2015

The Implementation of Curriculum Mapping at a Private High School

Ellen E. Dutton
Walden University

Walden University

COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Ellen Dutton

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Marcia Griffiths-Prince, Committee Chairperson, Education Faculty
Dr. Sharon Holyfield-Cooper, Committee Member, Education Faculty
Dr. Bonita Wilcox, University Reviewer, Education Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University
2015

Abstract

The Implementation of Curriculum Mapping

at a Private High School

by

Ellen E. Dutton

MAT, Concordia University, 2002

BA, Augustana College, 1986

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2014

Abstract

Using curriculum mapping to align the expected curriculum and the actual curriculum has been demonstrated as an effective approach for ensuring educational equity for all students. To improve student achievement, a private high school in the Midwest implemented curriculum mapping to better align curriculum and eliminate gaps and repetition between and within grade levels. The purpose of this qualitative study was to determine fundamental implementation strategies for the mapping process and teachers' and administrators' perceptions of those strategies. The theoretical framework was based on change theory. Data were collected from 10 participants through individual interviews and observations. Teachers and administrators were observed during their curricular mapping meeting time in order to record the strategies used, and each participant was interviewed in order to gather individual perceptions of the strategies used. Data were transcribed and then open coded based on repeating concepts. Thematic analysis indicated that administrators and teachers perceived a need for curriculum mapping training, using standards, collaboration time, and accountability. The outcome of the study was a professional development project for teachers incorporating curriculum mapping at the local site. Implications for positive social change include providing educational leaders with curricular alignment strategies to promote educational equity and the academic success of all students.

The Implementation of Curriculum Mapping at a Private High School

by

Ellen E. Dutton

MAT, Concordia University, 2002

BA, Augustana College, 1986

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2014

Dedication

I dedicate this work to my beloved husband, Scott; our three beautiful children, Michael, Kathleen, and Matthew; my Mom, Patricia, who instilled in me my love for learning; and to all of my family and friends. I was able to start, continue, and complete this doctoral journey because of your continuous encouragement, support, understanding, and prayers throughout this learning experience. I am truly blessed to have all of you in my life.

Acknowledgements

A special thank you to: my committee chair, Dr. Marcia Griffiths-Prince; my second committee member, Dr. Sharon Holyfield-Cooper; my University Research Reviewer, Dr. Bonita Wilcox; Jenny Sherer, from Walden University's Institutional Review Board; and my Form and Style Reviewer, Lydia Lunning. Completion of this project study would not have been possible without all of your feedback, support, and guidance throughout this writing process. A hearty thank you to all of the dedicated educational professionals I have the honor of working with everyday, especially those who agreed to be participants for this study. I would like to extend my sincerest gratitude and appreciation to everyone who helped me and guided my progress towards completion of my doctoral degree, especially my loving family and friends.

Table of Contents

List of Tables

List of Figures

Section 1: The Problem

Introduction

A major challenge for educators today is matching the learning needs of students to an ever-changing world. To put it candidly, one obligatory role for educators is to understand and manage the process of change in order to meet and tackle this challenge head-on. As stated by Ghavifekr, Afshari, Siraj, and Bin Abdul Razak (2013), "Due to the diversity and interactive characteristics of educational change, the critical challenge for successful implementation of the change is "how" to manage the change process in a more effective and strategic way" (p. 333). Educators in the 21st century need to revisit and refine school curriculums, instructional practices, and assessments in order to best meet the changing and developing needs of their students.

The focus of this research study was on exploring the strategies educators used to implement the process of curriculum mapping into the school culture to address the problem of aligning the expected curriculum to the actual curriculum and to common assessments. Curriculum mapping is a means of examining and reviewing existing curricular practices (Jacobs, 2010). Squires (2012) emphasized the necessity of incorporating alignment while designing curriculum to help ensure that what is assessed is actually being taught. Researchers have shown establishing alignment between the taught curriculum and the tested curriculum to be an ideal strategy for establishing educational equity for all students (Brown & Green, 2014; Lam & Tsui, 2013; Squires, 2009). Additionally, Marzano (2003) contended that curricular discrepancies between the actual curriculum and the expected curriculum impeded overall student achievement.

