010).

Conclusion

Many forces are at play within the school, both external and internal and often coming from multiple areas and with varying influences on the educational system. As it became apparent that not all schools were adequately preparing students for academic success, federal and state policy changes became an external factor that impacted how schools function. A significant change occurred as a direct result of NCLB (2001) and the move toward a standards-based educational system and the related high stakes accountability factors. Furthermore, the transition to the CCSS will require change to the written curriculum. There have been other accountability measures and politically driven external factors pushing into the school environment that is creating the need for change.

Change is a dynamic process. Understanding the elements of change as they occur is necessary to understand and propel change within the organization. The instructional leader must consider the intended change and be guided by a strong moral purpose (Fullan, 2001; Hickman, 2010). Within an environment that has been set up for change, the classroom teachers

are brought into the process to support student achievement through the delivery of a strong and viable curriculum (Marzano, 2003).

Recognizing that external factors are pushing into the school environment and that change is a dynamic process, the internal factors that are at play must be recognized. The internal tensions are caused in part by the external forces, the potential for change and interactions between the principal and the classroom teachers. While there are many changes, the researcher is seeking to understand the implementation process as it relates to the use of an innovation to manage the written curriculum.

In order to stay current with educational standards and content expectations, principals and teachers are seeking ways to more efficiently manage the written curriculum and to ensure that the written, taught and tested curriculum is rigorous, coherent, aligned, and accessible to all. Curriculum has been defined as the framework that outlines the essential knowledge and skills for mastery of any content area, serving as a guide to instruction and learning, used by teachers and students in the creation and use of knowledge.

Acknowledging that in order to have lasting impact on learning and achievement, a clear, coherent curriculum must be in place (Schmoker, 2011), principals and teachers are seeking alternative means to manage the curriculum. Web-based curriculum management and design tools have emerged as a way to accomplish this task. This naturally leads to change as schools move to adopt and implement the innovation. The implementation process is the hard work of bringing about change within the organization. While many schools indicate that they have “implemented” a program, full implementation is often eluded. The literature on implementation is clear that there are not only distinct stages in the implementation process but that there are identified drivers that push the change forward (Fixsen et al., 2005; State Implementation, 2010;

Michigan Implementation, 2011). It is by understanding what drives implementation toward sustainability that positive, intended change can occur.

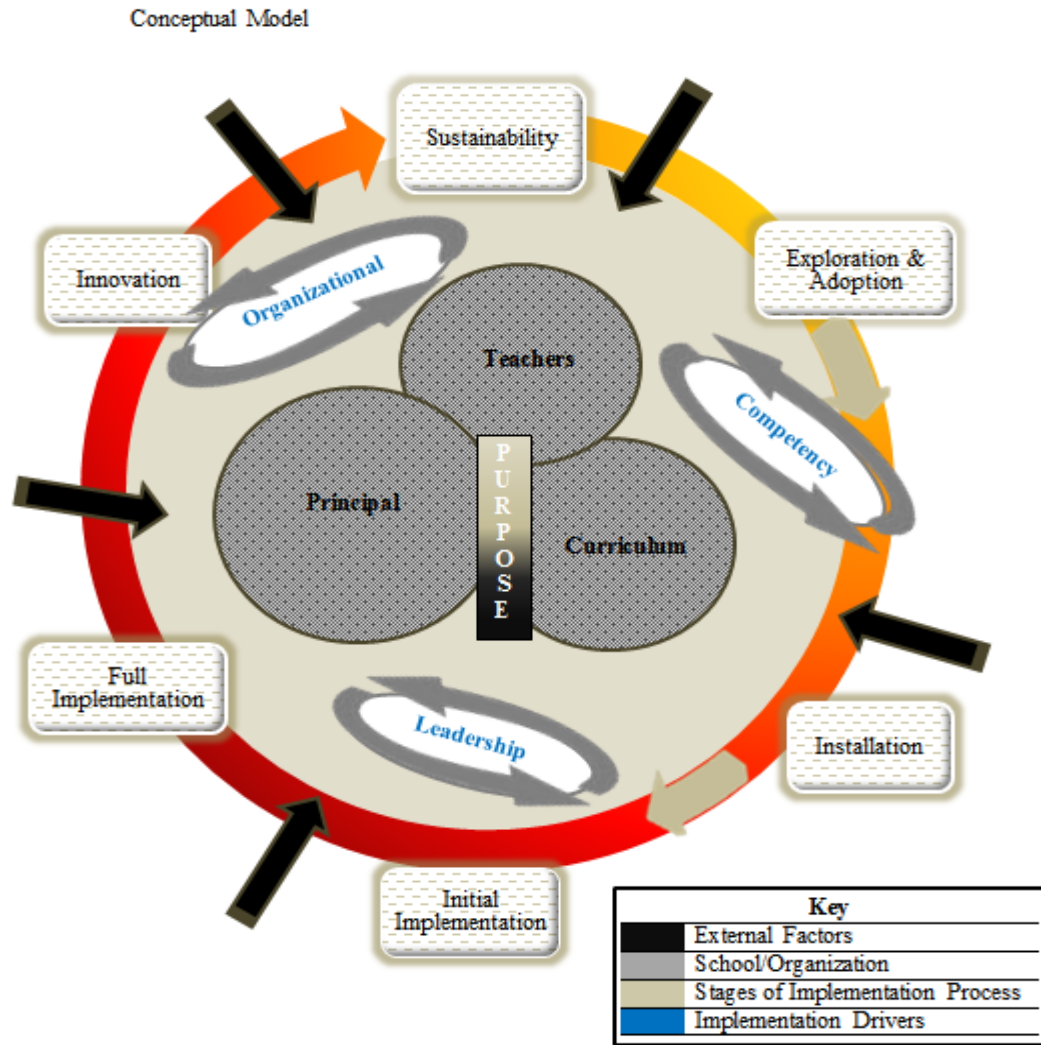


Figure 2. Conceptual Model of Research Study.
Adapted from Implementation research: A synthesis of the literature. Fixsen Naoom, Blase, Friedman & Wallace et al., 2005, The National Implementation Research Network (FMHI Publication #231).

A conceptual model (figure 2) was designed to depict the theoretical framework around which this dissertation was designed. The focus of this study is the implementation process as it

relates to the adoption and use of an innovation. The implementation process is a series of stages that begin with exploration and adoption and, after time and hard work, may move to the sustainability stage (Fixsen et al., 2005; Hanna, 2003). The implementation process is cyclical and recursive, often moving between stages. The implementation process is set in motion in response to influencing change factors that come from external forces pushing into the school organization, as well as, from internal factors that are active within the school.

The external factors can come from many areas. In the current educational environment, state and federal mandates and local policy decisions push into the school, creating the environment for change. Internally, the principal and classroom teachers respond to the external forces, and tension is created that is conducive to change. Drawing on the work of Hickman (2010) and Fullan (2001) change is motivated because of a compelling or moral purpose. The moral purpose influences the climate and pushes the threshold for change, creating a change environment. It is within this environment that the instructional leader plays a critical role. The leader must be aware of the causes for change, but must be mindful of the influences that are at play, in order to navigate the dynamic environment.

The concept of instructional leadership must be considered in relation to the impact of others. The leader's actions have consequences on others, both in and out of the school. The leader is in a position to set up interdependent, interactive leaders and followers (Hickman, 2010). The intentional actions of the leader can result in pushing the desired change.

Once the change environment has been established and the implementation process put into place, the implementation drivers keep the system in motion. The drives are leadership, organization, and competency. The leadership driver is the ability of the leader to guide and manage the change effort. The leader must have the technical skills to push the innovation

forward as well as the adaptive skills to make adjustments based on social interaction. The organization must have accountability measures, data systems, and allow for administrative support. Competency measures build capacity and are achieved through professional development activities. One of the primary competency builders is increasing the time that teachers have to be part of learning groups, most often accomplished in grade-level or team meetings and supported by coaches. It is these drivers that work within the change environment and continue to push the innovation forward. Working in cooperation with each other, the drivers continually move the innovation forward toward full implementation and ultimately to sustainability.

CHAPTER III

METHODOLOGY

Introduction

School environments are dynamic. New programs and innovations are often introduced into the school, with the expectation that professionals will embrace new processes and programs and implement with fidelity. Implementation is expected, but to what degree? This research was designed to understand the implementation process as used by principals and teachers, “to improve existing knowledge, policy and practice” (Basit, 2010, p. 1). The purpose of this dissertation is to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice.

Chapter three details the research design, methodology, research questions, procedures for data collection, and processes that were used in data analysis. The research investigated the implementation processes in a school as it specifically related to the implementation of the Curriculum Crafter Tool. At this stage of the research, implementation is defined as a specific set of activities or programs which puts into practice an activity or program of known dimension (Fixsen et al., 2005).

Research Questions

The purpose of this dissertation is to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. The major research questions informing the inquiry were:

- How does the school implement an innovation?
 - a. How did the school choose this innovation?

- b. What drives the innovation (new practice) forward?
 - c. What are the barriers to implementation?
- What is the role of leadership in this change?
 - a. What is the leader's role in change in relation to the implementation process?
 - b. How has the implementation process influenced principal's practice?
- How does the innovation influence instructional and professional practice?
 - a. In what ways has professional practice changed as a result of this innovation?
 - b. How has the innovation changed instructional practice?
- What can be learned from implementation of the innovation that can inform others in policy and practice?

Research Design and Rationale

This study lends itself to a qualitative inquiry as it seeks to discover how participants at the selected site implement an innovation and to better understand how this implementation influences professional practice. Qualitative inquiry is broadly defined as “any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification” (Strauss and Corbin, 1990, p. 17). Qualitative inquiry has a focus on data in the form of words; words based on interviews, discussions, observation, or gleaned from documents. The focus is on the words that are well-grounded, descriptors that are rich, and explanations (Miles & Huberman, 1994). Qualitative inquiry seeks to gain a deep understanding of the participant's experience, to attach meaning to their actions (Patton, 2002) and to discover the underlying, complex meanings through intense and prolonged contact in the field or life situation (Miles & Huberman, 1994). It is an attempt to capture perceptions “from the inside” through

attentiveness, empathetic understanding and bracketing preconceptions about the topic (Miles & Huberman, 1994).

Qualitative inquiry focuses on the social interactions of participants as they occur in the natural setting, their real world (Denzin & Lincoln, 2008). The design strategy will use naturalistic observation of ordinary events and “seek greater understanding” of the case (Stake, 1995, p. 16). As was true in Miles and Huberman (1994) and Patton (2002), this study was a real-world study, as it naturally unfolded in the world of the participants. Also like Marshall and Rossman (1999) the researcher sought to understand, to answer questions about the participants, and to the contexts in which they work; the participants lived experiences. Further, Denzin and Lincoln (2005) provided a basis for this researcher to attempt to make sense of, or interpret a phenomenon in terms of the meanings people bring to the situation.

A systematic inquiry, guided by the research questions, provided information to illuminate the implementation process. It was by examining this phenomenon through an in-depth study (Creswell, 2003) that new knowledge was generated in order to improve existing knowledge, policy, and practice and ultimately improve the status quo (Basit, 2010). In order to understand the implementation process and the change associated with the introduction and use of an innovation, a method that allows for exploration and understanding of the phenomenon was employed. Qualitative case study was the appropriate methodology because the participants, the building principal, and the classroom teachers, were interviewed and observed within their natural context with the intent to explore and better understand how they work and the impact of this innovation on that work.

Case Study

Case study is a social inquiry strategy. Case study research is an empirical inquiry that investigates a contemporary phenomenon within a real-life context (Yin, 1984). The real life context of this case study is a K-12 public school academy. The intention is to capture the unique characteristics of this academy. Case study is useful when the aim is “to capture... unique variations... from one program experience to another” (Patton, 1990, p. 54). It is the study of the “particularity and complexity of a single case, and coming to understand its activity” (Stake, 1995, p. xi). The complexity is the implementation process. In this qualitative case study, the researcher aims to capture how a school implements an innovation and to better understand how this innovation changes instructional and professional practice.

In this case study, the researcher “explored in-depth a program, and the associated process of the participants (Creswell, 2003). As demonstrated by Basit (2010), the researcher took an in-depth look with a particular focus on “real people in real social settings” (p. 19) in order to gain better understanding of the complexity of the implementation process. Like Stake (2005), this study went in-depth within a single K-12 public school “to optimize understanding of the case” (p. 443). Interviews, observations, and review of site documents were utilized to delve into what really occurred within the setting and to understand the dynamic nature of the implementation process. The process of using multiple perspectives in the social setting assisted in data triangulation. Through these interactions, the deeper meaning associated with the process was explored and illuminated (Basit, 2010).

Researcher as Instrument

In this qualitative inquiry, “the researcher is the instrument” (Patton, 2002, p. 14). Similar to Miles and Huberman (1994), the researcher acted as an observer, data collector, and data analyst, always striving to gain a holistic overview of the context as it related to the use of the tool in the selected academy. The researcher was the instrument in both data collection and data interpretation, reflecting the human side of qualitative inquiry. The credibility of this research rests on the skill, competence, and rigorous stance of the researcher (Patton, 2002).

The researcher recognized her perspective not only as an educator, but also as an authorizer, who has had contact with schools that have implemented the innovation, the Curriculum Crafter Tool. She has had opportunities to observe the various ways that schools put the tool into practice, see how trainers guided schools in how to use the tool and then observe how teachers used the tool in the building. This observation led to the formation of questions about the effectiveness of these methods and to wonder why teachers would discontinue use. She does hold presumptions on how implementation should take place. Yet, as a researcher, recognized her thinking and opinions about the implementation process and was cognitively aware of the potential for that thinking to interfere with her perceptions of the implementation process.

The researcher explored the implementation process in a K-12 public school academy that had formally adopted this innovation. The researcher made personal contact with the building principal and the classroom teachers. In this context, the role of participant observer was taken, valuing the participants and their unique characteristics. Moustakas labeled this view as “‘being-in,’ another’s world, immersing oneself into another’s world by listening deeply and attentively so as to enter into the other person’s experience and perception” (as cited in Patton,

2002, p. 53). Within this process, the researcher's biases and prior knowledge were suspended (Miles & Huberman, 1994) in order to attempt to gain understanding.

As a researcher, Patton's (2002) stance of "empathic neutrality and mindfulness will be adopted, which is an emphatic stance in interviewing, seeking vicarious understanding without judgments [neutrality] by showing openness, sensitivity, respect, awareness, and responsiveness; in observation it means being fully present [mindfulness]" (p. 40). In this stance, the middle ground between becoming too involved, which can cloud judgment, and remaining too distant, which can reduce understanding will be considered (Patton, 2002). The researcher sought to understand the implementation process as it unfolded within the school, with acknowledgement of different perspectives and to be impartial to emerging evidence. To aid in neutrality, the researcher adopted a reflective practice, being aware of personal perspectives, views and the potential influence on the inquiry. Full engagement was a guiding consideration.

The research was conducted in a highly structured manner in order to promote a high level of trustworthiness. Trustworthiness ties directly to the competence and integrity shown by the researcher, both in procedure and practice. The researcher sought to be honest, reliable, and reflective in reporting results based on empirical findings. These findings are grounded in the experiences and observations, supported by field and reflective memos.

Site and Participant Selection

In qualitative inquiry, the selection of the research site and participants was an important step to enhance the quality and credibility of the research design. A purposeful process was utilized. Purposeful sampling involves the selection of an information-rich, illuminative case for

in-depth study “aimed at insight about the phenomenon, not empirical generalization from a sample to a population” (Patton, 2002, p. 40).

The case study was bounded by the selection of the research site that met defined research criteria. For this qualitative inquiry, the research criterion was a K-12 charter or traditional public school, in the state of Michigan, which had adopted the innovation, the CCT as a curriculum management and design tool. This tool had to be in use by the school to store, update, and provide evidence of alignment for the school’s curriculum (*Curriculum crafter*, 2008). In addition, the selected research site must have had continuous enrollment with CCT since its the introduction in 2008.

The Intermediate School District (ISD) assisted in site selection by providing assistance in identification of schools that have entered into a license agreement for the CCT with the ISD. This agreement grants “a personal, nonexclusive and non-transferable Access License to access and use the Curriculum Crafter Tool” (Master License Agreement, p. 2). The identified schools had continuously maintained enrollment as evidenced through payment of a yearly maintenance fee. An informational phone interview was conducted with the manager of the CCT, seeking to gain an understanding of the history of the tool and usage (Appendix A). As of March 19, 2012, there were approximately 380 active clients enrolled (personal conversation, March 18, 2012). It was from this group that a research site was selected.

To find an information-rich case with outstanding success (Patton, 2002) in the use of a curriculum management and design tool, an informational survey was utilized. An informal conversation was held with the Director of the CCT, with her perspective on schools that were using the tool with a high level of integrity and implementing with fidelity to the intent of the CCT. As a result of this discussion, the Director endorsed the survey, granted permission, and

made arrangements with the ISD technology department to facilitate sending the informational survey (Appendix C) to all active CCT clients. The email invitation was sent (Appendix B) asking for participation in an electronic, ten question informational survey (Appendix C). The purpose of this survey was to gather data on the perceived level of implementation, the provision of professional development, and a willingness to participate in the research.

The informational survey generated 132 responses. Based on the responses from this informational survey, the list of potential participants was condensed to 19 schools that met the research criteria and expressed interest in participation in the study. Once the list of schools was narrowed, consideration was given to site accessibility, permissions, and geographic proximity. As noted by Marshall and Rossman (1999), a realistic site was one where the researcher could gain entry with the high probability of rich mix of processes, people, programs, and structures of interest. The selected site required geographic proximity to allow the researcher access for the necessary visits and subsequent interaction with the participants. However, the site was not selected for convenience, but as recommended by Patton (2002), for the potential to provide an information rich, illuminative case. Additionally, as suggested by Fixsen et al. (2005), this site held the potential to gain the greatest understanding of the conditions and practices that exemplify full implementation.

Once the list of potential sites was established, the building principal or curriculum director was contacted and an informal conversation was conducted. It was during this phone call that the researcher explained the purpose and scope of the research. The researcher also inquired about the current level of use to ensure the site would provide a rich source of data, discussed the data collection procedure for on-site visits, and the interview process. Finally, the

research made a request for a verbal agreement to allow the classroom teachers to participate in the study.

Once the research site was determined, the researcher contacted the superintendent of the district. An email that included an explanation of the purpose of the research and a copy of the request to conduct research at the building (Appendix D) was sent. The researcher secured a signed agreement; however, because the organization did not have any internal Institutional Review Board (IRB) procedures, an organizational participatory letter was not secured.

Upon receipt of the superintendent's written permission to conduct research at the building, an initial informational meeting was set-up with the building principal. This meeting was conducted through a phone call to accommodate the time constraints of the building principal. During this phone call the details of the study were shared, the boundaries of the study were defined, and questions were answered. Furthermore, the researcher established specific time frames for on-site access. Included in this discussion was a review of the procedures for maintaining confidentiality, sources, and the desirability to review draft documents for accuracy (Stake, 1995). It was also reinforced that confidentiality would be maintained and a pseudonym would be used for the Academy and the participants. At that time, a request was made and granted for access to any on-site documents that are applicable to this research.

While the site was "purposefully selected" (Patton, 1990) and considered as a case from which to maximize what can be learned (Patton, 2002; Stake, 1995), the participants were individually invited to participate (Appendix E). All participants were invited to interview with an email invitation. The invitation included a copy of the informed consent form. Informed consent means participants agree to "take part in a research project after they have been fully informed of the facts" (Basit, 2010, p. 60). Informed consent brings the participants into the

decision making process, outlines expected involvement, provides the intended use of the data, and recognizes any risks involved (Basit, 2010). At the time of the interview, the participants were provided with a paper copy of the informed consent form, with an explanation that participation was voluntary and participants were free to withdraw at any time without risk (Appendix F). Signed consent forms were obtained from each participant.

Data Collection

This case study was bounded in time. In order to determine what really happened in the world of the participants, the key methods of qualitative inquiry, interviews, observation, and document collection were utilized. The use of multiple sources of data supported data triangulation during the analysis. The researcher conducted the case study in a one month time frame with interviews conducted, observations recorded, and on-site documents collected. Enough time was spent to procure the answers to the research questions (Patton, 2002) and to gain understanding within context. Additionally, time was allocated for the opportunity to return to the setting as dictated by analysis and for the purpose of member checking. Member checking was done through phone calls and emailing interview transcripts to individual participants.

Interviews

As demonstrated by Patton (2007), the purpose of the interview was to allow for the entry “into the other person’s perspective” (p. 341) to gather their stories. Wilkinson and Birmingham (2003) suggested that interviews allow the researcher greater insight into the meaning and significance of what was happening in the environment. Patton (2002) suggested three alternative approaches to collecting qualitative data through open-ended interviews: “the informal conversational interview, the general interview guide, and the standardized open-ended

interview” (p. 342). Each approach serves a different purpose, but can be combined to allow the interviewer to systematically gather information but also to remain flexible to expand on the data collected. Patton (2002) suggests that all interviewing serve the purpose of asking genuine open-ended questions with a commitment to letting the participants express their perspectives, in their words based on their environment.

For this research study, qualitative data were gathered through a combination of interview approaches. The researcher utilized the interview guide format, and allowed for the potential to follow areas of inquiry. As Patton (2002) suggests, the interview guide approach can be conversational, yet always listening for the dynamic nature of the process to unfold. As confirmed by Lincoln and Guba (1995), the data collection process was fluid or recursive in strategy, following the lead of discovery.

In anticipation of interactions with the participants, an interview protocol (Appendix G) was developed. Additionally, the researcher wrote open-ended interview questions for the principals (Appendix H) and for the classroom teacher (Appendix I). To ensure that the interview questions were relevant and related directly to the research questions, a cross-walk table was also created (Appendix J). Since the interview questions were written in advance of the on-site visit, the researcher was able to provide the principal explicit knowledge of the research questions.

Seventeen interviews were conducted with the building principals and the classroom teachers. All interviewees were adults who agreed to the interview. All interviews were conducted on site at the Academy; meeting space was determined by the interviewee and to allow for a quiet location that was comfortable. As a wrap-up question, interviewees were asked to identify other people who were thought to be able to contribute to this research. These people

were contacted with a request for an interview and subsequent interviews were conducted.

While the intent of this study focused on the building principals and the classroom teachers, if other potential contributing participants had been discovered during this process, they would be contacted for possible inclusion. However, no other participants were discovered for interview.

The interview questions were written based on the research questions with the objective of gathering information to directly inform the study. All interviews were conducted on-site at the school with a single interview lasting from 25-30 minutes. During the interviews, the researcher respected the participant's perspective on the phenomenon. (Marshall & Rossman, 1999). Additional questions were asked for expansion or for clarification of what was said in the interview.

It is the intent of conducting interviews to thoroughly understand (Stake, 2005) and to accurately explore, record, and then analyze the processes, procedures, and perspectives of the school personnel in relation to the implementation process. All attempts were made to capture written "thick description, conveying to the reader what experience itself would convey" (Stake, 1995, p. 39) through the words of the participants. In the interviews, the conversations were recorded using a digital voice recorder. To remain attentive to the words of the participants, in addition to a digital recording, the researcher captured written notes. The researcher transcribed the recorded interviews, word-for-word, in preparation for analysis. The notes and transcribed interviews were used in analysis to seek to understand the participant's thoughts and perspectives. The researcher shared the transcribed interviews with participants.

Observation

Understanding that observational data must have depth and detail (Patton, 2002), observation will be an essential part of the fieldwork. Observation will take on two forms, general observation of the school environment and formal observation of any applicable meetings or events that aids in understanding.

From the moment the researcher entered the school campus and during interactions with school personnel, she was attentive to the environment, noting the surroundings, as well as the overall atmosphere. The researcher was mindful of the people and how they interacted within the context and was particularly aware of any activities that could be associated with implementing the curriculum management and design tool and any activities that were related to the working with, updating, and aligning of the written curriculum.

During field work, a written record of all observations was kept in the form of field notes. The opportunity for observation in this study was limited. During the time of this study at the building, there were no curricular staff meetings, curriculum committee meetings or other meetings that would serve to add to the knowledge of professional practice related to how the curriculum was implemented.

Document Collection

Document collection was used to provide supporting evidence as an aid in understanding the implementation process. Potential documents identified could include public records, private documents, video, photographs or other related artifacts. The school website was searched as many of the documents included here are available in this format. The specific document types were, but not limited to:

- transition and implementation plans;
- implementation timelines;
- school website;
- school improvement plan;
- written curriculum documents;
- meeting minutes (school team meetings, group meetings, leadership team);
- school or teacher-generated documents (such as meeting agendas or minutes); and
- reflections (e.g. teacher's journals).

The researcher anticipated that most of the documents would be created within the school, and therefore, were socially constructed. In order to make sense of the documents, the research sought to understand who and why the documents were created. Consideration was given to the significance of the documents, what was written, but also to what a document might omit about a specific period, event, or phenomenon (Basit, 2010). Documents were analyzed for relevance to this study. For example, a template for capturing the unit construction was provided by several teachers. The template was required for submission of the unit plans and was in use by teachers. In seeking to understand the intention of the original document, teachers were asked about the use of the document. It was the expectation of leadership and voiced by teachers that submissions follow the template format.

Information collected through artifact analysis will be held in confidence; with no revealing information shared with any person or organization. In all instances, the artifact(s) remain under the researchers control and will, if disclosed, be presented in a manner that does not reveal the subjects identity, except as may be required by law. Moreover, in order to make sense of collected documents, it was linked to other sources, the interview or observation. As

note by Basit (2010), document analysis should not be held in isolation, but used as a source of triangulation with primary data, offering another perspective on the investigation.

Field Notes and Memos

Field notes are a critical component of qualitative inquiry. Field notes contain the observational descriptions as they occur in the field (Patton, 2007), a reflective journal kept by the researcher to capture “contemporaneous reflections” (Basit, 2010, p. 153). The purpose of field notes in this study was to record observations, impressions, and capture rich, thick description. This rich, thick description came from the actual words of the participants, providing a basis for deep understanding into the participant’s world (Patton, 2002; Basit, 2010). By capturing this data, the researcher was able to recall significant details as she returned to her field notes.

Another critical component, as noted by Patton (2007), of field note generation is the observer’s feelings, reflections, and the significance of what has been observed. The researcher’s field notes provided the basis for the representation of the meanings as expressed by to the participants. All notes were recorded and collected as data rich, descriptive field notes. All notes were recorded at the time of observation being mindful of the relevancy to what was occurring in the setting, but without judgment while on site. Field notes contain identifying information, including who (attendees), what (physical setting), where (location), why (what activity took place), and the date (time).

For the qualitative researcher, memo writing is another important aspect of data collection. Memos are a specialized type of written record, a working and living document, (Corbin & Strauss, 2008) conceptual in intent, and primarily written to self. Memos are the

documentation leading to understanding of the environment, the concepts, and the people within the school. The memo process was a “rudimentary representation of thought” (Corbin & Strauss, 2008, p. 118) that was used in this study to come to a ‘real’ understanding that was only available as a result of a reflective process.

Memo writing was an integral part of this research. Memo writing was an active process being utilized to capture emerging themes, to track ideas, to make connections, and to record impressions. The memo process was critical to capturing ideas and the thinking of the researcher in the data interaction process. This process enhanced the quality of the research. The memos generated were conceptual in nature (Corbin & Strauss, 2008) reflective and analytic, and included notes-to-self. All memos contained a date, heading, and any applicable quotes or spoken phrases. As necessary, to enhance the memo process, diagrams were created. Memos have been captured and recorded within the NVivo software, which assisted in a systematic and organized review process (Strauss, 1987).

Quality

Qualitative researchers are “guests in the private spaces of the world” (Stake, 2008, p. 140). The approach that the researcher took sought to provide honor and quality in the world of the participants. In order for qualitative research to promote quality, the research must be approached from a perspective of credibility, trustworthiness, and dependability.

According to Patton (2002), credibility depends on three distinct but related inquiry elements: a rigorous method, researcher credibility, and portraying the value of naturalistic inquiry. In this research, rigor was established by asking questions and collecting evidence of implementation of an innovation. The validity and reliability of the findings were supported

through the use of data triangulation. The data did not come from a single source but from multiple sources, all within the context of the K-12 public school academy. A total of 17 interviews were conducted with transcripts and analysis provided to participants to serve as a member check.

The researcher as instrument was foundational to this qualitative inquiry. To establish researcher credibility information about the researcher's background, knowledge, and experience was shared with the participants. The researcher was able to take a confident stance with the participants because of her experience working with curriculum, curriculum audits and evaluations as well as holding an extensive knowledge of the underlying concepts related to curriculum development. Additionally, the researcher's personal experience and familiarity with the research topic added credibility as the researcher sought to accurately represent her background knowledge in relation to the use of a curriculum management and design tool.

Credibility was further enhanced by holding a "philosophical belief in the value of qualitative inquiry, a fundamental appreciation of naturalistic inquiry, qualitative methods, inductive analysis, purposeful sampling and holistic thinking" (Patton, 2002, p. 553). The methods and findings of this research hold to naturalistic inquiry. The research took place in a real-world setting of a K-12 public school academy. All contacts with participants were done in such a manner as to be free from manipulation and to gain an understanding of the complex nature of the social setting in order to understand the phenomena.

The research was conducted in a highly rigorous, trustworthy manner. Lincoln and Guba (1985) defined trustworthiness as the "quality of an investigation (and its findings) that makes it noteworthy to audiences" (p. 299). Trustworthiness is the extent to which these findings are trusted, and accurately represent the meaning as presented by the participants. The researcher

sought to ask questions and gain understanding of the implementation process that was reflected in this analysis. To add to the trustworthy stance, the researcher sought verification of data to support a quality analysis.

Dependability was established through the methods of the researcher. The researcher was honest, holding out a high degree of integrity in all actions and interactions with the participants. Field notes were written to capture impressions and to record changes as they occurred during the research. These notes were used to ponder on the findings.

The process was engaging and enlightening. And the researcher learned much. The greatest realization for future research was the researcher learned “how to do it better next time” (Patton, 2002, p. 588).

Ethical Considerations

Ethical considerations are of utmost importance in qualitative research, and particularly in research involving human subjects. Qualitative inquiry is personal and naturalistic, allowing the researcher into the real world where people live and work (Patton, 2002). The qualitative researcher must take in the ethical considerations surrounding the research.

To gain understanding of the ethical considerations surrounding social research, the Collaborative Institutional Training Initiative (CITI) basic and refresher courses were successfully completed. Prior to conducting any research, approval was sought through the Institutional Review Board (IRB). Because the proposed research project involved the use of human subjects, through interviews, observations, and engagement in the school, the rights of the participants were protected. No special populations were used in this study.

Patton (2002) presented an ethical issues checklist as a means of guiding the researcher in thinking through the ethical considerations. The ethical considerations were risk assessment, explaining purpose, obtaining informed consent, and ensuring confidentiality. The researcher had a responsibility to protect subjects from risk. Risks include “physical or mental discomfort, harm, or danger, social embarrassment, economic burden, or legal jeopardy (Central Michigan University, 2008, p. 3). This research was designed to treat all individuals fairly. All potential risks were considered and it was determined there are no perceived or real risks.

Information about the scope of this research was provided through a written informed consent document (Appendix F) and subsequent discussion. The informed consent document was emailed to all participants prior to the scheduled interview, with the request for participants to review the document. Additional copies of the informed consent document were made available during initial interactions to ensure that participants understood the benefits and risks of participation and to secure proper consent. The researcher stressed that participation in this research was voluntary and consent could be withdrawn at any time without consequence.

Participant confidentiality was considered. Participants had the right to confidentiality as well as the ability to remove themselves at any time from study. Accommodations were made to ensure that the identification of all participants was held in the strictest of confidence. To maintain participant confidentiality at the time of the interview, participants were assigned an interview number. This number was recorded in a participant log, which was kept in a secure location by the researcher. To further protect privacy of individual, participants were asked to keep comments to a general nature so as not to identify other participants.

In consideration of participant privacy, all audio recordings were identified with the individual number. The researcher intended to have the recordings transcribed. In preparation a

Research Assistance Confidentiality Agreement (Appendix L) was prepared. This form was not used because the researcher transcribed the recordings. Once the audio recordings were transcribed, the recordings have been stored in a secure location. The recordings will be kept until the study is finalized. There are no plans to use the audio recordings for any purpose other than stated in this research.

Procedures for Treating, Coding, and Analyzing Data

In qualitative analysis, data collection is an ongoing process. Due to the fluid and emergent nature of naturalistic inquiry (Patton, 2002), the line between data collection and data analysis does not always constitute a clear division. During the data collection process, separate field notes were kept to capture any emerging impressions and ideas.

All interviews were digitally voice recorded using a voice recorder or a text recorder on an iPad. The voice recordings were transcribed into a full text document so that the document can be stored electronically or printed in a hard paper copy. The transcribing was done accurately following a verbatim format. Names were anonymised at the transcription stage and the interview number code was used to organize the files. Once the data had been transcribed into an electronic format, the data were uploaded and organized within NVivo 10 qualitative data analysis software. This software was designed to assist the researcher in the sorting, organizing, and managing complex qualitative data. All interviews, field notes, and memos were uploaded into NVivo 10 software. Additionally, the collected documents were captured through scanning and digitizing. The specific details of coding will follow, but all coding was done within the NVivo qualitative data analysis software. An organizational system was developed to manage

the information, which included written definitions of concepts and themes to support the coding structure.

Bogdan and Biklen (1982) defined qualitative data analysis as “working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (p. 145). Analysis transforms data into findings (Patton, 2002). All collected data was considered for analysis. According to Miles and Huberman (1994), “Coding is analysis” (p. 56); coding is the general term for conceptualizing data, raising questions, and giving provisional answers about categories and their relationships (Strauss, 1987). Analysis of the data were an ongoing, iterative, and dynamic process that occurred during and after the study was conducted. Analysis included all interviews, documents, website information, and memos. All elements were intended to contribute to researcher understanding. True qualitative inquiry is based on the premise of ongoing data analysis, with this analysis driving further investigation.

Miles and Huberman (1994) differentiated between coding and the analysis, with codes as the “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study” (p. 56). Codes are most often a “word or short phrase that symbolically assigns a summative, salient, essence-capturing attribute” (Saldana, 2009, p. 3). Saldana (2009) further defined a code to represent and capture a datum’s primary content and essence. Additionally, Miles and Huberman (1994) identified three types of codes: descriptive, interpretive, or pattern codes. Codes pull together a great deal of data, making analysis possible.

One method to begin the work with codes is the creation of a “start list” (Miles & Huberman, 1994, p. 58). Using this concept, a list of codes was created based on ideas that emerge from the research questions and the conceptual framework. An important consideration

in creating codes was the structural order. Miles and Huberman (1994) suggested keying the codes to the research questions. This system should be viewed as a “conceptual web, including larger meanings and their constitutive characteristics” (Miles & Huberman, 1994, p. 63). In this research, the researcher created a short list of ideas and concepts that were central to the study. This list was created after being in the field and served as the starting point for analysis. Further codes emerged as data analysis took place.

Understanding the recursive nature of qualitative data analysis, the researcher conducted subsequent reviews of the data, which revealed other relationships and connections. Upon discovery, themes were recorded and coded as they emerged from the data. Further additional reviews were conducted, with the researcher always attempting to remain open to new ideas. Codes were evaluated for applicability and the possibility of needing to be redefined. The ‘in-vivo’ codes or the words or phrases used repeatedly by participants and specific to the school were noted and considered within the coding structure (Miles & Huberman, 1994).

Data triangulation was the process where multiple data sources were used to gain deeper understandings associated with the research. Triangulation seeks “to capture and report multiple perspectives rather than seek a singular truth” (Patton, 2002, p. 546). As Miles and Huberman (1994) purported, data triangulation is “not so much a tactic, as a way of life” (p. 267), with data chosen for “different biases, different strengths and to complement each other” (p. 267). Within this research, multiple data sources, interviews, observations, and documents were evaluated.

Reflexivity was being aware of self in the process of conducting qualitative inquiry. According to Patton (2002), it is “emphasizing the importance of self-awareness, political / cultural consciousness and ownership of one’s perspective” (p. 64). Reflexivity involves self-questioning, self-understanding, and continually having the internal conversation of what is

known and what is not. Ongoing reflexivity aided in “managing reactivity and bias” (Leitz, Langer & Furman, 2006) as the researcher sought to consider the feelings and perspectives of the participants in light of her own beliefs. The researcher benefited from being aware of the need to be attentive to and mindful of her cultural and social origins. In the process, the researcher was continually aware of the perspective and voice of the participants (Leitz, Langer & Furman, 2006; Patton, 2002).

Data Presentation

A case study report was generated to present the findings. This report is descriptive in nature and attempts to portray the voice of the participants. The findings were based on the research questions, giving consideration to the stages of implementation and how they align with Hickman’s (2010) analytical elements of change.

The next two chapters present the findings from this study. Chapter four presents the collected data. Chapter five presents a discussion of the findings, examination of the implications, presentation of a critique, suggestions for future research, and offers a conclusion.

Conclusion

The methodology best suited for this inquiry was a qualitative case study. The site was selected from a group of K-12 public schools that have implemented an innovation, specifically the CCT. The participants were the building principals and the classroom teachers. The research was conducted in a highly structured, rigorous manner, followed qualitative methods and guided by the written research questions. The fundamental methods of qualitative inquiry, interviews, observation, and document collection were utilized in this inquiry, while ethical considerations guided the research. The data were coded and analyzed to better understand the implementation

process and how implementation of this innovation impacted instructional and professional practice.

CHAPTER IV

PRESENTATION OF DATA

Introduction

In this dissertation, the researcher employed case study methodology to analyze principal and teacher perspectives on the implementation process as it relates to a curriculum management and design tool. The purpose of this qualitative study was to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. To understand the principal and teacher perspectives, data were collected through participant interviews, site visit observations, telephone conversations, document analysis, website review, public data evaluation, researcher memos and field notes.

This chapter presents a discussion of the findings and emerging themes, organized by the research questions. To frame the background context of this study, the research site will be described. Next, the findings as related to the individual research questions will be presented. To remain true to qualitative research, every attempt has been made to capture written “thick description, conveying to the reader what experience itself would convey” (Stake, 1995, p. 39) through the words of the participants. After the data presentation, and as a result of interacting with the data, emerging themes will be offered.

Research Site

In order to select a research site that would assist in better understanding how a school implements an innovation an informational survey was conducted. The innovation is the Curriculum Crafter Tool (CCT). The ten question survey (Appendix C) was emailed to those

with an administrative role designation in the CCT. One hundred and thirty-two people responded to the survey, of which 124 indicated that the CCT was in use in the building (Appendix K). Seventeen respondents indicated that the school had used the CCT for four years or more. Eleven schools responded “yes” as willing to participate in a study; so from these 11 schools, a research site was selected.

After applying the research criteria, the researcher placed phone calls to nine schools. In this process, some schools self-selected out of the research, some did not meet the criteria and were eliminated. One research site was selected.

The Academy

The research site was a K-12 public school academy that will be referred to using the pseudonym Windy Hill Academy (Academy). The researcher chose this site because the Academy met the established research criteria: a K-12 public school, in the State of Michigan, adopted the CCT, and maintained continuous enrollment since 2008.

Windy Hill Academy was a Michigan public school academy that has been in operation since September 1994. According to the website, the Academy serves approximately 550 students from pre-kindergarten to grade twelve. The Educational Program document indicated the Academy promotes academic achievement, respects the environment, encourages creativity, develops citizenship, and inspires strong character. The Educational Program was designed to provide students with knowledge, skills, and attitudes to exceed the performance and citizenship measures established by the Academy Board. The Academy actively seeks ways to integrate environmental awareness and responsibility within the general education program. All aspects

of environmental education are addressed, including sustainable living practices, renewable energy studies, natural habitat protection, and ecosystems development.

According to the website, the curriculum was based on the state identified grade level content expectations plus additional content as deemed necessary by the Academy. The Academy established graduation requirements that are beyond the State of Michigan requirements. The Academy intentionally adds rigor through additional course requirements in order to better prepare students for college, career, and 21st century living. The Academy uses the Curriculum Crafter Tool (CCT) and the embedded curriculum as an innovation in practice. This web-based curriculum tool contained the Kent County Collaborative Core Curriculum (KC4) as well as content based on the Common Core State Standards, as revealed in Academy documents. The Academy has modified the existing curriculum, as well as developed new curriculum in order to create a coherent plan for instruction and learning.

The No Child Left Behind (NCLB) Act of 2001 requires that Adequate Yearly Progress (AYP) be calculated for all public schools (Michigan Department of Education, 2011a). The school must attain the target achievement goal in reading and mathematics, or show improvement (safe harbor). A school must test at least 95% of the students and must meet or exceed the other academic indicators: 80% graduation rate for high school and 90% attendance rate for elementary and middle school. These achievement goals must be reached for each subgroup (Michigan Department of Education, 2010). The focus on academic achievement has resulted in the Academy attaining the state target achievement goals in reading and mathematics.