Curricular discrepancies can surface in terms of vertical alignment, horizontal alignment, curricular gaps, and/or curricular redundancies (Cuevas, Matveev & Feit, 2009; Jacobs, 2010; McTighe & Wiggins, 2013).

In Curriculum 21- Essential Education for a Changing World, Jacobs (2010) asked, "Is the curricular practice and organization of your school program designed to address the best interests of your learners, or is it running on habit?" (p. 5). The results of an AdvancED audit, conducted by the North Central Association Commission on Accreditation and School Improvement (NCA CASI; 2002-2013), for re-accreditation of a private high school in a suburb of Chicago revealed that the school was indeed "running on habit" (Jacobs, 2010, p. 5). Basically, the NCA CASI evidence was based on a lack of evidence. That is to say, the AdvancED audit disclosed the absence of a method for the use and alignment of standards to common assessments and the inadequacy of a curriculum evaluation system. The AdvanceEd audit of this private high school revealed the need to implement a process that would allow for aligning the expected curriculum to the actual curriculum and to develop common assessments to ensure educational equity for all students (school principal personal communication, August 12, 2010).

Curriculum mapping is an educational tool and technique that can be implemented for the purpose of curricular alignment. A proponent of mapping, Jacobs (2010) explained how the three components of curriculum (content, skills, and assessment) needed to be coherently aligned. Research has shown that an aligned curriculum improves student achievement (Brown & Green, 2014; Polikoff, 2012, Squires, 2012).

Furthermore, Jacobs (2010) also recognized how advantageous the tool of curriculum mapping is for collecting curricular data to help establish a strategy for curriculum decision making with the goal of improving overall student performance. Aligning the curriculum at this private high school to improve student performance depended on effectively implementing curriculum mapping, which in turn depended on successfully implementing a transformational change in the school culture.

Defining the Local Problem

The local problem that prompted this study was an academic audit at a private high school located in a suburb of Chicago indicating the necessity to implement curriculum mapping within the school culture; doing so would better align the expected curriculum to the actual curriculum and promote the development of common assessments to ensure educational equity for all students. At the time of this research, this private high school had an enrollment of 830 students and 50 full or part-time faculty members.

During the 2009-2010 school year, this private high school underwent an academic audit for renewal of North Central Accreditation. The audit revealed the lack of an approach for aligning the expected curriculum to the actual curriculum and to the assessments (school principal personal communication, August 12, 2010). To address the concerns revealed by the North Central Accreditation audit and acting upon the decision of the school stakeholders, in January 2012 a committee of administrators and faculty at this private high school launched the implementation of curriculum mapping for

improving the alignment of the expected curriculum to the actual curriculum (school principal, personal communication, January 3, 2012).

The problem of not having an approach for aligning the expected curriculum to the actual curriculum needed to be addressed because curricular misalignment can lead to gaps and repetition in both content and skills between and within grade levels. These gaps and repetitions can markedly influence student achievement. Several researchers have posited that in order to promote effective student learning and achievement, the design and integration of education's three primary components (curriculum, instruction, and assessment) must be coordinated, or aligned, together (Ice, Burgess, Beals, & Staley, 2012; Roach, Niebling & Kurz, 2008; Squires, 2009).

The relationship of this problem (lack of an approach for addressing curriculum misalignment) to the larger educational setting revolves around the issue of accountability as set forth by the No Child Left Behind Act (NCLB; 2002) and the Individuals with Disabilities Education Act (IDEA; 2004), which are federal educational reforms aimed at closing performance and achievement gaps. The issue of accountability and the problem of curriculum alignment can be summed up when addressing the central question regarding what students should know, understand, and be able to do (Wiggins & McTighe, 2012). In this regard, Squires (2012) argued the necessity of a mechanism for aligning the written, or expected, curriculum with pedagogy, or the taught curriculum, and the assessment, or tested curriculum for improving student achievement. The successful implementation of curriculum mapping within a school culture can provide such a mechanism (Hale & Dunlap, 2010; Lam & Tsui, 2013; Shilling, 2013).

Curriculum alignment, as explained by Ice et al. (2012), allows for the ability to identify gaps, or areas of deficiency, while also constructing the learning pathways that will ensure that instructional goals and objectives are addressed. Roach et al. (2008) concurred and emphasized the importance of alignment in facilitating and contributing to overall student learning: "Alignment, therefore, represents a promising framework for analyzing the extent to which components of the educational system are coordinated, and its measurement has the potential to provide empirical evidence of the potential of classroom instruction to influence student achievement" (p. 169). The objective of this study was to examine the perceptions of administrators and faculty regarding the strategies they used for implementing the process of curriculum mapping as an integrated part of the school culture in order to address curricular misalignment. By examining the successes achieved along with the challenges faced during the implementation process, the perspectives might be transferrable to other high schools looking to implement curriculum mapping for the purpose of curricular alignment to promote overall achievement of students (Lai, Wood, & Marrone, 2012).

Rationale

The rationale for choosing this problem centered on meeting the guidelines for North Central Accreditation as put forth by the 2010 academic audit mandating a process for addressing curriculum alignment. The alignment of curriculum is centered on the overall goal of improving teaching and learning for all students and the relationship that exists between improved teaching practices and resulting success for all learners (Esteves, Fonseca, Morgado, & Martins, 2011; King & Watson, 2010; Squires, 2009).

An academic audit to renew the North Central Accreditation for the high school identified a problem concerning the alignment of curriculum at this school due to a lack of evidence for curriculum evaluation. The academic audit revealed the presence of two curricula (school principal, personal communication, August 12, 2010). There was the formal or theoretical curriculum, which was based on the standards established by the State of Illinois, ACT, and The College Board, and the actual curriculum. What was happening in the classrooms on a day-to-day basis and how much of a connection or an alignment there was between the two curricula could not be determined.

In other words, the North Central audit revealed the need for implementing a process for aligning the expected curriculum to the actual curriculum and to the assessments (school principal, personal communication, August 12, 2010). The academic audit demonstrated a need to study and address this problem in order to ensure the presence of a guaranteed and viable curriculum (Marzano, 2003) that would meet the needs of all students. Marzano (2003) recognized how discrepancies between the intended curriculum and the actual implemented curriculum impact learning. These discrepancies result in a decrease in the attained, or learned, curriculum and lower overall levels of achievement (Polikoff, 2012). Furthermore, as stated by Blumberg (2009), "Consistency among the objectives, learning activities, and assessment exercises results in aligned courses, which give students direction and clarity and yield increased learning" (p. 93). Aligned instruction provides the pathway to improved student achievement (Polikoff, 2012).

Definitions of Terms Associated with the Problem

Actual curriculum: As revealed by a curriculum map, this refers to what is or what has really taken place in the classroom. The actual curriculum is often addressed in the form of a diary map, allowing for data to be entered on an ongoing basis. (Cuevas et al., 2009; Jacobs & Johnson, 2009).

AdvancED accreditation: according to the NCA CASI (2002-2013), in order to earn accreditation schools must adhere to the standards put forth by AdvancED that describe quality educational practices. The accreditation process assists schools with the goal of improving student performance and ensuring educational equity.

Central phenomenon: Defined by Creswell (2012) as "the key concept, idea, or process studied in qualitative research" (p. 16).

Curricular alignment: The consistent coherence or coordination between benchmarks or standards, content and skills, learning activities and resources, and the assessments or demonstrations that provide evidence of learning (Cuevas et al., 2009; Ice et al., 2012; Jacobs & Johnson, 2009; Squires, 2012).

Curricular gaps: Content and/or skills that are missing from the actual curriculum that can impact students' learning (Jacobs, 1997; McTighe & Wiggins, 2013).

Curricular redundancies: Essentially repetitions of content and/or skills within students' learning experiences, which can lead to boredom and tediousness and a decrease in a student's overall performance (Jacobs, 1997; McTighe & Wiggins, 2013).

Curriculum mapping: Defined by Jacobs (1997) as "a procedure for collecting data about the actual curriculum in a school district using the school calendar as an

organizer" (p. 61). Furthermore, curriculum mapping is a process and a tool that can "improve student performance by sharpening the alignment of all aspects of the curriculum to reduce repetitions, and gaps, and strengthen the articulation of skills" (Jacobs, 1997, p. 114).

Educational equity: Reaching and teaching all students, ensuring that each student has the opportunity for success (King & Watson, 2010).

Expected curriculum: Summarized by Kelting-Gibson (2013) as the aggregate of the knowledge and skills that incorporate the standards for teaching and learning.