As reported in the Academy's 2011-2012 Annual Education Report (AER), 85% of students in grades 3-12 are proficient in reading/English language arts (state proficiency target: 82.9%, based on original cut scores) and 64.2% are proficient in math (state proficiency target:

57.5%). The AER reported that the ACT composite score increased three full points from the previous year but did not show the actual scores. The attendance rate, the other indicator for school success, was 90.9% (objective 90%) and the Academy exceeded the state target. The graduation rate was 51.52% (objective 80%) and the Academy did not meet the state target. The Academy did not make AYP in the 2011-2012 school year because they did not meet the target for graduation. However, the Academy had made AYP every year since 2003-2004 (Michigan Department of Education, 2011a).

The Academy was listed among the top 10 charter public high schools (based on 2008-2011 assessment scores) on the Michigan Public High School Context and Performance Report Card (CAP Report) achieving an “A” grade. The CAP Report Card measures academic performance by using public data, the average scores from Michigan standardized assessments. This report card attempts to provide a “better ‘apples-to-apples’ comparison of public high schools by adjusting students’ average standardized test scores to account for disparities in the socioeconomic status of the student populations” (Van Beek, Bowen & Mills, 2012).

The Participants

The Academy was led by two building principals, a K-5 elementary school principal and a 6-12 secondary school principal. The elementary principal, who will be identified by the pseudonym Principal Betsy, has been at the Academy for six years, initially as a classroom teacher and then advanced to the elementary principal role in August 2011. The secondary school principal, who will be identified by the pseudonym Principal Nick (Principal), has been at the Academy six years, since 2006, and has the additional title of curriculum director. The

principal team was supported by the superintendent, who works through the management company.

According to the Academy website, in 2011-2012, the Academy has approximately 50 teachers. This number included teachers for all grade levels, in core content areas (English language arts, math, science and social studies) and in the non-core areas (art, technology, physical education, special education, and environmental science). All core academic subject classes are taught by highly qualified teachers, reported by the degree held (Table 1). The Academy annually reports the professional qualifications of faculty in accordance with the State of Michigan definition, as revealed in site documents.

Table 1. Windy Hill Academy Teacher Quality Data

	Other	B.A.	M.A.	Ph.D.
Professional Qualifications of Teachers	0	39	11	0

In discussion with teachers it was learned that not all teachers are employed full time. There are three sets of shared time teachers or two teachers who share one full-time position. There are also three special education teachers and three teachers that comprise the environmental education team. The length of employment ranges from first year teachers to those who have been at the Academy for eleven years. Fifteen teachers and two principals agreed to be interviewed for this study, representing a cross section of new and experienced teachers, core and non-core content area teachers, and elementary and high school teachers (Table 2).

Table 2. Demographic Background of Study Participants

Position	Gender	Length of Employment	Teaching Assignment Core vs. Non-Core	Discipline
2 – Principals	6 – Male	8 – 1-2 years at Academy	9 – Core Courses	ELA, Math, Science, Social Studies, Environmental
15 – Teachers	11 – Female	9 – 3-11 years at Academy	6 – Non-Core Courses	Science, Technology, Art, Spanish, Special Education

These 17 educators represent the individual participants for this dissertation. The research focused on the participant descriptions and perceptions based on their interaction with a curriculum management and design tool. The remainder of this chapter presents the findings based on the research questions and the emerging themes of this study.

Research Findings

The following section presents the findings of this research. Principal and teacher interviews, observations, and artifact analysis were used to collect the data. Based on the research questions, interview questions were written for the principals (Appendix H) and classroom teachers (Appendix I). The findings are substantiated using quotes from the interviewed principals and teachers and by literature reviewed for this study.

As revealed through interviews and supported by Academy documents, teachers are assigned by grade level and/or content area, meeting all requirements to maintain the status of a highly qualified educator. All teachers are scheduled at least one hour of common planning time each day. Multiple teachers reported that collaborative opportunities were available and one teacher said, “Teachers are always exchanging ideas here” (teacher 5). The Academy took a

unique approach to accommodate teachers by providing for shared teaching assignments. The shared teaching positions were designed so that these teachers had time to plan and coordinate delivery of the curriculum.

Additionally, seven teachers reported that a Professional Learning Community (PLC) was a part of the school with the practice of PLC's reported in the Academy written Educational Program. Teachers are provided "structured time [to function] as a PLC" (teacher 5). PLC time consisted of a scheduled and dedicated 45 minute block for time, meeting once a week on Thursday. The purpose was to allow for collaboration and sharing amongst teachers. This time was devoted to working together to discuss educational best practices, "instructional strategies, lessons, resources" (teacher 9), "vocabulary acquisition" (teacher 2), "common assessments" (teacher 10), and approaches to deliver the curriculum to meet student needs. While structured, PLC time was also dynamic in that meeting attendance was intentionally planned to mix content area teachers and grade level teams. This system was coordinated by the principal team, who provide a "color-coded calendar" (teacher 2) outlining team assignments and attendance expectations.

Professional development was reported by the principals as a priority. At the beginning of each school year, time was dedicated to professional development with "a curriculum camp in August" (Principal Nick) for new teachers. This time included training on the use of the CCT. Professional development was mandatory for teachers who have been at the Academy for one to three years with attendance by other teachers as optional. Additionally, each month there was time scheduled for other professional development. This typically occurred "once a month, on Mondays" (teachers 3, 2 & 5), when students were not scheduled to be in the building.

Implementing an Innovation

Research Question 1: How does the school implement an innovation?

In seeking to better understand the participants' perspectives on implementation of an innovation, interviews were conducted, documents were reviewed and field memos were written. The following section was based on research question one and focused on understanding implementation by examining how the innovation was chosen, what drives the innovation forward, and if barriers exist. This section will be followed by the emerging themes. The building principals and classroom teachers, regardless of their grade or class assignment, were interviewed separately.

Choosing an Innovation

The school opened as a public school academy in 1995. The building principals were unclear about the original curriculum but the teacher's recalled a time when portable buildings, working from a cart, and the lack of a strong written curriculum were the norm. One teacher, who was hired in 2002, recalled that the school did not have a strong written curriculum. This teacher said, "We basically started without a curriculum. It was up to us [teachers] to look up the grade level content expectations and find what we needed to teach" (teacher 8). The lack of a written curriculum resulted in teachers relying on the Michigan Curriculum Framework or the Grade Level Content Expectations (GLCEs) to inform instructional decisions.

As reported by teachers the Academy purchased the KC4, a binder-based paper curriculum in approximately 2003. One teacher recalled that the teachers were told, "These materials were intended to be a resource and not the written curriculum" (Principal Betsy). The KC4 was used for a couple of years when a former principal decided to change the curriculum.

A teacher reported, “Literally, one of the principals here at the time, they are no longer here, wanted us to have a ‘burn party’ for the binders. [The principal said,] We’re getting rid of it; we’re throwing it away” (teacher 8). This was when the Academy “officially” quit using the KC4. However, teachers reported that they kept materials and one teacher said she “kept the binders” (Principal Betsy) and continued to use these materials to support the curriculum.

In 2006, a new leader was brought into the building and was the building principal at the time of this research. A teacher reported that a group of classroom teachers approached leadership to express a desire to obtain a stronger written curriculum. The Principal encouraged the teachers to seek out resources, gather information, and make a proposal about suggested curricular changes. One teacher made an inquiry about curricular systems, which resulted in obtaining information about the KC4 curriculum (teacher 8). Subsequently, the principal followed-up with the local Intermediate School District (ISD). He recalled, “I approached them [ISD] for some digital copies [of the KC4] and at that point, they came to me with the web-based tool;” the web-based curricular tool was the CCT, created through the local ISD and released in 2008. Teachers reported and ISD records confirmed that it was at this time that the Academy began to use the curriculum that was in the curriculum management tool.

Several interviewees were working at the school when the web-based tool was acquired. One teacher reported, “Our school just soaked it [curriculum] up because we needed it.... What a wonderful thing to make it our curriculum...” (teacher 8). The teachers that were at the Academy when the tool was introduced spoke to the impact of having a curriculum management tool that contained curriculum. They could see the potential benefit over reliance on the state standards. The secondary school Principal also recognized that what was begun as a preliminary

pilot had developed into a manageable system. He reported, “We were one of the schools that participated in a pilot and... it has blossomed into a huge thing.”

Implementation Drivers

The interviews revealed four factors that were seen as the drivers of this innovation. The four driving factors were administrative support, creation of a common curriculum, academic achievement, and efforts of teachers.

When asked who or what was perceived as the driving force in implementation, the most overwhelming response was support from the principals but specifically the secondary school Principal. He was identified by ten teachers as the driving force behind the implementation of the curriculum management tool. Additionally, one teacher identified him as “the curriculum director” (teacher 5). One teacher said, “Absolutely, it is the [Principal]. He is the driving force behind it. He’s is the person who is driving it” (teacher 5). It was also apparent from on-site observations that the Principal was a driver. He was observed in multiple conversations with teachers on the use of the tool.

The second driver was the desire to create a common curriculum. The creation of a common curriculum was seen in two areas. The first was the ability of the teachers to work toward the creation of a common curriculum. One teacher said, “It is the common curriculum. This is the curriculum” (teacher 9). The creation of a common curriculum allowed teachers to have curricular consistency across grade levels and content areas. The teachers recognized that by having a systematic process for recording the curriculum, there was the potential for stability in instruction. Instead of pulling from multiple resources with multiple objectives, the curricular objectives and resources were captured within the curriculum management and design tool.

Teachers saw the recording of content as a benefit especially when there was teacher turnover. By having access to the curricular content, when a new teacher entered the school, this teacher would be able to access the curriculum, see what had been done in the past, and tailor instruction to provide consistency and avoid gaps in instruction.

The creation of a common curriculum was perceived by teachers as coming from the management company. In public school academies, the educational service providers are often involved in the curriculum development process and the provider at Windy Hill Academy was actively involved in this process. In an informal conversation with the school superintendent, it was shared that one of the management goals was to equip the school for success. According to the management website, the objective was to implement the goals of the Academy Board through the delivery of the curriculum. Further, the website indicated that services associated with the curriculum include the implementation of the Educational Program as contained in the charter contract, the implementation of an effective curriculum alignment process, preparation of students for high stakes testing, facilitation and monitoring the instructional program. This work was done in conjunction with the building principals.

Two teachers recognized that the educational service provider drives the creation of a common curriculum. One teacher reported, “The force is twofold; it’s the [educational service provider] that likes the tool. The other part was to create a common curriculum throughout their schools. I think that is the driving force...they are pushing for it” (teacher 4).

The third driving force identified by teachers was the desire to perform better on the standardized tests. One teacher said:

That [assessment success] is a big point of emphasis, not that it is everything, but it is a big indicator of what we are doing here and if we are successful. From the [principal’s]

perspective, if we can be all on board with this curriculum, this will lead to success on the standardized tests. (teacher 13)

Three other teachers also verbalized that the need to do well on state standardized tests was a driver of developing the curriculum.

The fourth driving force was the teachers themselves. One teacher captured the attitude of the teachers, “We are all pulling together.... Now everyone has a common language and there is more collaboration among teachers. Everyone doesn’t have their own agenda; we’re all in this together” (teacher 9).

Barriers to Implementation

In considering how a school implements an innovation, a question was asked to discover if there were any barriers in the implementation process. Upon examination of the data, potential barriers were faced in three areas:

- 1) by the principal team,
- 2) with the implementation process, and
- 3) with teachers using the curriculum management and design tool.

This section will address these three barriers plus present an unintended consequence.

First, from the principal perspective, there were two barriers that needed to be addressed. The first barrier was ensuring teachers buy-in. The principals recognized that getting teachers buy-in was critical to implementation. According to Principal Nick, when the organization underwent change, there was the potential for sabotage with challenges arising from within. The Principal recognized that there can be “authentic concerns about whether a certain lesson is taught, or taught in a certain way. or if it should be taught at all.” He said, people, when forced

to change, “will find holes,” which can lead to a decrease in perceived value. In order to continue to move the implementation process forward, he said, “You must fix them [the holes]. You fix them as fast as you can or they [teachers] say your plan is no good and they don’t want to go there.” The principal recognized that this might happen and took a pro-active stance by addressing concerns directly to the teachers. In his opinion, attending to any expressed concerns, particularly if negative, was critical for implementation success.

In response to this need to get buy-in, Principal Nick recognized his role as one of a facilitator. In this role, he assisted the teachers as they learned about the innovation. Administration must address any perceived challenges by “facilitating their [staff] needs after they start using it [the innovation]” to escape any negative consequences. He further reported that if the barriers were not addressed, staff members might not want to continue the work of implementation and would not buy into the process.

The second barrier was allowing enough dedicated time to the chosen innovation to ensure implementation fidelity. Principal Nick recognized that implementation takes time (Fixsen et al., 2005). He also recognized that a potential barrier was not allowing sufficient time for the implementation to move beyond the initial stage. He stated:

People want to throw in the towel at six months or three months or even a year [*sic*].

Sometime you won’t get the data back for a couple of years. [You] must be careful what you discard and what you pick up. This is a juggling act in my opinion. As an administrator, you run a risk anytime you pick up [an innovation] and spend too much time on something that isn’t going to work.

Principal Nick was aware of the need to continuously monitor and provide the time to integrate the innovation into the school culture. While the discussion was directed at the use of the CCT,

it was clear that the Principal was aware of the necessity to consider sufficient time in any implementation process to continue to move the implementation forward.

In addition to time needed for implementation, time for coaching and training was needed. Principal Nick said, “The thing that is difficult in that sense is you have to coach or train people to give time for any new initiative enough time to work.” Coaching is often more individually focused learning with training being perceived as whole group learning. Both are important strategies in implementation. Fullan and Pomfret’s (1977) review found that for effective implementation, training and other forms of people-based support are necessary. In later work by Fullan (2006) and supported by Reeves (2009), training and coaching were critical component to ensure teachers were implementing with fidelity.

The third barrier was reported by teachers. They reported that the biggest barrier was in the use of the tool and adding course content into the innovation, the CCT. While the CCT contains an embedded curriculum in the core content areas of English language arts, math, science, and social studies, the Academy expectation was for all grade level teachers to add content in the form of units, lessons, and support materials. The principals had established a submission procedure which included a review of all content. Principal Nick reviewed the material so he was aware of who and what was being submitted. In the 2011-2012 school year, submission of content materials was connected to teacher evaluation. By expecting teachers to add content area materials and connecting this to teacher evaluation, accountability was built into the system. It also compelled teachers to use the innovation, effectively overcoming the barrier. Principal Betsy said:

The challenge, I think, right now, is adding to it [CCT], because we expect our teachers to add to the CCT lesson bank, so that if a teacher is gone tomorrow, the next teacher can see where they have been. It is a history of what we have done that is school specific.

The challenge, which could become a barrier, was creating the lessons and preparing them for submission. One teacher reported, “The pressure to get them [unit plans] in is difficult” (teacher 4). Several teachers reported that the process was exasperating. One teacher said, it is “frustrating, extremely frustrating” (teacher 1). Additionally, a core content teacher recounted,

When I look at the CCT and the way the unit plans are set up, it makes sense. It is the way that I plan for my lessons individually. The hardest part is making my information fit into the template to get into the Curriculum Crafter. (teacher 1)

It appeared that the lesson development was not the challenge but getting materials organized for submission was. Teachers reported that they like the structure of the tool, and having the entire curriculum in one central, retrievable location was beneficial, but the preparation of materials presented the challenge.

Further, the use of the assessments that were contained within the tool presented a challenge. Beginning in November 2011, the Principal’s expectation was that the English language arts and math teachers use the assessments that were included within the tool. This practice effectively created a common assessment that aligned with the lesson content and was the same across same grade and same subject classrooms. The Academy began to refer to the assessments as the common assessments.

The teachers found that most of the assessments were tough for the students. A teacher said, “The assessments are too large and difficult for the kids” (teacher 17). Principal Betsy concurred, “The assessments are too large and they are daunting.” Teachers in coordination with

the Principals have discussed possible solutions to the assessment struggle, yet the expectation for 2011-2012 was to give the entire assessment.

In spite of the potential barrier, the use of common assessments had an unintentional, positive impact on teaching and learning. Teachers gave the assessments and then based on the feedback, adapted and/or retaught lessons or concepts. One teacher reported, “It [assessment] has been a good guide to show how deep I should go into everything [content]” (teacher 17). Another teacher shared, “the assessments really focus and drive my instruction” (teacher 2). Principal Betsy supported this thinking, “Teachers have had to switch up teaching a bit, and reteach.” She observed that teachers were re-teaching content where student assessment indicated a lack of proficiency.

Additionally, the use of the assessments led Principals and teachers to ask reflective questions regarding the curriculum and instruction. Principal Betsy relayed that the teachers were asking questions like, “Where are they [students] not meeting expectations? Why? Were they [teachers] dumbing it down?” Teachers were reflecting on the impact of curriculum and instruction. The reflective nature of the questions led teachers to rethink how assessments were used and the linkage to content and instruction. Common assessments appeared to be the catalyst to cause teachers to look intently at the curriculum and instruction, resulting in instructional change.

Barriers were encountered in the implementation and use of the curriculum management and design tool. One of the barriers, the use of common assessments from the tool, resulted in an unintended consequence that caused the teachers to reflect on instruction and alter delivery of content. From the analysis, two themes emerged and will be explored in the next section.

Emergent Themes

During the data analysis process, the participant's perceptions as related to how the Academy implements an innovation were examined. In this process, specific themes emerged in two areas. First, the need for dedicated time to learn and interact with the innovation, and second, setting the expectation for the teachers to be actively engaged in the process.

Time

The emerging theme was the need for time dedicated to learning and interacting with the innovation. The notion of time appeared to be an elusive consideration and raised questions such as: How do teachers use time? How much time was allocated for curriculum and lesson development? How can the schedule be developed to ensure time was set aside to allow teachers to engage in this critical work? As the data were examined, the concept of time repeatedly emerged in the interviewee responses. The Principals was aware that spending time on any initiative was risky and that leadership needed to continuously monitor for effective use of time. Time, as viewed by the participants, was grouped into three categories: using time in productive ways, finding time to fully implement the innovation, and saving time by using a curriculum management tool.

The building principal's provided opportunities for teachers to use time in productive ways. Multiple teachers reported that they are given time during Professional Learning Community or "PLC" time. PLC time was a structured 45 minute block, meeting one day a week after school hours. In addition to the PLC time, teachers also reported that they had common planning time for grade level teams, plus teachers had additional time when students

were out of the classroom for specials. In addition, teachers reported that they took time during lunch as well as before and after school to engage in conversation with colleagues.

A teacher reported, “We [teachers] have Professional Learning Communities where we can work on that [individual questions] together” (teacher 8). The PLC and common planning time give teachers opportunities to talk with each other. A teacher said, “Teachers are always exchanging ideas here” (teacher 5), as a result of this time together. Teachers reported that they work with their peers, in collaboration, in exploration, and in conversation.

Leadership recognized that using time in a productive way would need to include coaching. The Principals also recognized that coaching was a critical component in the implementation process. The secondary school Principal believed, “you have to coach or train people to give any new initiative enough time to work”. In the training provided by the ISD, teachers are encouraged to take time to work with the system. Teachers need time to see how the tool fits into what is already being done in the classroom. Training and coaching opportunities were provided.

Secondly, finding the time to fully implement the innovation by learning how to use the tool was essential. Ten teachers specifically reported that finding time to work on the implementation of the innovation as a challenge. One teacher reported that she did not find any challenges with the implementation process, but found it was difficult to find time to work with the tool. She said, “It’s finding the time to do it—actually sitting down and doing it” (teacher 2). This finding was supported through the researcher attendance at curricular tool training. A researcher reflection as recorded in a field memo revealed that teachers need to have time to work within the system. Teachers need to have time to see how the tool fits with what is already being done in the classroom.

As the implementation process moved forward, time was needed for the creation of quality lessons which were added to the curriculum tool. Teachers were expected to submit lessons on a regular basis. With the upload, all the unit plans must be entered into the template and all resources must be created as PDF attachments. One teacher summed it up, “It is difficult keeping up on your lessons—getting them in there. Putting them in..., it’s challenging and the pressure to get them in there is difficult” (teacher 4).

Another teacher added:

The biggest challenge is the vast amount of time to create this [curriculum] from scratch. We [the Academy] are not a textbook school.... All the information is coming from my experience and what they [students] need to know. We are building it from the ground up. It takes a lot of time. It takes some tweaking. We write it and we do it and then we realize that this didn’t work. It is a work in progress. (teacher 14)

While time consuming, the teachers are actively involved in the process of curriculum creation.

The third category was saving time. On the flip side of taking time to work with the tool, seven teachers reported favorably that using the curriculum management and design tool was a time saver. Two teachers reported that the ability to work from any location with internet access was a time saver. One teacher said, “The fact is you have information available with online access from anywhere. I can log on at home and have the curriculum” (teacher 1). One enthusiastic teacher reported:

I love it. It is time saving for me. It reminds me, gives me a record, of how I taught it [a unit] in the past. ...it helps with my planning of my trimester. Which units will I do first? Which will take more time? (teacher 14)

In the implementation process, time is a necessary consideration. Time is necessary to bring teachers together in PLCs and for professional development. Time is necessary to allow users to acquire proficiency with the innovation. Time also can be used in other ways when the innovation creates an environment where teachers have more time for other instructional practices.

Expectations

The second theme was setting clear expectations for use of the innovation. Teachers had an understanding of the expectation as set out by the Principals. They communicated the expectation for the teachers on the use of the CCT to guide curricular decisions, to capture content, and to provide assessments. Further, it was the expectation that all teachers contribute content for inclusion within the tool. The sense of expectation emerged in three categories. The Principals:

- 1) set high expectations,
- 2) supported and communicated the process, and
- 3) Tied expectations to evaluation.

It was evident that the building principals set clear expectations for the Academy teachers. Not only did teachers identify the Principals as the instructional leaders in implementing the curriculum, teachers viewed the secondary school Principal as the one who held out the expectation. One teacher commented, “His [Principal Nick] standard is (pause)... he has very high expectations” (teacher 17). Another teacher summed up what other teachers inferred, “The expectation, on using the tool, is that you will use it, and that this will guide your

curriculum” (teacher 11). Another said, “It is expected and it is what we use...” (teacher 1). The expectation was communicated to the teachers and drives them to use the tool.

The second category of expectation was supporting and communicating the process. Principal Betsy articulated that her role was “educating the teachers on it [tool]; making sure that I am communicating the expectation—this is what they use. This is the curriculum.” The Principals not only set the expectation but were actively involved in support to the teachers in all aspects of implementation of the innovation; the principal participated in the work. A teacher said:

He [Principal Nick] showed us how to write these [unit plans] and has given the expectations of what should be in them. We have a template of how he wants the units sent to him. But in terms of did we include everything we needed is left up to us to include what we need. He is viewing them, and saying ‘yes this is what I wanted’ or we can go back and edit. (teacher 14)

The expectation was communicated through written reminders. On a weekly basis, reminders were sent to teachers. The school leaders worked together to send out a weekly schedule, which includes a notation to “enter the CCT lessons.” This was a simple way to keep the expectation in front of the teachers.

Additionally, the Principals engaged in “constant conversations” with teachers. Principal Betsy used the phrase “constant conversation” as she spoke of holding out the expectation for use. She said, “This expectation...this is a constant conversation, all year long—regarding the reasons why [pause] the why and the how to use it” (Principal Betsy). She referenced a conversation about teaching the intended objectives, “So when I talk with them they have to be educated on it [CCT] so they can jump on it. It is a constant conversation to make sure they are

teaching the intended objectives.” The teachers were also engaged in the conversation. One teacher said, “Yes, the teachers talk with one another....So there is constant communication” (teacher 5). The conversations served to support the expectation for use of the tool.

The third way the expectation was communicated was through teacher evaluation. The Principal’s felt so strongly about the expectation that teachers submit curricular content that submission has been connected to teacher evaluations. He said, “It has to be in the evaluation and it has to be constant”. A teacher reported:

It is built into our evaluation. It is a clear expectation from the interview process all the way through. It is brought up in every conversation. It is an ongoing dialogue in terms of—not dialogue—it is an ongoing mandate by the administration that we are working on these and that we are using them.” (teacher 14)

While the overall feeling of the teachers was that capturing content that reflected classroom instruction was a benefit to the Academy, this has not been without resistance. One teacher offered an appraisal of the requirement to submit, that reflects this resistance. She reported:

It has been requirement for us to use and utilize and to submit our additions to him [Principal] on a regular basis. It is part of our evaluation. So in all honestly some teachers don’t like it being kind of shoved down their throats, if you will. But I look back ten years ago—“you guys, we would have killed for this.” And being forced to do it, so to speak, has really made you, made me, get into it, look at it and use it (teacher 8).

Teachers realized the value of using the innovation and continue to rise to the expectations. By setting high expectations, supporting and communicating the process, with a connection to evaluation has made a positive impact on the teacher’s use of the curriculum tool.

In summary, in relation to the implementation of a curriculum management and design tool, two themes emerged from the data. The theme of time and high expectations were evident from the analysis. The next section will examine the leader's perceptions on implementation.

Leaders Perceptions on Implementation and Change

Research Question 2: What is the role of leadership in this change?

In seeking to better understand the leadership role in implementation, questions were asked of all participants to gain their perspectives of who was the leader and what attributes of leadership were evident. All participants were interviewed separately.

The Leader

The leader in the implementation process as it related to the curriculum management tool was the secondary school Principal Nick. During the data gathering process this trend was evident and was later confirmed during analysis. Fifteen teacher interviews were conducted and fourteen teachers identified the Principal, most often by name, as the leader in the implementation process. Two teachers also identified the Principal Betsy as the leader. Since she had only held this role for one year, this may have impacted teacher perception in viewing her as a leader in the implementation process.

While Principal Nick was clearly identified as the leader in the implementation process, there was also a perception that leadership was greater than just one person. In teacher interviews, the leadership role was linked to the collaborative/collective aspect of teachers working with teachers. Teachers connected the collective work of the teacher teams to the role of leader. One teacher stated, "We work collaboratively together to write this curriculum. It is still a work in progress for us" (teacher 14). Another teacher perceived that the leader in the

implementation process was more collective in nature, “I wouldn’t say it was any one person. I feel like we are all in it” (teacher 9). While the teacher acknowledged other factors, he concluded, “We are all pulling together” (teacher 9). Teacher perception was that by working together, the leadership role was shared.

Another way that leadership was shared was by granting instructional freedom in developing courses. The teachers are involved in the process from the beginning to the end by writing course descriptions and content to delivery in the classroom. A teacher said, Principal Nick “has given us free reign in terms of: these are the things that we need to cover in this course according to our course descriptions. But, wow, we’re implementing the curriculum, and he is pretty hands off” (teacher 11). Based on interviewee response and on-site observations, teachers were excited and engaged in the development of course materials. This instructional freedom showed innovativeness or the process of making change happen (Fullan, 2008) instructional freedom fostered the sense of instructional leadership as shared by the teachers.

The Roles

After seeking to understand who was perceived as the leader, it was necessary to consider the leadership role in the implementation process. Based on data analysis, the principals, working alongside the teachers, took on roles that were critical in implementation and change. Three leadership roles were identified. The roles were trainer, facilitator, and champion.

Principal Betsy reflected on the process of transitioning from not having a curricular system to having a school-wide system. In the process, the school leaders viewed themselves as the ones to create the opportunities for the teachers to participate in training opportunities. The principal understood that her role was twofold. The principal “must educate the teachers on use

of the system and communicate the expectations.” Principal Nick, in a separate interview, indicated that, “you [the leader] have to coach or train people to give time for any new initiative [...] to work.” Coaching conversations and training were woven throughout the research and the role as coach and trainer was critical to the implementation process.

The second role of the leader was that of a facilitator. The secondary Principal reported that he sees himself as the one to anticipate and to assist the teachers with what is needed in the process. Principal Nick said, “I try to facilitate anything that they need.” He sought out ways to make the process easier for the teachers as they began implementation and were learning how to use the tool. An example of facilitation was providing hands-on learning opportunities for the teachers. The school leader learned of an opportunity to send teachers to the local ISD to participate in work groups to develop curriculum, particularly using the curriculum management tool. The Principal reported that a committee was formed and English language arts and math teachers “made trips to the ISD to spend afternoons or full days” (Principal Nick) working with the tool and developing curricular units. This allowed the teachers to work with other teachers, and was viewed as “a way to understand the differences” which facilitated or made the teachers learning easier.

As the Academy moved from initial implementation toward full implementation, the school leaders continued to facilitate, to meet the needs of the teachers and make the process easier. Examples of how they facilitated teachers’ needs were ensuring common planning time, structuring time to allow for collaboration, providing human resource personnel to assist in the uploading of content, and hosting the conversation.

The third role of the leader was one of a champion. A champion role is a supportive role. The supportive role will continue to drive the implementation process forward, while allowing

for teachers to arrive at a level of comfort with the change. Principal Nick recognized that the change process was hard for people and indicated that often times, “because it gets hard, people want to go back to what they did before.” When things get difficult, teachers may have the tendency to return to prior practice.

Principal Nick recognized, “Teachers, educators are usually very much caught in their ways. They do things [professional practice] regardless of how old they are or how fresh they are.” Teachers, as is human nature, develop habits or practices that are comfortable and often resist change. As the supporter of the change, the school leaders continued to push and encourage the teachers to interact with the innovation. Nick reported,

We are in the place where the acclimation has taken place, where they [teachers] feel comfortable and they want to use it [CCT]. Obviously that was a long treacherous haul - getting people to change is always difficult. Now you'd be hard pressed to take it away from them.

Implementation is hard work. The secondary school Principal believed that a critical leadership role was to continue to monitor, encourage, and thereby, support the implementation process as it moved forward toward full implementation.

Emergent Theme

During the data analysis process, the theme of building capacity and competency emerged as a function of the building principal. While there are many hats that a principal must wear, in the implementation process the principal must be the one to ensure that the teachers were provided the opportunity to build their capacity and competency with the innovation. This theme, as discussed by the study participants, will be addressed in the following section.

Capacity and Competency

Capacity and competency building arise from the training and coaching opportunities that occur at various times, formats, and settings during the school year. The principals, as leaders, were the ones who must ensure that capacity and competency were built within the teachers. Teachers identified four different ways they gained knowledge and thus built their capacity and competency.

The first opportunity to build capacity and competency occurred prior to the start of the school year. The building principals valued teacher training and established a professional development plan, with hands-on training available to all teachers. Professional development sessions were planned and facilitated by instructors from the local ISD. These trainers were specifically qualified in the use of the curriculum management tool and the implementation process. Attendance was open to any teacher but was required for all new teachers. The Principal said:

When we bring in new teachers, usually at the beginning of the year, we have a curriculum camp in August and we provide two days totally committed to the CCT with all of our new teachers and anybody who would like a refresher. Anybody in their first two years is mandated to attend the two day curriculum camp and [teachers with] three or more years have the option to come in and get a refresher.

One teacher recalled, “A specialist comes in and trains us [teachers] on it [Curriculum Crafter Tool]; they did a great job of showing us how to access the lessons and the purpose behind it” (teacher 1). The training covers multiple aspects of curriculum development from a general introduction on using the management tool, adding content, accessing reports,

functionality, and special features. The professional development opportunities were whole group, presented in a workshop format with hands-on elements. A teacher reported:

We are sitting in the labs watching her give her presentation. We log in and pull up and do things at the same time. I need to do it and not just watch someone do it, but to see what she is doing, so I can do it at the same time. We can watch her and actually do it. This has been helpful. (teacher 2)

Professional development also occurs during the school year. One teacher reported that professional development “typically occurs once a month on Monday’s” (teacher 2). Principal Betsy reported that she brought in the trainers from the local ISD “at least two times during the past year, to talk with teachers and to run them through the components.”

Teachers were able to request professional development. A teacher said the school leader was open to the ideas brought forth by teachers. This teacher shared:

[We] can request to have a PD; he [Principal] is pretty open with that. He tries to get a lot of input into our professional development what we need as teachers and would like to see and learn. If there are lots of teachers who don’t understand something or have questions about CCT, he has [ISD] come in. (teacher 17)

The second opportunity, to build capacity and competency for teacher learning, was self-directed or self-exploration learning. Teachers reported that while there have been organized professional learning opportunities; teachers agree that most learning was self-structured. One teacher said, “A lot of it [learning] has been from our own exploration” (teacher 12). Principal Nick encouraged teachers to spend time working with the curriculum management tool to gain an understanding of the structure, content, and features. One teacher reported that the teachers must be willing to “make it work for yourself—to be willing—flexible enough and willing

enough to make some changes or modify for yourself” (teacher 12). Teachers were encouraged to critically look at the material and make edits, “feed it [units] back through the system through modifications or additions” (teacher 12). Teachers saw the independent time to interact with the tool as beneficial.

Additionally, the web-based feature of the tool lends itself to self-exploration in settings other than school. Since the tool is web-based, “we have the opportunity to explore on our own” (teacher 5). Further teachers reported they liked the “always on, always updated” (“Curriculum crafter,” 2008) aspect of the tool. “I can log on at home and have curriculum. I can work on curriculum at home ... I can review it anywhere I want to” (teacher 1).

The third opportunity, to build capacity and competency was the learning, occurred as teachers worked collaboratively with other teachers. Teachers related that besides independent work, they work in small groups. A teacher stated, “mostly internally, in small groups trying to work it out, helping each other out” (teacher 12). It was teachers helping teachers and working collaboratively that learning occurred. One teacher relayed how her colleagues provided support, “The staff work together to send him [Principal] lesson plans, which were discussed with the staff.” She further added, “a colleague would show me, [saying] this is what I submitted, a sample lesson that I submitted” (teacher 4). This allowed the teachers to see a real example, which guided curriculum development. Principal Nick commented on the opportunities to shadow other teachers:

We work on a shadowing component; whereas, after they [other teachers] learn the basics of the Curriculum Crafter, we have them work with the teacher in their content area for at least two more days so they can become very sound at using the tool.

One teacher's enthusiastic response to describe her experience: "We run between each other's rooms. We had to help one another. [We were] asking, now how do you find this? How do you find that? It has been a team learning process" (teacher 18). This collaborative, working together atmosphere was apparent during observation.

The fourth opportunity to build capacity and competency occurred as a result of coaching conversations with the Principals. These conversations were in connection with observation, evaluation, and feedback. They held high expectations for the teachers to use the tool and to develop curriculum. Principal Betsy reported:

It is the expectation and the evaluation process. If it is not in the evaluation process it's NOT [emphasis added] going to be built. It has to be something that is focused and required and referred to. So when I talk with them [teachers] they have to be educated on it so they can jump on it. It is a constant conversation to make sure they are teaching the intended objectives.

Teachers shared about the use of observation and evaluation as a way to develop their capacity as teachers. One teacher reported that, "anytime we get an observation, he [Principal] will make a note of whether we are adding or not.... It [building capacity] is strictly through our observations and evaluations" (teacher 11). The learning was associated with the processes connected to observation and evaluation. The building principals conducted regular classroom observations and provided a written record of the observation. One teacher reported on the process:

He [Principal] puts the notes in your box for your review. You have a pre-conference to discuss the lesson; he takes notes while you teach the lesson. He gives them [notes] to

you so you can compare what you think went well or what you did. Then the notes come into the conference with the Principal. (teacher 11)

As a result of the observation and feedback procedure, teachers are encouraged to think about their practice. Teachers are also aware that the Principals know what they are doing and are therefore being held accountable for use of the tool. This procedure allowed the school leader to coach through encouragement and correction of the teachers in the implementation process. These conversations in effect continued to move the implementation process forward.

The Principal had a definite role in initiating, as well as forwarding the work of implementation. Trainer, facilitator, and champion were the roles of the building principals. Additionally, the Principals ensured that the teachers were provided with multiple learning opportunities to develop capacity and competency.

Influence on Instructional Practice

Research Question 3: How does the innovation influence instructional and professional practice?

In seeking to better understand how the innovation influences instructional practice, questions were designed and asked that focused on professional and instructional practices. The intent was to understand how teachers work when using a curriculum management and design tool. Instructional practice included aspects of teaching, such as, identifying instructional content, selecting units of instruction, pacing lessons, creating student activities, choosing effective methodologies, and making assessment decisions. The questions were directed at the building principals as well as the teachers. Classroom teachers, regardless of grade or class assignment, were interviewed separately. The following section will present the Principals and

teacher perceptions of the innovation's influence on instructional and professional practices, followed by the emerging themes.

The school leaders were asked if they perceived that teacher practice had been influenced as a result of implementing a curriculum management and design tool. During the interview with Principal Betsy, who was a classroom teacher when the curriculum management tool was selected, responded with the following comment:

I think it has made it [the curriculum] more accessible because you can do a one stop shop. Us [the Academy] being a non-textbook school, we don't have all the resources. There is no such thing as having every resource in one book but we consult multiple resources in order to make our lessons more complete. All the terminology, vocabulary, all the objectives, a resource bank, there are some teaching tips, [...] Definitely pulls it together....

The curriculum management tool has been used as a central location to hold all the components of the curriculum and is seen as positively influencing the teacher's practice.

The tool provides 'flexibility' or freedom in making instructional decisions. While several teachers referenced curricular flexibility, one teacher reported that the tool, "breaks down all units for me, yet it still gives me the freedom to decide how to present to the students. I have the same outcomes and the freedom on how to teach it..." (teacher 2). Another teacher said, the tool provides "latitude to make instructional decisions" (teacher 5). The tool was referenced as "a map" (teacher 4, 10), "a skeleton" (teacher 11), "a framework" (teacher 13, 11) or "a guide" (teacher 11, 17), upon which to build the day-to-day lessons. Each image provides a starting point for teacher planning with the ability to adjust as necessary.

Additionally, teachers use the instructional content to determine how deep to go with instruction. The teacher relayed, “It helps me to decide how deep I should be going into a lesson” (teacher 17). Teachers recognized that they were able to tailor instruction to the individual needs of students. An example comes from a teacher who relied on the objectives as a guide to instructional decisions, “I read the objective and come up with my own lessons” (teacher 17). While a teacher may not have used all of the lessons or all the activities as given, the curricular content was used to influence instructional decisions.

Several teachers reported that using the tool allowed for more freedom to experiment. Since teachers were allowed flexibility in instructional design, they were free to “try something new because it’s not there saying you have to do it this way” (teacher 14). Another teacher continued, “Sometimes when I work with or are given a curriculum I feel boxed in, but I don’t feel that way because I create it myself. It was mine to start with and I love it” (teacher 11). This freedom allows teachers to buy-in to the curricular design process and create personalized lessons.

Differentiation of instruction was facilitated through the features of the tool. The special education teacher recognized that some of her students:

tend to be a little lower so I can take a standard that is at grade level and then start at step behind or you know, more of a starting point that may not be the full standard but it gets me in the ball of park of that standard and I work toward that...It is a starting point for some of my kids. (teacher 15)

Instructional decisions are made using the resources of the tool, to meet the goal of allowing students to demonstrate knowledge in a particular area.

The Principal recognized the most impactful change to instructional practice as the use of common assessments. During the 2011-2012 school year, an Academy initiative was requiring the use of the tool and tracking assessment results that were included within the curriculum management tool. Core content teachers are required to administer the assessments without altering the assessment. Monthly, teachers report the results to the administrative team, who monitors and tracks student proficiency. Principal Nick said:

What we are finding out is that this tool ...assimilates itself to what the kids are assessed on or how they are assessed. They [the assessments] are very similar to the MEAP [Michigan Educational Assessment Program]. Kids get used to taking a particular type of test so it is not foreign.

The tests contained within the tool allow students the opportunity for students to take a MEAP-like assessment, which has been identified as a best practice in developing test-taking skills. Teachers also reported that the assessments are set up in a style that mimics the state mandated assessments. Further, the administration found “common assessment that we are putting together are cumulative. ...you are not tested on what you learned this week or last month but learned last fall or possibly even last year.” This cumulative aspect of assessment follows best practice in test taking.

Teachers also perceived the assessment component as an influencer for instructional decisions. Eight teachers referenced the use of the “common assessment” as a method to drive instruction. Teachers recognized the need to ensure that the identified content and taught curriculum was aligned to the assessment and did so by considering the assessment at the beginning of the instructional process. In this process, one teacher used the assessments to design lessons, “I know everything that I need to cover, and I can design what I'm going to teach

around it” (teacher 2). Another teacher’s strategy was to “print off the assessment before I teach the unit to get an idea of where the students need to get to, and then I formulate a plan of how I’m going to get there” (teacher 17). By engaging in a process that starts with the end in mind, the teachers are backward mapping from assessment to appropriate learning.

Teachers indicated they use the assessment to determine content. One teacher stated she, “prints off the assessments and then works backwards” (teacher 2). Another teacher said, “for me to pull up that assessment and here is what the kids have to know...you work backwards” (teacher 8). Teachers then move to a pre-assessment to “see what I need to focus on to get them [students] to be proficient with the final goal” (teacher 2). Assessment was used to inform instruction, “to really focus and drive my instruction” (teacher 2).

The common assessment also encourages conversation between teachers. A teacher related that it was “a whole lot easier to talk with the other teacher when you are using the exact same thing [assessment]” (teacher 18). By having some commonality within the curriculum and assessment, teachers have a more collaborative atmosphere.