Horizontal alignment: The curricular alignment taking place within a specific grade level to indicate overall student learning for any one academic year thereby eliminating curricular gaps (Jacobs & Johnson, 2009; McTighe & Wiggins, 2013).

Moral purpose: As stated by Fullan (2001), this refers to "acting with the intention of making a positive difference in the lives of employees, customers, and society as a whole" (p. 3).

School culture: The persona of a particular school that develops over time from "the norms, values, beliefs, rituals, symbols, ceremony and collective stories" (Meier, 2012, p. 806) that can all contribute to the culture of the school.

Vertical alignment: The curricular alignment taking place between grade levels and disciplines to indicate student learning from year to year, allowing for a scaffolding of skills (Jacobs & Johnson, 2009; McTighe & Wiggins, 2013).

Significance

As stated earlier, the relationship of the issue of curriculum alignment to a larger education setting was established primarily by two policies: NCLB (2002; Dee & Jacob, 2011; Polikoff, 2012) and IDEA (2004). Roach et al. (2008), declared that "alignment … is an area of research and applied practice that has the potential to have a positive impact on all students' learning and achievement" (pp.158-159). Therefore, secondary educators asking if they are doing what they say they are doing could address the local problem of the lack of curricular alignment, which prompted this research study.

In other words, is the curriculum delivered in the classroom congruent with the intended curriculum, and is this intended curriculum demonstrated by the achieved curriculum? The follow-up to this question then becomes, how does one know? That is, how can secondary educators ascertain and actuate the alignment of curriculum in their schools? Answers for these rhetorical questions concerning curricular alignment are obtainable through the implemented usage of the process of curriculum mapping and these answers would then provide guidelines for the school for addressing issues of accountability as related to student achievement.

Guiding/Research Question

Addressing the local problem of the lack of curricular alignment at this private high school by implementing the process of curriculum mapping was guided by the following three research questions:

Research Question 1: What steps or strategies were involved in the implementation of the process of curriculum mapping to improve curriculum alignment?

Research Question 2: What are the administrators' and teachers' perspectives about the steps or strategies that were used for implementing the process of curriculum mapping?

Research Question 3: How did administrators and teachers approach curriculum planning for mapping at this private high school?

The literature pertaining to curriculum mapping was abundant with information concerning what curriculum mapping is (Cuevas et al., 2009; Jacobs, 1997; Veltri, Webb, Matveev, & Zapatero, 2011), various methods for mapping (Bester & Scholtz, 2012; Jacobs & Johnson, 2009), and the impact of curriculum mapping on student achievement (Ice et al., 2012; Lam & Tsui, 2012; Squires, 2012). Yet, there was a gap in the literature in terms of how to implement the process of curriculum mapping in order for the process and tool of mapping to become an integrated part of the school culture.

To guide research for addressing this gap in the literature, Merriam (2009) recommended formulating a research question in terms of asking, "What do I want to know in this study?" (p. 58). Based on Yin's (2011) case study research method, I examined the perceptions of administrators and faculty regarding the process of implementing curriculum mapping in order to better understand how to incorporate an effective transformational change as an integrated part of the school culture. From this research study, I wanted to be able to identify and recommend possible strategies for successfully implementing the utilization of curriculum mapping within a school culture.

Review of the Literature

The Theoretical Framework of the Process of Change

The success of aligning the curriculum depends on the success of the implementation process for utilizing curriculum mapping, which in turn depends on the success of the process of change within the school culture. Sanetti, Kratochwill, and Long (2013) explained how "implementation requires [a] behavior change and thus can be conceptualized as an adult behavior change process" (p. 43). Meier (2012) recognized how changing the prevailing culture of a school is perhaps one of the most important and, at the same time, one of the most difficult responsibilities for an educational leader.

This difficulty lies in the fact that when it comes to the process of implementing change within the school culture, educators may respond differently and conjure contrasting terms when asked to describe their reaction to the implementation of change (Fullan, 2001; Meier, 2012). As explained by Thompson (2010), this might be because of the differing reactions to the implemented change. For example, there might be positive reactions of excitement, receptivity, and energizing. Alternatively, the reaction might be negative, as in cynicism, resistance, or anxiety (Fullan, 2001; McKay, Kuntz, & Naswall, 2013; Mitchell, 2013).