At the Academy, the use of a curriculum management tool has fostered a sense of consistency across content areas and specific courses when making instructional decisions. One teacher related:

When I came here, there was a cabinet of books and nothing was set down as to what to read in each class. [...] What was happening is that some kids had read some of the books in 9a and some in the other class. I’ve been pushing to make it be very consistent. So that anyone coming in knows exactly what needs to be covered in 9a, read these books, do these types of presentations, write these types of essays....(teacher 11)

Multiple teachers referenced using the tool to gain consistency amongst grade level teams and within specific content areas.

One teacher said, “It is cool to see the other teachers take information and print off the CCT and say okay, who is covering this in eighth grade, who is covering this in ninth grade” (teacher 1). This sharing allows them to ensure “we are scaffolding correctly, so students have the basic understanding they need from grade to the next grade. This provides the opportunity to build consistency across the curriculum.

The expectation was that teachers use the curriculum tool to guide their instructional decisions. The curriculum management tool makes the curriculum accessible and flexible, allowing teachers to design lessons that address the needs of the students. The use of common assessments informs instruction and assists in backward planning of content. Furthermore, since all the teachers use the curriculum management tool, conversations increased among teachers, fostering consistency and increased collaboration.

Emergent Themes

During interviews with the classroom teachers and during data analysis, specific themes emerged in regards to how the innovation influenced instructional and professional practice. The most commonly addressed themes surfaced in the area of a collaborative mindset and the concept of teacher voice. These themes, as discussed by the study participants, are addressed in the following section.

Collaborative Mindset

The notion of having a collaborative mindset, or an attitude where teachers work together was evidenced in teacher interviews, observations, and Principal comments. A collaborative

mindset was characterized by teachers coming alongside each other and working toward a common goal: to develop the written curriculum using a curriculum management and design tool. It was apparent from school observations that a collaborative mindset existed amongst the teachers. Observations included seeing teachers working together in each other's classrooms, teachers gathered around the table in the teacher lounge engaged in collaborative discussions, and casual classroom drop-ins that included asking clarifying questions and making requests for assistance.

Teachers reported that there were multiple opportunities for collaboration or coming together to discuss the curriculum and how to use the tool. One teacher summarized her experience:

Hannah (a pseudonym) and I are collaborating all the time on writing these units. She is writing for her class and I write for mine. As we are teaching them, we are always bouncing ideas off each other. Hey why don't you do this? I have an idea for that. Here is an article that you might use. We are always giving each other ideas and things about what can be used or put into the framework. (teacher 14)

This reflects the collaborative mindset amongst the teachers.

Collaboration was reported as occurring in multiple settings. Teachers reported that collaboration occurs as "teachers work with other teachers, work in Professional Learning Communities, as well as during structured professional development time" (teacher 5)

Collaborative opportunities are designed into the school day, with one teacher reporting that "the collaboration is up to us" (teacher 8). During the PLC's and PD times, teachers responded, "we talk about the Curriculum Crafter Tool, and the curriculum in there and how to implement it the best" (teacher 1).

During on-site interviews, ten teachers specifically indicated that collaboration or working together in the development of the curriculum was important. When teachers were asked if there were opportunities for collaboration, the answers ranged from “Absolutely” to “Yes, we do.” One teacher plainly stated, “We collaborate on the curriculum” (teacher 10). One teacher indicated that “collaboration is key” (teacher 3) with another reporting that collaboration was “very important—important to work together” (teacher 3). Even the teachers that do not have curriculum in the tool were positive in their response about the collaborative atmosphere. So, regardless of the use of the tool, a positive, collaborative mindset existed.

Several teachers recognized the collaborative atmosphere at the Academy. One teacher said, collaboration was “growing as our school is growing” (teacher 4). This teacher went on to say, “I think as we grow the collaboration starts to increase. Before with one teacher [per grade level] she could do it on her own, and that’s her curriculum because she is the only who teaches it. So now we are collaborating a little bit more” (teacher 4). Another teacher said there is “more collaboration among the staff. Everyone doesn’t have their own agenda; we’re all in this together” (teacher 9).

While the Principals were not asked specifically about collaboration, Principal Betsy referenced the collaborative mindset. She connected the emerging collaboration to the accountability with the use of common assessments. She reported:

This practice [common assessment and comparing scores] has led to a greater culture of collaboration. That’s where I actually saw it. And what it leads down to was collaboration between, let’s say, the three first grade level teachers. If they all have the CCT, all have the lessons, but if the assessments they are giving are different because they are formative assessments given by teacher and are different by class—maybe not

the exact same thing—and the expectation was different—not as rigorous as the other—and one teacher is providing more prompts and maybe one teacher is grading in a different way, then they are not apples to apples. So we were able to take a look at the assessment and say, ‘Okay guys now do you see these proficiency numbers on the common assessment, where there is a difference on the three? You are doing your kids a disservice by not collaborating together and having the same expectations.

The administration expected that the teachers would work together and have collaborative discussions on delivery and assessment. The common assessments serve to bring grade level teachers together to ensure that content and assessments were consistent, thereby, supporting a collaborative learning environment.

The collaborative mindset was fostered by multiple opportunities in multiple settings within the school community. As the teachers realized the importance of being collaborative and sharing knowledge, the atmosphere continued to grow.

Teacher Voice

Teacher voice was another theme that emerged from the interviews. Teachers, when involved in developing a process or implementing an innovation, have valuable information to contribute based on their content expertise and their interaction with the innovation. Teachers expressed that their voice was heard from the beginning of this process. Teachers recognized that the Academy needed to have a stronger curriculum. The tool was originally selected because the school leader listened to a classroom teacher and empowered her to seek out curricular options. The teacher recalled, “I went to him And I said, look, years ago we had the KC4 here, it was a great thing and can we order it again?” (teacher 19). Principal Nick gave

her permission to investigate curricular options, to gather information, including any associated costs. The teacher took on the challenge and that was how the school was “introduced to the CCT ... and from here it just exploded” (teacher 8). The Academy did formally adopt the curriculum management tool.

Several teachers indicated they felt they had a voice in the implementation process, whether it was adding or modifying the content. One teacher spoke to having a voice in the change process. This teacher said, “Sure, we have ability to make modification, rather it is additions. We are encouraged to take the things we do in class and enter into the CCT” (teacher 12). Teachers are expected to use the curriculum management tool and to add content in the form of instructional units and resources, specific to their content area.

Further, teachers feel their voice was heard by leadership in development of the curriculum. One teacher related that Principal Nick “knows we know how to do it so [he] lets us work. Especially to his staff that have been here for a couple of years” (teacher 4). The Principal honors his staff by listening to them and allowing them to openly share their knowledge of curriculum and curriculum creation. He relied on his content area experts to be involved in the development of curriculum.

In summary, the collaborative mindset and the ability of teachers to have a voice emerged from this research question. A collaborative atmosphere was observed on-site, as well as recognized by teachers. The collaborative mindset engaged teachers in knowledge sharing about the implementation and development of the tool. Teachers feel heard in that they had input into the process, were treated as specialist in their content areas, and were encouraged to be actively engaged in the creation of curriculum and the implementation of the curriculum management tool.

Learned to Inform Policy and Practice

Question 4: What can be learned from implementation of the innovation that can inform others in policy and practice?

There are multiple layers to consider when thinking through what implications to inform policy and practice. There were the overarching policy decisions that arose from state and federal mandates that directly impacted the operation of the school. One consequence of NCLB has been an increased focus on connecting the curriculum, instruction, and assessment with mandated standards. The Common Core State Standards Initiative (2010) is a federal policy proposal that was adopted by the State of Michigan (Michigan Department of Education, 2010). This decision directly impacted the Academy in that it will require the development of curriculum that aligns with the CCSS.

One way to inform practice was the manner in which the Academy responded to the CCSS policy mandate. This was addressed by both teachers and Principals as they considered how to address the change necessary to create curriculum to meet the common core. The comments were reflective of uncertainty about the change. One teacher said, “I’m nervous” about the transition to common core (teacher 19); another said, “We are now talking of bring in the common core, so there has been a lot more discussion” (teacher 2). Principal Betsy summed up the teachers response with, “everyone is freaking out in how this will play out.”

In response, the Principal organized a group of teachers to work on a process to transition to the CCSS. He said, “We have a subcommittee that is working with the ISD.... Their lone objective is to find distinct differences at each grade level from the common core to the Grade Level Content Expectations.” The Academy has begun the process of developing content that aligns to the CCSS, which will inform the practice of the Academy.

A second way to inform practice is for instructional leaders to understand that change will take time and will require leadership involvement. In a successful implementation process, people will have to develop new habits or new ways of practice. Principal Nick explained, “Educators are usually very much caught in their ways; they do things regardless of how old they are or how fresh they are.” These are their habits of practice. The Principal recognized that the key to changing practice in the implementation process began with leadership.

A third way to inform practice is to follow the advice of teachers that have been actively engaged in the implementation of a curriculum management tool. Teachers offered their perspective in the way of advice for other teachers. Teachers spoke of the need to learn about the tool, the curriculum, and how to use it. One teacher said, “take it slow” (teacher 11) and another teacher said, “go slow to go fast” (teacher 18). Teachers recognized that it takes time to learn how to interact with the tool, but as one learns, the skills increase and as a result the process will become easier.

Additionally, a teacher said, “set realistic goals” (teacher 11). In the beginning, the school leader introduced the tool to the teachers. Over time, with training, time on task, and constructive feedback, teachers learned how to manipulate the tool and learn about the curriculum. Finally, a teacher offered the advice of “don’t get overwhelmed” (teacher 17). The Principals continued to support teachers, and gradually increased the expectations, holding teachers accountable to interact with the tool and write units of instruction.

Emergent Themes

When considering how this innovation can inform policy and practice two benefits emerged. The benefits, as shared by Principals and teachers, were areas that contributed to a

positive implementation environment at the Academy. The themes were creating a common language and offering online accessibility.

Common Language

A benefit to having a curriculum management and design tool was the “common language” that it provided to the teachers. When asked about the advantage of this tool, one teacher expressed a sentiment that was common amongst teachers, “It is to get common curriculum and common language in the school” (teacher 4). Teachers recognized that with the increased use of the tool, there was common communication resulting in a common language amongst teachers. One teacher explained, “This tool has given us something that we are all using and we are all on the same page” (teacher 19). Teachers talk about content standards, units of instruction, assessments, and outcomes, all with a common understanding.

Closely connected to common language was a “uniform system.” The use of the tool assists teachers in the structure of lessons and units. Moreover, the use of the tool enhanced the discussion surrounding instructional decisions related to the capturing of content and content coverage from year to year. This was seen as a particular benefit to new teachers coming into the school. One teacher said, “If someone was to step into their position or for them to have a file to look back on, they can pick it up and go with it [curriculum]” (teacher 19). When there was a change in instructional staff, the curricular tool showed what students had been exposed to allowing teachers to anticipate the next steps in learning. For example, one teacher shared, “If they have me for US history but then someone else for government, they can go back to US history and see what vocabulary they should know already. So it creates a common language” (teacher 4).

Generally, teachers liked the structure and organization that a curriculum management and design tool provided. A teacher said:

It is great, very helpful and that is why I like it. It is a lot of work; I'm not going to lie, sometimes I don't want to do it, but in the end, as I'm teaching it for the third or fourth time, it is nice to pull out that document and say "Oh, so that's how I did it" (teacher 11).

Later this teacher added that the CCT was an efficient tool and helped her remember how she taught a lesson in a previous year.

Online Accessibility

Finally, a benefit mentioned by many teachers in regards to the use of a curriculum management and design tool was the fact that it was web-based and accessible online. One teacher revealed that having an online curriculum has been a "paradigm shift in my thought process" (teacher 5). There has been a transition from a "paper-based" system of three-ring binders and paper curriculum to a web-based, online system. A teacher commented, "This system has less paper and no three ring binders" (teacher 5). Teachers acknowledged that it was convenient to have the curriculum available online. One teacher said an advantage of the tool was, "It is all in one place. It is all on this website. It's all right here" (teacher 18). Another teacher said, "You can access from home if you were doing lessons. The planning time at home was a benefit" (teacher 11). Teachers appreciated the easy access to the curriculum.

In summary, the curriculum management and design tool provided for a common language, which influenced a common understanding amongst the teachers. Additionally, this tool informed policy and practice in that it functions as a guide for all teachers as they create and

use the written curriculum. Finally, with easy access and online availability, teachers are free to interact with the written curriculum in times and places that are convenient to the individual.

Conclusion

This chapter presented the process taken to select Windy Hill Academy and to portray a picture of what happened at this site. Data, as gleaned through interviews, observations, and document analysis were presented in relation to the research questions. The data were provided to reveal the selection process, the perceptions of implementation drivers and barriers that have occurred to promote or hinder fully implementing the innovation. Further, the perceptions of the leaders were explored in relation to the impact of the implementation process and the perceptions of the role of the leader. Next, the classroom teacher's perceptions on implementation of a curriculum tool and the influence to instructional and professional practice were presented. Finally, the practices that can influence policy and practice were explored.

Chapter five will present a discussion on the ties between this research and the literature as well as present conclusions for this research.

CHAPTER V

DISCUSSION AND CONCLUSION

Introduction

In this study, the research questions were presented in order to discover how a school implements an innovation and better understand changes to instructional and professional practice. This final chapter presents the discussion of the findings based on the emergent themes, the implications, and the conclusion. The research questions were:

- How does the school implement an innovation? (a) How did the school choose this innovation? (b) What drives the innovation (new practice) forward? (c) What are the barriers to implementation?
- What is the role of leadership in this change? (a) What is the leader's role in change in relation to the implementation process? (b) How has the implementation process influenced principal's practice?
- How does the innovation influence instructional and professional practice? (a) In what ways has professional practice changed as a result of this innovation? (b) How has the innovation changed instructional practice?
- What can be learned from implementation of the innovation that can inform others in policy and practice?

An in-depth qualitative case study methodology provided the research data. The investigation was conducted in a single research site, given the pseudonym Windy Hill Academy (Academy). The Academy provided administrative and classroom teacher perspective for analysis. To preserve confidentiality, pseudonyms were also assigned to all participants. The

data were gleaned from participant interviews, site visit observations, telephone conversations, and document analysis. Additional public data were gathered from the Academy website and MI School Data. In order to “transform data into findings” (Patton, 2002, p. 432), data analysis were performed on an ongoing basis throughout the study. The intent was to allow for the emergent nature of qualitative analysis to surface to order to provide insight and understanding from the field (Patton, 2002). All the while, the researcher was attentive to self, considering researcher voice and perspective, and also remaining attentive to present findings that reflect the feeling and perspective of the participants (Lietz, Langer, & Furman 2006; Patton, 2002).

Purpose and Significance of the Study

The purpose of this qualitative case study was to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. Innovation is a novel departure from current or conventional practice that requires change (Cohen & Loewenberg-Ball, 2006). While this research can be applied to any innovation, the curriculum management tool was the innovation that was being implemented at the Academy. The particular innovation was the Curriculum Crafter Tool.

This study was significant because educational reforms issues and subsequent discussions have pushed into the school and magnified the necessity for schools to prepare students to be academically successful for the future, whether in college or the workplace (NGA/CCSSO, 2010). Since the passage of the No Child Left Behind Act (2001) there has been a greater emphasis on aligning the written curriculum to academic standards. In order to have the greatest impact on learning and student achievement, schools must design a clear, coherent

curriculum for each course (Schmoker, 2011). In the process of engaging in curricular work, schools are seeking ways to manage and organize the curriculum, resulting in the increased use of curriculum management and design tools. These tools are considered an innovation because of the departure from established conventional practice. In seeking to understand the use of an innovation, this study investigated one school that adopted a curriculum management tool, the Curriculum Crafter Tool (CCT).

Further, this study sought to understand the implementation of an innovation and the impact on the professional practice of the principals and the classroom teachers. When the innovation was brought into the Academy, there was the intention of implementation with fidelity to the design; however, the complex nature of the implementation process needs to be considered. School leaders and classroom teachers must understand the most efficient way to move toward full implementation and sustainability will be by understanding the process, planning, and focusing on the hard work of implementation. Additionally, this study will contribute to the growing body of literature on implementation as a process comprised of distinct stages and driven by defined competency, organizational, and leadership drivers (Fixsen and Blase, 2009; Fixsen et al., 2005; Michigan Implementation Network, (2011); State Implementation, 2010).

Discussion of Findings

The discussion of findings has been organized by the research questions. Each question will present a summary of the findings including themes, followed by interpretation and summary. The focus of the research questions were:

- 1) the implementation;

- 2) the leader;
- 3) the classroom teacher; and
- 4) the connection to policy and practice.

The Implementation

The first research question was: How does the school implement an innovation? The sub-questions were (a) How did the school choose this innovation (b) What drives the innovation (new practice) forward? and (c) What are the barriers to implementation?

The questions focused on the manner in which the organization implemented the innovation. The organization studied was a K-12 charter public school that has had the curriculum management tool since 2008. Prior to 2008, it was reported that teachers were relying on the state standards to guide curricular decisions with teacher perception that the Academy needed a stronger written curriculum. This concept is supported by Schmoker (2011) who believes that until a school has a “clear coherent curriculum for each course we’ll only have a superficial impact on learning or achievement” (p. 70). Teachers recognized the need for a rigorous curriculum. Due to teacher request and the Principal’s investigation, the curriculum management and design tool was adopted by the Academy Board.

Fixsen et al. (2005) identified exploration and adoption was the first step in the implementation process which is illustrated in the conceptual model (figure 2). During this time, the support of the community must be considered to ensure buy-in which will assist in moving the implementation process forward. At this time active consideration should be given to how the innovation will fit into the environment, and an implementation plan should be developed. The plan should include “tasks and timelines to facilitate the installation and initial

implementation of the program” (Fixsen et al., 2005, p. 15). At the research site, participants did engage in exploration of the tool but they did not engage in the development of an implementation plan.

In spite of the lack of implementation planning or getting teacher buy-in, teachers accepted the tool. One teacher recalled that the teachers “soaked up the curriculum” (teacher 8). The teachers had been working hard to deliver content based solely on the content standards, lacking clear curricular guidelines. With the adoption of the curriculum management tool, which contained an embedded curriculum, the Academy now had a structured tool, a written curriculum framework, and teachers had the ability to “individualize” the curriculum. This study was conducted four years after this initial implementation, and most teachers had a positive response to the use of a curriculum management and design tool.

When the researcher asked what drove the implementation forward, four factors were identified. The factors were: 1) administrative support, 2) teacher effort, 3) common curriculum, and 4) the potential for academic achievement.

First, administrative support was provided by the building principals who provided support and acted as facilitators that effectively moved the innovation forward. They held out the vision and actively worked to create a new reality for the school (Kotter, 1996; Hickman, 2010), which caused new things to happen (Fullan, 2010). In the process of moving the implementation forward, the Principals provided support by offering professional learning opportunities, attending grade level curriculum meetings, assisting in data analysis, maintaining the conversation, and overseeing the entire process.

Second, teachers worked together and put forth the effort and energy to move the implementation forward, which indicated initial implementation occurred. Teacher perception

was that the teachers were pulling together to create a curricular system that would work for the entire school and for their students. According to City et al (2009), teachers have traditionally worked in isolation, resulting in independent instructional decisions. City et al. (2009), Marzano (2003), Reeves (2009), and Schmoker (2006), suggest that isolation leads to independent decisions that may or may not adhere to the written curriculum.

Third, the Principals and teachers reported that the creations of a common curriculum provided for curricular consistency between same grade classrooms, across grade levels, among content areas and from year to year. As teachers work on the creation of a coherent curriculum, the potential for academic achievement increases. Fourth, teachers reported that doing well on standardized tests was a motivator to do the hard work of implementation. Both Marzano (2009) and Schmoker (2006), support the concept that a common curriculum was the leading factor in increasing student achievement. Schmoker (2011) says, “Curriculum, what we actually teach—may be the single largest school factor that affects learning, intellectual development, and college- and career-readiness” (p. 70).

As a result of data analysis, two barriers to implementation were identified. The first barrier to implementation was ensuring teacher buy-in. When an innovation is brought into a school, change must occur, and this change involves people. Changing people is hard work. Black and Gregerson (2002) suggest that within the change process, barriers exist, yet there is the potential to overcome. The three brain barriers, as identified by Black and Gregerson (2002) were failure to see the change, failure to move toward the change, and failure to finish. At the Academy, failure to see and failure to move toward change were real possibilities.

However, the school leader recognized these barriers and the need to be aware of the excuses that would hinder the process and potentially cause failure. He believed that the way to

encourage the change was to provide a quick response to any excuses and thereby reduce the barrier, reduce potential rejection, and move people toward change.

The second barrier was the lack of sufficient time to do the work of implementation with fidelity. The Principal was aware of need to monitor and ensure time was dedicated to learning about the innovation. This awareness bore out in the classic findings of Fullan and Pomfret (1977) whose meta-analysis found multiple studies that identified lack of time as a barrier. The Principal also recognized that this would not be a quick process and that the initiative would need time to become part of what happens at the school. According to Fixsen et al., (2005) and Hanna (2003) the implementation process will not be a quick process but one that takes time to move from the beginning stage toward sustainability. It was necessary for administration to protect the time that was dedicated to learning the work.

Time and Expectations

When considering implementation of the innovation, two themes emerged, time and setting clear expectations. The first emerging theme was time. While time was identified as a barrier, time to learn and do the work was a consideration by most teachers and both Principals. Time was a necessary consideration to the implementation process. The Principals recognized that providing time for teachers to work in productive ways and time for teachers to work collaboratively was necessary to move the implementation process forward. Simply, the people involved in implementation must be given time to learn and to master the innovation, both individually and collectively (Fullan, 2010). Research has shown that time was an essential consideration to move from exploration to full sustainability. People need two to four years to

move through the process of exploration to sustainability (Fixsen et al., 2005; Hanna, 2003; Wallace, Blase, Fixsen, Naoom, 2008).

Dedicating time to the process was seen as both a benefit and a challenge. Teachers reported that they needed time to learn about the innovation so they could move the implementation forward. In the beginning stages of implementation, administration ensured that teachers were given time to learn how to use the tool. Additionally, each year the teachers have the opportunity to participate in professional development on the use of the tool.

After learning how to use the tool, time was needed to interact with the curriculum and to add content. An expectation of teachers was that after they created content, that it be submitted for uploading to the system. This process was time consuming for teachers. Collectively teachers reported that the biggest use of time occurred in the design of instructional units, lesson planning and creating support materials. However, on the flip side, teachers reported that the use of the tool was a time saver. It was a time saver in that content was captured electronically and teachers had the ability to easily reference previous units of instruction.

A second theme that emerged was related to leadership expectations, and was in two areas: 1) for use of the tool, and 2) creating content. The expectation for use of the tool was communicated early and often, being communicated to prospective teachers during the interview process, as well as regularly to other teachers. This expectation served as the leader's action for change (Hickman, 2010). The leader in the change process is the one who holds up the moral purpose, which contributes to the creation of a new reality for the school. The moral purpose motivates change and conceptually is at the center of the change initiative. Additionally, when everyone collectively joins together, they can achieve something for the greater good (Fullan, 2001; Hickman, 2010). Teachers responded by learning to use the tool, and creating curriculum.

In effect, the teachers worked together to create and design a curriculum that served the purpose of pulling teachers together around a common goal.

The school leaders not only set the expectation that the teachers use the tool but continuously reminded them of the benefits. The benefits included the creation of a common curriculum that was consistent between same grade/course classrooms. Additionally, since the curriculum was entered into a web-based system, it allowed all teachers access to the curriculum. The Principals held out the expectation for use by maintaining a constant conversation about the importance of the innovation, which was communicated to teachers in multiple ways. For example, there was a weekly reminder on the professional learning community agenda, a weekly checklist, and professional development opportunities. By engaging in these conversations coupled with expected participation, teachers developed a sense of accountability related to the use of the tool.

Interpretation

The interviews revealed that because of a perceived need for a stronger curriculum, the teachers requested permission to seek out curricular resources. Hickman's (2010) research identified conditions for change, one of which was the climate for change. Within the social context, the climate for change was established by the participants when they perceived a need for stronger curriculum. Principal Nick encouraged and supported this action, thus cementing the climate for the change process. This response supported the concept of "mobilizing people's commitment to putting their energy into actions designed to improve things" (Fullan, 2001, p. 9). The principals empowered teachers to assume an active role and contribute to the process, which resulted in a decision that focused on improvement for the entire organization. It was this initial

action that began the implementation process, even though at the time, the Principals did not recognize it as such.

When engaging in an implementation process, exploration and adoption should be the first considerations. As indicated, the Academy engaged in exploration, made a decision, and then moved to adoption. According to Fixsen et al. (2005), “The result of the exploration stage should be a clear implementation plan with tasks and time lines to facilitate the installation and initial implementation of the program” (p.15). At the Academy, there was not an indication of an implementation plan, nor any defined tasks and timelines. In fact, Principal Nick when asked about any implementation plans, said, “No, not really. When we decided or advocated to be a pilot school, the ISD said they would have a process by which to train the staff.” The ISD provided training to both Principals and teachers, as confirmed in document analysis. So contrary to Fixsen et al. (2005), the Academy did not develop an implementation plan, instead relied on the plans of the ISD in the adoption and installation stages.

The next stage was installation. This stage is an important part of implementation yet often overlooked (Wallace, Blase, Fixsen & Naoon, 2008). At this stage, organizational change begins. The tasks include preparation of the environment, structural concerns, human resource changes and determination of any policy changes. All actions are in preparation for initial implementation, which occurs when the innovation was put into practice. The findings revealed that not all of these preparations were considered at the outset. However, the innovation was put into place, resulting in change. “Change does not occur simultaneously or evenly in all parts of a practice or an organization” (Fixsen et al., 2005, p. 16). While the Academy has had the tool for four years, the teachers are at various stages of implementation. Some teachers have been at the Academy since adoption and were the ones that encouraged and supported any new teachers.

They served as the communicators that recognize and solve problems and continue to push toward full implementation (Fixsen et al., 2005).

In the literature there were clearly defined implementation drivers. The implementation drivers are grouped into three areas: competency, organizational, and leadership (Fixsen et al., 2005; Michigan Implementation Network, 2011; State Implementation, 2010) and are demonstrated conceptually in figure 2. Competency drivers are mechanisms to advance and sustain the innovation to benefit students and consist of the practitioners, training and coaching, and performance assessment. The Academy had the participation of teachers and on-going training and coaching occurred, which appeared to push the implementation forward. The Joyce and Showers (1995) classic study indicated that when training is accompanied by coaching, teachers retain 80-90 percent of what they learn. Teachers were provided learning opportunities beyond simple training sessions and were encouraged to seek learning opportunities both in and out of the building.

The organizational drivers are attentive to the working environment. They are to ensure an environment was created and sustained to support the innovation. Organizational drivers included facilitative administration and systems intervention (State Implementation, 2010). At the Academy, the leader was actively involved in facilitation or making things easier for the teachers. The Principal ensured that questions were addressed, teachers were provided what they needed for instruction, and time was protected to work with the tool.

The leadership drivers are closely linked to the organizational drivers. While the organization drivers focused on the facilitation and intervention, the leadership driver focused on the technical and adaptive aspects of implementation; any tasks that were needed to support and manage the implementation effort (Michigan Implementation Network, 2011). Principal Nick

was aware of the technical component of implementation. To assist in the work of adding content into the tool, an additional person was hired to specifically handle the technical aspect of the tool, as well as making sure that the curricular materials as created by teachers were uploaded and organized.

Taken as a whole, the implementation drivers are the actions and attitudes that move an innovation forward with the ultimate goal of full implementation. The implementation drivers work together and are compensatory in nature. “The interactive implementation drivers also compensate for one another so that a weakness in one component can be overcome by strengths in other components” (Fixsen et al, 2005, p. 28). At the Academy, the compensatory nature of implementation was evident. In the beginning, the Academy did not have a well-defined plan or processes in place. One teacher said, “It was a trial and error” process (teacher 8, personal communication, May 1, 2012). However, the efforts and hard work compensated and the implementation process continued to move toward full implementation. Evidence of the movement toward full implementation was the length of time the Academy had been working toward sustainability—four years! This stands in contrast to Becker’s (2011) research on the implementation of an evidence-based practice. Her research on curriculum implementation found that the teachers were “not concerned about implementing the practice” and most stopped using the curriculum (p.102). The teachers in Becker’s study reported that the lack of implementation support and the feasibility of implementation in relation to time constraints were the primary reasons for discontinuing use. Unfortunately, many implementation process results in disuse or failure for many reasons, yet at the Academy, the teachers appeared to continue to work toward full implementation.

As identified by study participants and confirmed during data analysis four factors emerged as drivers of the innovation. The four factors identified were: administrative support, teacher effort, common curriculum, and the potential for academic achievement. Three of these factors can be connected to the competency, organizational, and leadership drivers as identified by Fixsen et al. (2005), Michigan Implementation Network (2011) and the State Implementation (2010). These drivers illustrate that working within the context of implementation will cause the process to continue to move forward.

During data collection, the most common referenced driver was administrative support. Fixsen et al. (2005) identified administrative support as an organizational driver. Administrative support comes in many forms but it must have the intention of ensuring that the implementers have time to ensure effective implementation (Fixsen et al., 2005). An example of administrative support was the manner in which teachers were scheduled for collaborative instructional planning. Teachers were intentionally scheduled for common planning time, to meet with same grade level teachers with the purpose of coordinating instruction and delivery of the curriculum. Additionally, the Academy began to meet as professional learning communities (PLC). PLC meetings were an additional 45 minute, weekly block of time to discuss curriculum, CCT, and curriculum related concerns. The Principals created a schedule that grouped teachers in various configurations to support a mix of content areas and grade levels, or “purposeful interaction” (Fullan, 2001). A color coded calendar with objectives was provided to all teachers. This intentionally supported the organization driver of creating and sustaining a supportive work environment (State Implementation, 2011) where all teachers were expected to attend and be active contributors. Fullan (2003) identified the “effective” school as one who builds up the

professional learning community with principals and teachers working together over time with “these interactive communities examined and reexamined their practices and results” (p. 34).

The Principals relied on feedback from teachers to continue to facilitate change (State Implementation, 2010). The organizational driver is attentive to the environment (State Implementation, 2010), which can be enhanced by the building relationships and making meaning of the change (Fullan, 2001). Teachers were encouraged to enter into discussions with co-workers and leadership; they were also encouraged to reach beyond the building and enter into discussion with other teachers and the local trainers. This continuous feedback prompted and supported the new work in connection to the implementation.

An accountability factor for the teachers was the connection of the use of the tool to teacher evaluation. The Principal reported that this was a systematic process intended to further the implementation process. According to the State Implementation & Scaling-up of Evidence-based Practices Center (2010), the program and teachers must be evaluated on a regular basis to ensure that the work being done was effective and that needed changes were being made. At this early stage of including in teacher evaluation, the use of the tool has created greater accountability and increased engagement. This served to improve teacher familiarity with and greater use of the tool. The long term impact of this practice was not yet known.

Summary

The Academy embarked on the implementation process without a well-conceived implementation plan. Teachers recognized the need for a rigorous curriculum and the Principal supported by engaging in organizational change. While the Academy did not have all the pieces in place, they did draw upon the organizational and leadership drivers, which supported the

implementation process. It was the creation of work environment that supported and sustained the implementation of the innovation coupled with the adaptive nature of the leadership that the innovation was pushed forward.

The Leader

The second research question was: What is the role of leadership in this change? The sub-questions were (a) What is the leader's role in change in relation to the implementation process? and (b) How has the implementation process influenced principal's practice?

When participants were asked who was the instructional leader, the school leader was overwhelming identified by teachers. However, along with the Principals, the classroom teachers perceived their work in the process as a type of leadership role. Hickman (2010), labels this type of leadership in organizational change as "shared authority" (p. xv). Shared authority occurs when the leader works with and empowers all participants to be actively involved in the change process. It was the collaborative, collective nature of the work of implementation that led teachers to recognize their leadership abilities. Conceptually, this shared authority role is illustrated by the instructional leader, the teachers all working with the curriculum within the change environment (figure 2).

Shared ownership resulted in shared leadership as supported by Fullan's (2010) elements that synergize for purposeful action. For change to occur, something must be done, with a focus on developing skills, which increased clarity, and clarity resulting in ownership. Working together generated shared ownership. These elements summarized what happened at the Academy. Teachers were provided with the opportunity, with the training, resulting in shared

ownership. The Principals focused on developing the necessary skills for people to interact with the tool and as a result of teachers working closely together, shared leadership was achieved.

Throughout the data analysis process, the theme of shared ownership and shared leadership surfaced. Pearce and Conger (2003) define shared leadership as a “dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both (p. 1). Leadership was not determined by position of authority but rather by individual capacity to influence peers and by the needs of the team at any given moment (Pearce & Conger, 2003, p xi). The Academy’s need was to implement the innovation that had the potential to impact student achievement. Due in part to the dedication and commitment of the teachers, it was recognized that they were sharing in the leadership role.

As identified through analysis, the role of the leader was multi-faceted. The tags given were reflective of the actions of building principal. He was the trainer, facilitator, and champion. The trainer role encompassed educating teachers and communicating expectations. Fullan (2001) indicates that leaders must be the ones to create a learning community with a common culture of expectations. Additionally, the people in this community must be held accountable to the stated expectations. At the Academy, training was supported by coaching conversations, which were often two-way dialogues. The coaching conversations reinforced the professional development opportunities, which served to increase teacher learning (Joyce & Showers, 1995).

As revealed during an interview, the Principal saw himself as a “facilitator.” He recognized that he was the one that could make things easier for the teachers as they tackled the implementation process. The role of facilitator encompassed not only seeing needs but responding in a manner that continued to push the implementation forward. An example of this

was the need for understanding the CCSS. The Principals brought together a group of teachers and sent them to a training to meet this need. The Principals were in a position to revise policy and procedures to make changes that forwarded the process (State Implementation, 2010).

The role of champion, the defender of the cause, was the role that both Principals embraced. Understanding that any change process will be difficult and that people will revert to old habits; the champion must be the cheerleader in order to encourage interaction with the innovation. In the change process, when perceived as positive, energy is created (Fullan, 2001). The Principals had an enthusiasm for the work of change and this served to create a community of enthusiastic people.

Capacity and Competency

Developing capacity and competency associated with the training and coaching opportunities emerged from the data. It should be noted that one of the interview questions referenced building capacity, yet this theme prevailed in other areas, leading the researcher to recognize this facet as essential. As Birkey, Shelton and Headley (2006) illustrated, the principal is the one responsible for building teacher capacity to move toward effective change. To build toward competency, one must understand Fullan's (2006) teaching on learning: "learning in context and learning every day" (p. 61). At the Academy, Principal Nick was the one who encouraged and created opportunities for the teachers to receive training specifically on the use of the CCT. Multiple opportunities were made available, including professional development, administrative coaching, collaborative effort, and independent learning. These opportunities for learning in context were provided that effectively moved the teachers toward change.

Professional development sessions occurred prior to the beginning of the school year, and at scheduled times during the school year. In addition, time was scheduled once a month for all teachers to participate in professional development. Professional development moved beyond “sit and get” was essential to teachers learning (Joyce & Showers, 1995). This dedicated time was essential to build the competency of the teachers. It was at this time that teachers learned how to use the tool, but more importantly, teachers engaged in conversations around the curriculum, including creating content and linking assessments to the content. In this learning teachers were supported by each other, which serve to create an energized, engaged environment (Fixsen, 2001; Fullan, 2003; Hickman, 2010; Reeves, 2009).

Administrative coaching was provided by the Principals through coaching conversations. They were visible within the building and initiated conversations with the teachers. According to Blase and Blase (2004), it is the principal’s conversations with teachers that can influence reflective practice. In conferences, the dialogue between Principal and teacher enhanced teacher reflection about teaching methods, expected student outcomes, as well as informed teacher classroom behavior. As a result of conducting classroom observations and following up with critical conversations, teachers reported more self-reflective practice which led to improved practice.

Further, teachers reported building capacity was through collaborative, small group sessions. Collegiality and collaboration are built through grade-level team meetings (Reeves, 2009). The teachers reported working together and supporting each other in the learning by sharing tips, templates, and techniques. The collaborative nature of the building was apparent during site visits as teachers were observed engaged in collaborative discussions and sharing

knowledge. As a group they were committed to developing skills and learning with each other (Fullan, 2006).

Finally, teachers were provided with the opportunity to do independent, self-directed, explorative learning. This was learning that was based on the idea that knowledge is constructed by the learner. This was learning that occurred because of independent interaction with the innovation and the curriculum. Collectively teachers reported that learning was high during these times. According to City et al. (2009) and Fullan (2006), the one doing the work is the one who is doing the learning. It was the learning that occurred outside of the workshops, and within the context and culture of the school that had meaningful impact. Fullan's (2006) research indicates that learning best occurs within the context of the school community, when teachers are sincerely engaged in developing their skills by doing real work. It was in this capacity that understanding was cemented that "the learning is the work" (Fullan, 2006).

Interpretation

In the implementation process, the leader's role was multi-faceted. To be effective, the leader must know and understand the value and role of knowledge creation and institute habits of knowledge exchange within the organization (Fullan, 2001). Further, the leader must provide for learning opportunities within the school community. At the Academy, the learning primarily came through participation in professional development opportunities, professional learning communities, and common planning time. Not only had the school leader ensured that the various opportunities were available to the teachers, he also conducted observations, provided feedback, and invited the conversation, which effectively moved knowledge building forward.

From a leadership perspective, knowledge building was an intentional part of the implementation process. When engaging in implementation, teachers must be provided with training, coaching, and feedback that leads to proficiency (Fixsen et al., 2005). Fullan (2001) identified five components of leadership, one on which was knowledge building. Knowledge building or knowledge sharing is understanding that knowledge resides with people and becomes “valuable in a social context” (Fullan, 2001, p. 78). Hickman (2010) defined context, “as the setting or environment in which changes takes place” (p. xiv).

Therefore, within the context of the social community, when people interact with knowledge, realize the value and associated learning, they are more willing to continue to share, and continue to build knowledge. There must be a “collective process of shared learning skills and ability required to create conditions where collective learning can occur” (Pearce & Conger, 2003, p. 25). Hickman (2010) identified a similar practice, called organizational learning. Organizational learning encompasses continuous self-development, sharing ideas, seeking guidance and providing access to innovative ideas. The teachers appeared to have grasped this concept as they spent time participating in professional learning, working collaboratively, sharing knowledge.

Within the context of learning and knowledge sharing must be an understanding of the curriculum and how to effectively interact with the written curriculum. Schmoker (2011) said, “the common curriculum is the essential precondition for productive professional learning community” (p. 70). A critical part of the knowledge building was the time spent on understanding the curriculum and how to use the tool within the context of organized learning groups. Principal Nick ensured that teachers had opportunities to engage with others in understanding curriculum. An example of these types of opportunities were work group

participation at the local ISD. The focus of the work group was to understand the CCSS and curriculum development. This opportunity directly connected the work of the teachers in curriculum development.

The information shared by teachers supported the Fixsen et al. (2005) conclusion addressing the need for training, “effective training workshops appear to consist of presenting information (knowledge), providing demonstrations (live or taped) of the important aspects of the practice or program, and assuring opportunities to practice key skills in the training setting” (p. 41). The Principals at the Academy provided opportunities for teachers to engage in knowledge creation and knowledge sharing.

Summary

The Academy was actively engaged in building the capacity and competency of the teachers in the implementation of a curriculum management tool. The role of Principal Nick was trainer, facilitator, and champion. In these roles, he engaged in practices that showed the teachers that he valued knowledge creation and sharing this knowledge within the organization. It was because of this sharing of knowledge that capacity and competency was built, thus supporting an environment that fostered pushing the implementation process forward.

The Classroom Teacher

The third research question was: How does the innovation influence instructional and professional practice? The sub-questions were (a) In what ways has professional practice changed as a result of this innovation? and (b) How has the innovation changed instructional practice?

The innovation has had an impact on instructional and professional practice. One impact was the use of technology to manage the curriculum (Jacobs, 1997). According to Glatthorn, et al. (2009), the use of technology was a catalyst for change. The change to using a technology based system allowed the teachers to have electronic access to the curriculum, including learning objectives, essential questions, assessment options, vocabulary, and a resource bank. The curriculum management tool has become the central location for all curricular components with teachers adding content on a regular basis and having the ability to manipulate the content to meet the needs of students (Jacobs, 2010). Additionally, the web-based aspect of the tool has allowed teachers easier access to the curriculum. Teachers reported that they can access the tool wherever they have web access, which makes instructional planning more convenient.

The use of the curriculum management tool provided a structure for the intended curriculum (Marzano, 2003), yet allowed for flexibility in making instructional decisions. The tool was referenced by teachers as a “map,” as a “skeleton,” as a “framework,” or as a “guide” (personal communication, April 27, 2012) upon which the day-to-day lessons were built. The tool contained units of instruction that were aligned to state standards, yet did not dictate instruction. Teachers had the freedom to determine the order of the units and establish the pacing. To draw on the work of Glatthorn and Jailall (2009), teachers “enrich the curriculum” (p. 29) by adding content that meets the diverse and unique needs of their students. In this time of increased focus on mastery to a standard, and preparing students to be college- and career-ready (Michigan Department of Education, 2010, para. 3), teachers were developing engaging content that served to intellectually challenge students (Conley, 2011). According to City, et al., (2009) when teachers are given the opportunity to create conditions that influence what happens in the classroom and the interactions with the curriculum, school occurs.