In their research study, McKay et al. (2013) investigated the role of readiness in the process of implementing change and how this readiness might affect individuals' attitudes or perceptions of the change. Additionally, McKay et al. (2013) pointed out how educators will commonly even display ambivalent attitudes towards the change process

itself and how these attitudes may even vary themselves during different stages of implementation of the change.

Change Theory

Change is about rethinking how learning goals, various instructional programs, and services align together to keep pace with educational needs and promote student achievement. The problem is that people generally are in favor of progress, but they often loathe the necessary change to bring about that progress (Mitchell, 2013; Thompson, 2010). This is because, as explained by Meier (2012), the culture of a school directly dictates the way things are done within a school. Often, during the process of implementing change within an educational institution, a myriad of attitudes and reactions will surface. Therefore, the conceptual framework of this case study was based on change theories' descriptions of problem-solving approaches to implementing a planned change into a school culture by focusing on the work of several researchers who have studied the complexities of the change process.

Informing the framework of change theory for this case study were the core premises of implementing a planned change as described by change theory researchers Fullan (1982, 1993a, 1993b, 2001, 2006, 2007), Kotter (2012), Lewin (1951), Norman (2010), and Rodgers (1995, 2003). The core premises of these researchers are presented chronologically.

The Need for Change

Lewin (1951), who was amongst one of the first researchers to present a model for implementing change, identified three stages necessary to progress through before the

change could become an integrated part of the organizational system seeking the change. Lewin (1951) referred to the first stage of the change process as *unfreezing*, that is, when an organization recognizes that change is needed.

For example, recognition of change became evident for the all-boys private high school that was the setting of this study when the AdvanceEd audit revealed the need for implementing a process for aligning the expected curriculum to the actual curriculum and for developing common assessments to help ensure educational equity for all students. Carter (2008) advised that this unfreezing stage is the stage in which to create a sense of urgency. In other words, relating to all stakeholders that simply maintaining the status quo or "running on habit" (Jacobs, 2010, p. 5) is no longer sufficient or acceptable.

The second stage Lewin (1951) referred to as *moving*. This stage of change is in reference to when the change is actually initiated. Schein (1996) addressed this stage as being a "profound psychological dynamic process [involving] painful unlearning… as one cognitively attempted to restructure one's thoughts, perceptions, feelings, and attitudes" (p. 28). If the implementation process has been successful, then this is the phase where the transformational change would occur (Carter, 2008). Killion and Roy (2009) explained a transformational change as being an implementation that alters the school culture by changing the way people within the school community think, act, interact with one another, and view their work.

Lastly, the third stage in Lewin's (1951) change process, which addressed the establishment of equilibrium in the organization, was referred to as *re-freezing*. According to Carter (2008), this phase institutionalizes the cultural change(s) so they

become an integrated part of the school culture. With three stages in the theory of change, Lewin (1951) recognized behavior as being dependent only on the present and as being a function of the people in their environment.

The Moral Purpose of Change

In 1859, Charles Dickens, in *A Tale of Two Cities*, wrote, "It was the best of times, it was the worst of times" (p. 1). Similarly, change in a school's culture tends to bring out the best in some people and the worst in others in terms of resistance to change due to the anxiety and fear that the change may summon. Fullan (as cited in Kallick & Colosimo, 2009) offered an analogy: "Change can be likened to a planned journey into uncharted waters in a leaky boat with a mutinous crew. It is important to minimize the number of individuals who feel the need to be mutinous" in the first place (p. 60). In order to avoid such a volatile reaction towards change, Fullan (1993a; 1993b) emphasized the essential partnership of moral purpose with the agentry of change. A major goal for any educator is to make a difference in the lives of our students, for this reason, Fullan's emphasis of moral purpose is both as an end and as a means to that end.

For the concept regarding the agentry of educational change, Fullan (1993a) recommended a radical and significant shift of mindset. In order to successfully implement change, it is necessary to grapple with not only the "how" of the change, but also the "what" of the change (Fullan, 1982). According to Fullan (1982), "one of the most fundamental problems in education today is that people do not have a clear, coherent sense of meaning about what educational change is for, what it is, and how it proceeds" (p. 4). Therefore, for Fullan (1982), in order for an attempt to implement a

cultural change to be successful, the educational organization must find meaning concerning what should change as well as how to go about implementing that change.