Instructional practice was influenced by a transition to use of common assessments. The school leaders recognized the importance of using the common assessments that were included in the tool. Beginning in the 2011-2012 school year, the Academy moved to use of tool assessments in math and language arts. These assessments became known as the “common assessments.” The teachers were directed to administer the assessments with results submitted monthly. Principal Nick believed that the assessments mimic the style and format of the state mandated assessment, which allowed students the experience questions similar to that of a high stakes assessment. He indicated that this experience prepared students for greater success. According to Schmoker (2011), a common assessment is the “essential engine for continuous improvement” (p. 70).

Teachers were improving their practice. As a result of the assessment focus, teachers transitioned to using the assessment results to inform instruction. As teachers analyzed the data, they adjusted teaching strategies and methodologies effectively changing their practice (Ratner, 2010; Reeves 2009). Additionally, teachers reported that they began with the assessment and then backward mapped their instruction, taking into consideration what it was that students needed to know. This was beginning with the end in mind (Covey, 2004; Tyler, 1949; Wiggins & McTigghe, 1998), which led to “exploring and deepening their [student] understanding of important ideas and the design of the assessments reveal the extent of their understandings” (Wiggins & McTigghe, 1998, p. 3).

Another practice that was encouraged was being a reflective practitioner. After teachers gave the common assessment, tests were scored and proficiency determined. Then teachers engaged in thinking about what they did during lesson delivery and evaluating what worked well. “Reflective practice is founded on the assumption that increased awareness of one’s

professional performance can result in considerable improvement of performance (Blase & Blase, 2004, p. 86)

The use of the tool fostered a sense of consistency and collaboration among the teachers. Consistency and collaboration was achieved because the classroom teachers began looking not only at the assessment data, but also at the instructional content. Grade level teachers realized they needed to work together toward the same expectations with the same content. The delivery could vary based on teacher style, but the expectation needed to be consistent. The practice led to a more coherent curriculum. Schmoker (2011) and Marzano (2003) agree that having a clear, coherent curriculum has the single greatest impact on student achievement.

Collaborative Mindset & Teacher Voice

In the process of data analysis two themes emerged in relation to how the innovation influenced instructional practice. The theme were 1) developing a collaborative mindset and 2) the emergence of teacher voice. As observed during on-site visits and shared by teachers during interviews, an atmosphere of collaboration was apparent. Since the implementation of the curriculum management tool, teacher's collaborative efforts have increased.

According to Blase and Blase (2004), "collaborative networks among educators are essential for successful teaching and learning" (p. 65). Teachers reported that there were opportunities for collaboration with other teachers on curriculum development (Blase & Blase, 2004), and the use of the curriculum management tool. Jacobs (1997) suggested that by editing, shaping and adding to our curriculum, there is a genuine sense of collaboration (p. 23); this was evidenced at the Academy both by interviews and on-site observations. Teachers also reported that working together positively influenced their instructional practice.

Opportunities for collaboration were both formal and informal in nature. Formal, or organized opportunities, were provided to teachers in grade level team meetings, during professional development, and in professional learning communities. Schmoker (2006) noted that collaboration should be structured to obtain specific results. Additionally, informal collaboration occurred when teachers met over lunch time, after school, or just when “we run between each other’s rooms” (teacher 9, personal communication, May 1, 2012). Real discussions on student achievement occurred during these informal gatherings (Reeves, 2009).

The use of common assessments contributed to teacher collaboration. Principal Betsy recognized that when common assessment scores were compared and shared with same grade teachers, teachers began to work more collaboratively, planning instruction, and sharing instructional strategies. The research of Blase and Blase (2004) supported the concept that successful principals encouraged collaboration especially when implementing innovative ideas.

A contributing influence to the collaborative atmosphere of the Academy was the emergence of teacher voice. Teacher voice, as defined by Gyurko, (2012), was “the expression by teachers of knowledge or opinions pertaining to their work, shared in school or other public settings, in the discussion of contested issues that have a broad impact on the process and outcomes of education” (p. 4). Wilson (2012) offers that teacher voice is considering teachers professional opinion grounded in their knowledge about teaching and learning.

Prior to the adoption of the curriculum management tool, teacher voiced their concern about the need for a more rigorous curriculum and felt that their voice was heard. Principal Nick listened to the request and subsequently moved the Academy toward the use of the curriculum management tool. During the implementation process, teachers were encouraged to share their knowledge, concerns, and suggestions for refinements to the tool. As the teachers became more knowledgeable

about curriculum, curriculum design, and the linkage to assessment, teachers became deeply engaged in process of curricular change. As a result, teachers were engaging in higher levels of professional conversation.

With this active involvement in creating the written curriculum, the teachers were effectively having a stronger voice in their practice, with the potential of positively impacting educational outcomes. As teachers discovered their ability to work and learn together, it served to strengthen their collective voice.

Interpretation

The classroom teacher holds a unique and distinct position at the Academy. The classroom teacher was the creator of the curriculum and the designer of instruction. The classroom teacher guided teaching and learning. While oftentimes teachers make independent instructional decisions with no clear indication of following the written curriculum (Marzano, 2003; Schmoker, 2006), this was not happening at the Academy. With the implementation of the curriculum management tool, the instructional decisions were coordinated and consistent (Reeves, 2009; Schmoker, 2006), which improved instructional practice.

Professional practice was impacted by the use of technology-based tool to manage the written curriculum. The tool was intended to be a central location for the curriculum and to allow teachers easy access. Since the tool was web-based, teachers were able to access the curriculum as intended “always on, always updated” (*Curriculum crafter*, 2008). The tool provided a structure for the teachers yet allowed for adaptation and modification of the curriculum to adapt instruction. This use impacted instructional practice in that it allowed for flexibility in instructional decisions.

The use of the common assessments changed professional practice. Teachers were held accountable for the use of these assessments, and they were encouraged to think about the assessment results (Jacobs, 1997). It was this action that increased reflective practice at the Academy. Teachers were more engaged in thinking about assessment both prior to and after instruction. By engaging in assessment practice, instructional practice was changed as teachers were more aware of the delivery of essential objectives, the need to drive instruction to a deeper level and to provide consistent instruction across grade level classrooms. All students were being provided the same opportunity to learn.

The opportunities for collaboration change professional practice. Teachers were provided opportunities to work together in multiple settings, both formal and informal. As teachers were more engaged with their colleagues in the creation and delivery of the curriculum, the instruction was more consistent and more focused (Schmoker, 2006).

Summary

Teacher's practice was impacted by the implementation of the curriculum management tool. As the teachers began the work of learning how to use the tool, collaboration and critical conversations resulted in the emergence of a stronger teacher voice. Due in part to the planned opportunities to collaborate, instruction has greater consistency with stronger coordination between classrooms. The Academy Principals expected teachers to use common assessments, which served to guide instruction. This expectation led teachers to think in new ways about their professional and instructional practices.

The Connection to Policy and Practice

The fourth research question was: What can be learned from implementation of the innovation that can inform others in policy and practice? Public policy has its roots in state and federal government with the issuance of rules and regulations that directly impact at the local level. State and federal policy mandates contribute to the external pressure that push into a school and create tension in the environment. According to Hickman (2010) the reaction to this pressure creates social strain and sets up the conditions for change.

Educational reform issues have impacted schools from the impact aid laws in the 1950's and continued through the passage of the Common Core State Standards Initiative in 2010. The intention of the CCSS is to provide "all students with an equal opportunity for an education, regardless of where they live" (NGA/CCSSO, 2010). Schools must have great teachers and leaders, produce college- and career-ready students, and provide equity and opportunity for all students, all the while raising the achievement bar (US Department of Educations, 2010).

The policy issue most impactful to the Academy was the need to produce college- and career-ready students. The actions of leadership and teachers were driven by the need to provide a quality learning environment that focused on student needs. As a result, leadership and teachers engaged in a continuous process of curriculum review. It was the need for a rigorous curriculum that brought the Academy to the place where they adopted a curriculum management tool. It was the need to make revisions and create new curriculum that keeps them using the tool.

In the context of this research, principals and teachers were asked how they saw implementation impacting policy and practice at the local level. The Principal saw the biggest concern to local policy and subsequent practice was the need to ensure that all teachers had buy-in and subsequently worked toward implementation of the curriculum management tool. He

recognized that teachers could have “authentic concerns” and that, if not addressed, these concerns could escalate and hinder or even stop the implementation process. Fixsen et al. (2005) indicated that in the initial implementation stage the comfort with a known process combined with the fear of change could hinder or even cause the process to fail. Principal Nick recognized that the environment must support all aspect of the implementation and took sought solutions to any concerns.

Common Language and On-line Accessibility

The intention of this research question was to determine what could be learned from implementation of the innovation to inform others in policy and practice. In data analysis, two benefits emerged that can advance the implementation process for both the Principal and the teachers. The benefits that can inform others in their practice were developing a common language and on-line accessibility.

The teachers realized that because of the innovation, a common language around curriculum and curriculum development had emerged within the Academy. Ainsworth (2010) in his work with curriculum committees and curriculum development often found that questions surfaced related to clarification of terminology. The fact that teachers recognized that they were “speaking a common language” (Ainsworth, 2010, p. 9) fostered an environment that supported implementation. As teachers engaged in professional conversations, a common language emerged. While this practice was not captured in writing, the teachers felt that their conversations were richer because everyone was speaking the same language.

Further, a second benefit to impact teacher practice was on-line accessibility. While teachers continued to print documents and some teachers kept binders of materials, there was an

appreciation for the web-based feature of the tool. Teachers were easily able to access the curriculum, anytime, anywhere. With this ability, teachers did not have to do all their work within the school building.

Interpretation

Teachers were talking about the curriculum. In the Academy setting, with the multiple opportunities for collaboration, teachers were engaged in professional conversations that contributed to an environment that supported curriculum creation. Implementation can meet with greater success and sustainability in a supportive environment.

In the 21st century, the impact to practice will be the emergence and use of curriculum management software (Jacobs, 2010). The use of web-based tool will support teachers in their ability to create and capture content. Additionally, curriculum management tools will allow for manipulation of content and provide for differentiation to meet the needs of students (Jacobs, 2010).

This use of web-based tools will continue to push change and influence policy. Policy is set by leadership as a means to achieve the goals of the school. The principal is the one to oversee and enforce policy decisions. As the Academy, the Principals supported the implementation and made this policy a reality by monitoring, overcoming obstacles and ensuring the environment was supportive. Teachers supported the policy by actively engaging in the implementation process.

Summary

State and federal policy have pushed into the school, affecting the environment for change. The change at the Academy was the implementation of a curriculum management and

design tool. This tool was selected as the best vehicle to meet the social expectation for a quality and equitable education for all students. In the process of implementation, the practices of the local school were changed. The use of an on-line tool is becoming the way to doing business in the 21st century and the research site was putting practices in place to facilitate this change.

Implications

Schools are challenged with the need to build cohesive, rigorous curriculum. With the increased emphasis on instruction based on common standards and high levels of accountability, educators are seeking ways to effectively manage the written curriculum. The use of curriculum management and design tools are a way to meet this need as well as offer online accessibility (Ainsworth, 2010; Jacobs, 2010). This study has implications on three levels: 1) for the instructional leader, 2) for the classroom teacher, and 3) for the student.

This study informed instructional leadership practice by critically examining the implementation process in order to gain an understanding that implementation must be more than just a word. Often times, one hears “implement” with the inference that implementation will just happen. It is rarely considered from the perspective that implementation is a multi-stage, iterative process, requiring instructional leaders to understand the complexities, the hard work, and the time necessary to move an innovation toward full implementation and sustainability (Fullan, 2001; Hickman, 2010; Kotter, 1996).

Implications from this study are grounded in the many misconceptions associated with implementation. Frequently innovations are brought into the school without first considering preparation of the environment in order to be ready to receive the innovation. Implementation planning is lacking or even non-existent. Professional development is given but usually in

isolation and with little connection to the innovation. Often training is a one-time occurrence with little follow-up coaching (Showers & Joyce, 1995). Additionally, there is thinking that assumes that an innovation will be successfully used without further input from leadership or additional support to teachers. Teachers are left on their own to make instructional decisions (Marzano, 2003, Reeves, 2009; Schmoker, 2011). As these misconceptions are addressed and overcome under the guidance of the instructional leader, the implementation process, while not smooth, can proceed forward to the benefit of all stakeholders.

Implementation is a complex process. This study examined implementation in light of the innovation, a curriculum management and design tool, the CCT. The use of online, web-based tools has risen as educators see the need for more flexibility in the interactions with and capturing the written curriculum. Curriculum management tools have a range of features and potential benefits, yet without a clear understanding of the implementation process, the potential for failure will be high.

This study also has implications for the classroom teacher. The work of teachers continues to change with teachers becoming more engaged and participating as active contributors to the written curriculum. No longer can teachers remain isolated, making independent and idiosyncratic decisions (Marzano, 2003). Teachers must recognize that to be successful they must come out of the classroom and work collaboratively with others (Hess, 2004; Lanier, 1997; Schmoker, 2006) on the development of the curriculum, ensuring there is continuity across classrooms and content areas. Teachers must be provided opportunities to have the time to work, both independently and in teams, in order to engage in critical conversations about the curriculum. These conversations will deepen teacher understanding of curriculum and thus increase the level of teaching to prepare students for 21st century living (Ainsworth, 2010).

Finally, while this study did not directly examine student achievement, the student must not be left out of the equation. Students and student needs must be at the heart of any curriculum creation process (Ainsworth, 2010). As the adults in the process create the curriculum, it must remain flexible and be adaptable to meet the diverse needs of all students. The learning experiences prepared for students must be engaging and allow students to think deeply about concepts, leading to an understanding of how knowledge is connected so they can move toward higher levels of student achievement.

Critique of the Study

The most challenging aspect of this study was the necessity to tease apart the innovation from the implementation. The purpose was to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. In my work with schools, I often saw that while a tool had been adopted with the intention of impacting instruction and the delivery of the curriculum, the tool fell into disuse and teachers reverted to prior practice. Engaging in research seemed the best path to better understanding what was occurring.

In the design of the interview question four, I realized that this question could have been worded to probe more deeply into the larger issue of policy and practice. In retrospect, my study design could have been strengthened if the interview questions had a stronger emphasis on the larger picture of policy and practice with consideration of the direct impact of state and federal policy on the local school.

Recommendations for Future Research

As discovered throughout this research project, there are several areas where further research could be warranted. First, this study was conducted at one research site, limiting the number of participants and thereby limiting participant input. Therefore, conducting comparative descriptive research in which data were collected between two or more schools with a focus on the use of a curriculum management and design tool would be valuable. To obtain an information-rich case (Patton, 2002), a research site was selected because of the length of time the school used the tool and the perception of successful implementation. By expanding the research sites to include schools struggling with the implementation, a perspective of hindered implementation could be gleaned.

Second, a longitudinal study that would include analysis of student achievement data over time would be beneficial to evaluate the effectiveness of the curriculum. In order to allow time for implementation and to impact student achievement, this study would require a longer time frame, possibly collecting and comparing data over multiple years. Data collected prior to the change to a curriculum management tool with yearly analysis could represent the influence of closer alignment of the written and the taught curriculum from year-to-year.

Third, a study that focused on the impact on school culture when implementation and change were undertaken. School culture impacts how a school community operates. Understanding school culture in the midst of an implementation process would be valuable to a school leader as they navigated a change environment.

Fourth, since the innovation was technology based, a comparative study using different tools would add to the literature. There has been an increase in the number of products that offer technology-based systems to assist with curriculum development. Many schools, and in

particular small innovative schools, are seeking ways to electronically manage the curriculum. A study that compared different tools would benefit decision makers.

Fifth, an interesting discovery that emerged was the connection between teacher use of the curriculum management and design tool and teacher evaluation. Are there any unintended consequences to this practice in relation to teacher evaluation? Will linking use to teacher evaluation positively or negatively impact teacher use of the tool? In an era of focus on teacher evaluation, this type of study would inform the literature.

Conclusion

Through a qualitative case study, this research examined how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. The innovation was a curriculum management and design tool, the Curriculum Crafter Tool. This tool was being implemented at the research site and had become a part of the Academy's way of doing business.

On the surface when one compares the research site to the literature on implementation, the research site did not explicitly follow the implementation cycle as outlined by Fixsen et al. (2005). In the initial stages, the research site did not conduct an extensive exploration process. They did not seek initial buy-in. They did not have an extensive written implementation plan.

However, the actions taken by the Principals and teachers compensated for the actions they did not consider. As the building leader, Principal Nick listened to the teachers request for a stronger curriculum. The curriculum management tool became the vehicle to develop the Academy written curriculum. The Principal recognized that he must be the one to hold out the vision for moving the innovation forward (Fullan, 2001; Hickman, 2010; Kotter, 1996). As the

instructional leader, he needed to keep everyone focused on the implementation of the tool and not let other initiatives or habits take people off task.

The Principals recognized the importance of allowing teachers time to learn about the innovation and the necessity to set clear expectations. Teachers were expected to use and contribute to the written curriculum, which served as the basis for instructional and assessment decisions. It was as the Principals built teacher capacity and allowed teachers to become experts in curricular design that ownership was fostered. This led to a community of shared leadership with teachers who were engaged and energized in the process (Fullan, 2010; Hickman 2010).

Teachers felt they were contributing partners in creating a curriculum for the students at the school. For example, one teacher said, “I love it [the tool]” (teacher 11, personal communication, May 1, 2012) and “wow, we are doing it [creating curriculum]; we are creating for our students” (teacher 18, personal communication, May 1, 2012). Statements like this convey engagement and the perceived value of working together with a vision to positively impact student achievement.

The intention of this study was to understand how a school implemented an innovation, and how this changed professional practice. In the end, it was the realization that implementation is more than just a word. Implementation is not an event; it is a process that must be approached from the mindset that the actions after adoption are critical to innovation success (Fixsen et al., 2005). To move an organization beyond superficial implementation, change is necessary (Fullan, 2003). Together, implementation and change are complex, continuous, and challenging ventures (Fixsen et al., 2005; Hickman, 2010); a dynamic process of moving people toward new practices (Fullan, 2010). Implementation is the hard work of changing actions and attitudes so that the innovation meets with success.

APPENDICES

APPENDIX A

INFORMATIONAL PHONE INTERVIEW WITH MANAGER OF CCT

November 10, 2010

Thank you for taking the time to meet with me and to discuss this project. My purpose today is to gather some initial data on the KC4 and specifically the Curriculum Crafter Tool (CCT) as I craft my research proposal so that the information learned from this study will benefit the CCT community and add to the body of knowledge surrounding the use of a curricular innovation. In my initial discussions with Danna Ferris, CCT Consultant, there was a request for a doctoral level student to conduct research on this tool and with my interest in curriculum, curriculum development and the use of technology am planning on pursuing this research project.

Curriculum Crafter Tool (history)

1. Tell me about the inception and creation of the Curriculum Crafter Tool? (history)
2. It is my understanding that this tool developed out of the Kent County Collaborative Curriculum; how did this transition occur?
3. Who was involved in the process of developing this tool?
4. How long was the development to implementation process?
5. Any challenges along the way?
6. What term do you use to describe the CCT...online tool, web-based curriculum?

Current Use

7. How many schools currently use the tool?
8. Can you describe the types of schools that use the tool? (psa, public, non-public)
9. Have any schools abandoned the use of the tool?

Research Focus

10. What is it that you would like to gain from a research study?
11. What is it that you want to know about the tool?
12. Would the ISD be willing/able to share the names of schools that use the tool?
13. What type of permissions would be necessary?

APPENDIX B

E-MAIL TO ACCOMPANY INFORMATIONAL SURVEY

A Case Study Examining the Implementation of a Curricular Innovation in a K-12 School

Dear _____,

I am a doctoral student in the Department of Educational Leadership at Central Michigan University. I have proposed a research project related to the level of implementation of the Curriculum Crafter[®] Tool (CCT) within a school building. The Curriculum Crafter Tool is a dynamic web-based curriculum management and design tool that offers embedded, research-based curriculum. This research seeks to understand how the CCT is implemented and the impact on instructional and professional practice.

You are receiving this invitation to participate because you have been identified as a school that has adopted and use the CCT. The purpose of this survey is to determine the extent to which the Curriculum Crafter Tool is integrated and in use at your school.

This brief survey consists of 10 questions and should take approximately 5 minutes to complete. Please be assured that this survey is voluntary and your answers will be kept confidential.

If you have any questions regarding this research, please contact me by phone at 249.505.5409 or by email at elizabeth.herronruff@gmail.com or contact Dr. Kirby, Dissertation Chair, by phone at 989.774.1503 or by email at betty.kirby@cmich.edu. Additionally, if you have any questions about your rights as a research participant, you may contact Central Michigan University's Office of Research and Sponsored Programs at 989.774.6777.

In advance, thank you for taking the time to complete this survey. Your input is valuable because research projects are often the basis for improvements in education.

Regards,

Elizabeth A. Herron-Ruff

APPENDIX C

INFORMATIONAL SURVEY

A Case Study Examining the Implementation of a Curricular Innovation in a K-12 School

This brief survey will ask questions regarding the level of implementation of the Curriculum Crafter[®] Tool (CCT) within your school building. The Curriculum Crafter Tool is a dynamic web-based curriculum management and design tool that offers districts and schools an embedded, research-based curriculum. This research seeks to understand how the CCT is integrated and impacts professional practice.

Your answers will be kept confidential. If you have any questions regarding this study, please contact Elizabeth Herron-Ruff at elizabeth.herronruff@gmail.com or by phone at 249.505.5409 or contact Dr. Kirby at betty.kirby@cmich.edu or by phone at 989.774.1503. Additionally, you may contact Central Michigan University's Office of Research and Sponsored Programs at 989.774.6777.

Please answer the following 10 questions:

1. Does your building use the Curriculum Crafter Tool?
 Yes No (If no, the survey is complete.)
2. How long has your building been using the Curriculum Crafter Tool for curriculum management and design?
 1 year 2 years 3 years 4 years
3. Are all teachers using the Curriculum Crafter Tool?
 Yes No Maybe
4. Has your school offered professional development on the use of the Curriculum Crafter Tool?
 Yes No (If no, continue to #6)
5. How long ago was the last professional development opportunity that specifically related to the use of the CCT?
 Current school year 1 year 2 years 3 years 4 years

6. Please indicate a response that best describes your current status of implementation of the Curriculum Crafter Tool:

_____ a. We have adopted the CCT and have an implementation plan with timelines and tasks in place.

_____ b. We are in the early stages of implementation and have had the initial training as offered in the purchase contract.

_____ c. We have fully implemented the Curriculum Crafter Tool. The CCT is integrated into our professional practice and procedures.

7. Would you consider your school a model school in regards to the implementation and use of the Curriculum Crafter Tool?

_____ Yes _____ No _____ Maybe

8. Would you be willing to participate in a study of your schools implementation processes and procedures as it relates to the Curriculum Crafter Tool?

_____ Yes _____ No _____ Maybe

9. If your response to question #8 is yes, please provide the following information. I will contact you by telephone to explain the time frame and the expectations for research participation.

a. Your Name: _____

b. Your School: _____

c. Your School Address: _____

d. Your email address: _____

e. Your phone number: _____

10. Are you aware of another school that you would consider a model school in regards to the implementation and use of the Curriculum Crafter Tool? If so, please provide the contact name, school name and address. _____

I appreciate your time and willingness to respond. Thank you for your participation.

APPENDIX D

REQUEST FOR PARTICIPATION FROM PUBLIC SCHOOL

<INSERT DATE>

Superintendent
Public School District in Michigan
<insert Address>
<insert City, State Zip>

Dear <insert name>,

As a doctoral student in the Educational Leadership program at Central Michigan University, I am conducting a dissertation study to discover how a school implements an innovation and to better understand how this innovation changes instructional and professional practice. You are receiving this letter to request permission for me to conduct this research in your district. The principal has given his/her oral agreement to participate in this project. The participation requirements of the principal and classroom teachers who voluntarily participate will be one interview that will last between 30-45 minutes.

The benefits you may expect from the study are: (a) an opportunity for your staff to reflect on their professional practice as they have implemented a curriculum management and design tool and (b) an opportunity to contribute to the growing body of research related to curriculum management and design tools. This research project is the foundation for a doctoral dissertation; additional publication may result from the final project.

The names of the district, building and participants will be held in the strictest of confidence. Identifying information of district, building, and participants will be substituted with pseudonyms during reports of interview results, but titles of participants will remain, such as principal or classroom teacher. Any comments sensitive in nature will be attributed in a more general manner. Responses will be extremely helpful in furthering the understanding of an implementation of a curriculum management and design tool.

Please indicate below whether you are willing to allow such research to occur in your school district:

_____ Yes, I am willing to have principal(s) and classroom teachers participate in this research.

_____ No, I am not willing to allow this research to occur in my district.

Please initial that you have read this page: _____

Thank you for your cooperation. If you have any questions about the study, you may contact me at 248.505.5409 or by email at elizabeth.herronruff@gmail.com. The study advisor, Dr. Betty Kirby, is available to answer questions at 989.774.1503 or by email at Betty.Kirby@cmich.com. Furthermore, if you have any questions or concerns, you may contact Central Michigan's University's Office of Research and Sponsored Program at 989.774.6777.

Please sign and mail your response using the enclosed, self-addressed, stamped envelope.

Sincerely,

Elizabeth A. Herron-Ruff, Doctoral Student
Educational Leadership Department
Central Michigan University

My signature below indicates that I have voluntarily decided to allow principals and classroom teachers in my district to participate in this research project and that I have read and understand the information provided.

Superintendent's Printed Name	Superintendent's Signature
Date	

In my judgment, the subject is voluntarily and knowingly giving informed consent to all participation in this research study by principals and teachers in his or her district.

Elizabeth A. Herron-Ruff	
Investigator's Printed Name	Investigators Signature
Date	

APPENDIX E

E-MAIL SEEKING PARTICIPATION IN STUDY

Dear Mr. /Mrs. /Dr.:

I am writing to ask you to participate in an interview for a research project. The research is being conducted as part of my dissertation work in Educational Leadership at Central Michigan University. I have received permission from the Superintendent <insert title> and principal <insert name> to conduct research on your campus. I chose <insert name of school> because it has adopted and implemented the curriculum management and design tool, Curriculum Crafter Tool (CCT).

I will be at your school on <insert date > I would like to meet with you during your planning time. Please respond to this email if you would be willing to meet with me for an interview. I also need to know the time you are available to meet.

A main focus of my study is to gain individual perspective on change to instructional and professional practice that has occurred at the school due to the implementation of the CCT. Results from individual interviews will be used to discover how the school implemented this innovation and any associated processes and procedures.

During interviews, my interest will be in perceptions of role change because of the adoption of the CCT. Additionally, I am interested in what procedures and processes were used to move the school toward full implementation. I am interested in any stories or examples that can be shared based on your experience. I am also interested in any documentation which may be helpful in understanding how change has occurred.

The interview will be conducted at the school and will last approximately 30 minutes. Interviews will be digitally recorded, with participant permission, and can be ended at any time. Participants may choose not to answer specific questions. In any reports related to this study, no comments will be attributed to participants and I will hold all responses in confidence to the fullest extent. If you agree to be interviewed, please respond to this email. I have enclosed a consent form for your review. I will ask for your signature when I meet with you.

Thank you for your consideration. Please feel free to contact me at 248.505.5409 if you have any questions. If you have questions regarding your role and rights as a subject of research, you may also contact the Office of Research and Sponsored Programs at Central Michigan University, 989.774.7777.

Sincerely,

Elizabeth A. Herron-Ruff
Doctoral Candidate

APPENDIX F

ADULT CONSENT FORM



Study Title: A Case Study Examining the Implementation of a Curricular Innovation in a K-12 School

Research Investigator: Elizabeth A. Herron-Ruff, Educational Leadership; Dr. Betty Kirby, Committee Chair, Educational Leadership

Contact information for researcher: Elizabeth A. Herron-Ruff, 1355 E. Drahner Road, Oxford, MI 48371, 248.505.5409. Dr. Betty Kirby, Educational Leadership Department, EHS Building - Room 34, 195 E. Ojibway Court, Mt. Pleasant, MI 48859, 989.774.1503

Introductory Statement. School environments are dynamic. New programs and innovations are often introduced into the school, with the expectation that professionals will embrace and implement with fidelity the new process and programs. This research is designed to understand the implementation process used by principals and teachers. I would like to invite you to be a participant in this study. The details of the study are provided in the consent document. If you have any questions, please contact Elizabeth A. Herron-Ruff, using the above information.

What is the purpose of this study? The purpose of this dissertation is to discover how a school implements an innovation with a particular focus on better understanding how this innovation changes instructional and professional practice. The focus will be on the implementation process as it relates to the use of the web-based curriculum management and design tool as a means of delivery of a standards-based curriculum.

What will I do in this study? I will participate in an interview which will allow the researcher to gain a better understanding of the curriculum design and management tool. Additionally, I will allow the researcher access to documents that will allow for understanding. I understand that there are no procedures that are experimental.

How long will it take me to do this? A single interview will last approximately 30 minutes. A follow-up visit, if necessary, will last approximately 30 minutes.

Are there any risks of participating in the study? There are no anticipated risks associated with participation in this study.

What are the benefits of participating in the study? The benefit of participating in this study will be the acquisition and sharing of knowledge on the implementation of a curriculum

management and design tool within a school system. The information gained from this study should enable others to make informed decisions about effectively implementing and using web-based curriculum design and management tools.

Will anyone know what I do or say in this study (Confidentiality)? All information will be held in confidentially; no revealing information will be shared with any person or organization. In all instances, the data will remain under the investigators control and will, if disclosed, be presented in a manner that does not reveal the subjects identity, except as may be required by law. The interviews will be digitally recorded and securely stored by the researcher. If a subject withdraws before completion of the study, the data will not be used for further analysis and any digital recordings will be destroyed.

Will I receive any compensation for participation? There will be no compensation or fee paid to the subjects participating in the study.

Is there a different way for me to receive this compensation or the benefits of this study? There are no alternative compensation procedures available to participants.

Who can I contact for information about this study? Elizabeth A. Herron-Ruff, 1355 E. Drahner Road, Oxford, MI 48371, 248-505-5409

You are free to refuse to participate in this research or to withdraw your consent and discontinue participation in the project at any time without penalty or loss of benefits to which you are otherwise entitled. Your participation will not affect your relationship with the institution(s) involved in this research.

If you are not satisfied with the manner in which this study is being conducted, you may report (anonymously if you so choose) any complaints to the Institutional Review Board by calling 989-774-6777, or addressing a letter to the Institutional Review Board, 251 Foust Hall, Central Michigan University, Mt. Pleasant, MI 48859.

My signature below indicates that all my questions have been answered. I agree to participate in the project as described above.

Signature of Subject

Date Signed

A copy of this form has been given to me. _____ Subject's Initials

For the Research Investigator—I have discussed with this subject the procedure(s) described above and the risks involved; I believe he/she understands the contents of the consent document and is competent to give legally effective and informed consent.

Signature of Responsible Investigator

Date Signed

APPENDIX G

INTERVIEW PROTOCOL

Prior to Interview

- Meet with principal to discuss the scope of the research
- Inform principal about nature, number and length of teacher interviews
- Obtain list of all teaching staff members and school schedules, including any team or grade-level meetings
- Schedule interviews. Each interview will last approximately 30-45 minutes and will be conducted to minimize disruption to instructional time
- Request any supportive artifacts

Conducting Interviews

- Start each interview with an introduction of self and the purpose of the study
- Review the consent form and obtain written permission to interview
- Ensure confidentiality by assigning a number to the interview
- Assign a code for the interviewee and to the associated notes and audio recordings
- Ask for permission to audio record the interview; all recordings and subsequent transcripts will stay in the researchers possession and will not be used in any way that make identification possible
- Ask all interviewees the written interview questions, be open to new information as it is revealed
- Use the same questions for each interview, being open to follow-up on any relevant information that is revealed

After Interview

- Review notes and write memos about general impressions
- Record any additional questions that arise; determine how to address and include writing a memo about the process
- Prepare recordings for transcription
- Send thank you to the individual interviewee as well as to the school principal
- Create the opportunity to return to site as necessary

APPENDIX H

INTERVIEW QUESTIONS: PRINCIPAL

The following questions are based on the major research questions.

1. Describe the process your school used to select a tool to utilize for curriculum management and design? Were there any specific factors that compelled the school to select this particular tool?
2. Building capacity is a critical component of driving implementation forward; what capacity building opportunities were provided to classroom teachers?
3. Professional Development is an important component of school improvement when introducing a new practice to the school. In relation to this tool, what Professional Development has been offered and how was it conducted? (Note any key practices that were introduced)
4. From your perspective as an instructional leader, what do you see as the driving force(s) to move this practice forward?
5. How do you see your role as instructional leader in the change process as it relates to the implementation of an innovation?
6. How has your work as principal changed, prior to the implementation of the curriculum management and design tool? (How is the school different now than before using a tool?)
7. Describe how the teaching staff has responded to the implementation and use of this tool?
8. What are the challenges or difficulties you experienced with the use of this tool and how were these challenges overcome?

9. As the instructional leader, explain how you use this tool and how this tool has changed your practice?
10. How do you ensure teachers are using the tool (monitor use)?
11. From your perspective, how has this tool changed teacher practice?
12. Understanding that the implementation process can have intended as well as unintended changes, describe the outcomes of this implementation.
13. Is there anything else you would like to share about your implementation process as it related to the curriculum management and design tool? What advice would you give someone who is considering implementation?

APPENDIX I

INTERVIEW QUESTIONS: CLASSROOM TEACHERS

The following questions are based on the major research questions.

1. Describe the process your school used to select a tool to use for curriculum management and design? Were there any specific factors that compelled the school to select this tool?
2. As a classroom teacher, were you involved in the selection process? Were others (including teachers) involved in the process?
3. Building capacity is a critical component of driving implementation forward; what capacity building opportunities were provided to you as a classroom teacher?
4. Professional Development is an important component in school improvement when introducing a new practice to the school. In relation to the use of this tool, how were you introduced to the tool, what Professional Development was offered and how was it conducted? (Note any key practices that were introduced)
5. As a classroom teacher, what do you see as the driving force(s) to move this practice forward?
6. Who do you see as a leader in the implementation of the curriculum management and design tool and in what ways has leadership been provided?
7. Have there been any collaborative opportunities in the implementation process? If yes, describe this collaborative environment.
8. Explain how you use the curriculum management and design tool. What functions of the tool are beneficial; are there any functions that you do not use?

9. What are the challenges or difficulties experienced with this tool? How did you overcome these challenges?
10. The use of a curriculum management and design tool can influence instructional decisions. How does the use of this tool impact your instructional planning and decision making?
11. How are curricular decisions different now from the previous system?
12. From a teacher perspective, what is the greatest advantage of using a curriculum management and design tool?
13. What was most difficult aspect of implementing this tool?
14. Is there anything else you would like to share about your implementation process as it related to the curriculum management and design tool? What advice would you give someone who is considering implementation?

APPENDIX J

CROSS-WALK TABLE

	Interview Question	Interview Question	Interview Question	Interview Question	Related Literature
Research Question 1					
How does the school implement an innovation?					
a. How did the school choose this innovation?	P1/T1: Describe the process your school used to select a tool to use for curriculum management and design? Were there any specific factors that compelled the school to select this particular tool?	T2: As a classroom teacher, where you involved in the selection process? Where others (including teachers) involved in the process?	P3 / T4: Professional Development is an important component of school improvement when introducing a new practice to the school. In relation to this tool what Professional Development was offered and how was it conducted? (Note any key practices that were introduced)		Fixsen et al., 2010; Hickman, 2010; State Implementation, 2010; Michigan Implementation, 2011
b. What drives the innovation (new practice) forward	P2/T3: Building capacity is a critical component of driving implementation forward; what capacity building opportunities were provided to classroom teachers?	P4: From your perspective as an instructional leader, what do you see as the driving forces(s) to move this practice forward?	T5: As a classroom teacher, what do you see as the driving force(s) to move this practice forward?	T6: Who do you see as a leader in the implementation of this curriculum tool and in what ways has leadership been provided?	Fixsen et al., 2010; State Implementation, 2010; Michigan Implementation, 2011
c. What are the barriers to implementation ?	P8/T9: What are the challenges or difficulties you experienced with the use of this tool? How did where there challenges overcome?				Fixsen et al., 2010; Walters & Cameron, 2007; Fullan 1977; Fullan & Pomfret, 1977

	Interview Question	Interview Question	Interview Question	Interview Question	Related Literature
Research Question 2					
What is the role of leadership in this change?					
a. What is the leaders role in change in relation to the implementation process	P5: How do you see your role as instructional leader in the change process as it relates to the implementation of an innovation?	P6: How has your work as principal changed from 3 years ago, prior to the implementation of the curriculum management and design tool? (How is the school different now than 3 years ago?)	P7: Describe how the teaching staff has responded to the implementation and use of this tool?		Fixsen et al., 2010; State Implementation, 2011; Michigan Implementation, 2011; Ratner, 2010; Hickman, 2010
b. How has the implementation process influenced principal's practice?	P9: As instructional leader, explain how you use this tool and how this tool has changed your practice?	P10: How do you ensure teachers are using the tool (monitor use)?			Fixsen, et al., 2010; Marzano, 2003;
Research Question 3					
How does the innovation influence instructional and professional practice? (degree of understanding and knowing the practice)					
a. In what ways has professional practice changed as a result of this innovation? (What is different about how teachers work?)	P11: From your perspective how has this tool change teacher practice?	T7: Have there been any opportunities for collaboration in the implementation process? If yes, describe this collaborative environment?	T10: The use of a curriculum management and design tool can influence instructional decisions. How does the use of this tool impact your instructional planning and decision making?	T11: How are curricular decisions different now from the previous system?	Marzano, 2003; Schmoker 2006; Hickman, 2010; Fullan, 2010; Holland, n.d.
b. How has the innovation changed instructional practice?	T8: Explain how you use the curriculum management and design tool; what functions are beneficial or are there any functions that	T12: From your teacher perspective, what is the greatest advantage of using a curriculum management and	T13: What was the most difficult aspect of implementing this tool?		Jacobs, 2010; Marzano, 2003; Ratner 2010

	Interview Question	Interview Question	Interview Question	Interview Question	Related Literature
	you do not use?	design tool?			
Research Question 4					
What can be learned from implementation of the innovation that can inform others in policy and practice?					
a. What can be learned?	P12: Understanding that the implementation process can have intended as well as unintended changes, describe the outcomes of this implementation	P13/T14: Is there any-thing else you would like to share about your implementation process as it relates to the curriculum management tool and design tool?	P13/T14: What advice would you give someone who was considering implementation		Fixsen et al., 2010; State Implementation, 2011; Michigan Implementation, 2011; Ratner, 2010; Hickman, 2010; Fullan 2010

Key: P = Principal, T= Teacher. Numbers correspond to question numbers

APPENDIX K
INFORMATIONAL SURVEY RESPONSES

Question	Response
1. Does your building use the Curriculum Crafter Tool?	124/yes 8/no
2. How long has your building been using the Curriculum Crafter Tool for curriculum management and design?	56/1 year 30/2 year 21/3 years 17/4 years
3. Are all teachers using the Curriculum Crafter Tool?	32/yes 68/no 24/maybe
4. Has your school offered professional development on the use of the Curriculum Crafter Tool?	107/yes 17/no
5. How long ago was the last professional development opportunity that specifically related to the use of the CCT?	69/current school year 26/1 year 7/2 years 7/3 years 2/4 years
6. Please indicate a response that best describes your current status of implementation of the Curriculum Crafter Tool.	28/adopted & implemented 71/early stages 22/fully implemented
7. Would you consider your school a model school in regards to the implementation and use of the Curriculum Crafter Tool?	5/yes 98/no 18/maybe
8. Would you be willing to participate in a study of your schools implementation processes and procedures as it relates to the Curriculum Crafter Tool?	11/yes 75/no 37/maybe
9. If your response to question #8 is yes, please provide the following information. I will contact you by telephone to explain the time frame and the expectations for research participation.	--
10. Are you aware of another school that you would consider a model school in regards to the implementation and use of the Curriculum Crafter Tool? If so, please provide a contact name, school name and address.	Responses varied

APPENDIX L

RESEARCH ASSISTANCE CONFIDENTIALITY AGREEMENT

Central Michigan University Institutional Review Board

Research Assistance Confidentiality Agreement

This form is for individuals who conduct specific research tasks such as: transcribing, interpreting, translating, collecting, entering data, and shredding data.

Project Title:

I, (*Name*) _____
agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the research information in any form of format (e.g., including but not limited to disks, tapes, transcripts) with anyone other than the Researcher(s). This Study has been reviewed and approved by the CMU IRB. For questions regarding participant rights and ethical conduct of research, contact the Director of the IRB.
2. Return all research information in any form or format (e.g., including but not limited to disks, tapes, transcripts) to the Researcher(s) when I have completed the research tasks.
3. After consulting with the Researcher(s), erase or destroy all research information in any form or format regarding this research project that is not returnable to the Researcher(s) (e.g., including but not limited to information stored on computer hard drive).
4. other (specify, or N/A):

(Print Name)
Research Assistant

(Signature)

(Date)

(Print Name)
Researcher

(Signature)

(Date)

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