Furthermore, according to Fullan (1993b, 2007), at its core, teaching is a moral profession because the success of a planned change is dependent upon moral purpose guiding a successful transition into the school culture and the understanding that change should be viewed not as an event, but as a process. To this end, the successful process of implementing a cultural change needs to involve a change in practice (Fullan, 1982).

Fullan, Hill, and Crevola (2006) offered three critical lessons for implementing change that will transform educational practice. First, implementing change in an environment of reduced resistance involves knowing what already exists within the educational organization that can be revised, along with recombining or redeploying existing elements within the confines of curriculum, instruction, and assessment into new configurations.

The second critical lesson suggested by Fullan et al. (2006), in order to implement a cultural change for teaching and learning to transform educational practice, is that standards must be communicated and available for both teachers and students. In a sense, standards can be viewed as the "reverse-driver" for achieving coherence because the focus is on the outcomes in terms of what students need to know and be able to do (Fullan, 2001).

A further example of Fullan's second critical lesson on implementing change for transforming educational practice was demonstrated by the seminal work of McTighe and Wiggins (2013) on the use of essential questions in building a curricular framework.

Essential questions should not only stimulate students' critical thinking and processes of inquiry, but they should also deepen student's understanding of important ideas in order for students to be able to transfer and apply their learning. For this reason, according to Fullan et al. (2006) and McTighe and Wiggins (2013), communication of standards and of essential questions is important to the implementation of curriculum mapping for purposes of alignment.

The third target, according to Fullan et al. (2006) should be centered on improving classroom instruction by fashioning it into a more precise and validated data-driven activity that is capable of responding to the learning needs of individual students. Love (2009) also emphasized the systematic use of data for improving instructional practices along with a collaborative school culture sharing a moral purpose of commitment towards teaching and learning for all students.

The Diffusion of Change

Rodgers (1995), too, recognized the difficulty of change in referring to a quote from Machiavelli's *The Prince*: "There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things" (p. 1). In other words, getting an innovative idea or strategy implemented, even when the advantages of such an implementation are obvious, is often quite difficult. This is mainly because such innovations often require a lengthy time period to become readily adopted within the school culture (Rodgers, 1995).

According to Rodgers (1995, 2003), any type of cultural change within an educational organization involves diffusion, which is referred to as the process by which

an innovation, such as curriculum mapping, is communicated to the members of the educational organization. Rodgers (1995) equates this diffusion as being a special type of communication, in which the message is solely about the innovation. This newness of the innovation within the content of the message means involving somewhat of a degree of uncertainty, which may lead to uneasiness. This uncertainty, according to Rodgers (1995), represents a lack of either information, or structure, or predictability. In order to reduce the uncertainty, information must be communicated, structure must be provided, and predictability must be made relevant.

Rodgers (1995, 2003), stipulated that implementation of a cultural change occurs in an educational organization when individuals within that organization put the innovation that was implemented into regular use. This can only take place when there have been opportunities for doing so. To emphasize this point, Rodgers offered a quote from Sophocles from 400 B.C. that still holds applicable today, "One must learn by doing the thing, for though you think you know it, you have no certainty until you try" (1995, p. 161). As the new way of doing things is put into practice, an overt behavioral change takes place within the organization, for Rodgers (2003), this is the actual stage of implementation of the intended change.

Carter (2008) put forth a similar stipulation in explaining how the strategy, that will be used to address the organizational cultural change (in this case, curriculum mapping) must be put into practice by providing for participants opportunities to acquire the necessary skills and knowledge for successfully carrying out the strategy. Moreover, if participants are not receptive to the proposed change or are not allowed opportunities to

put the innovation that was implemented into regular practice, the desired cultural change may never come into fruition (Schifalacqua, Costello, & Denman, 2009).

The Human Element of Change

The theory of change for Lewin (1951), Fullan (1982, 1993a, 1993b, 2001, 2006, 2007) and Rodgers (1995, 2003), centered on the human element that impacts the implementation of change. Norman (2010), agreed with this aspect by recognizing that any educational change needs to involve changing the school culture or school climate by providing educators with training and professional development opportunities.

Additionally, Norman (2010), as did Fullan (2006, 2007), acknowledged and emphasized curriculum as the area of priority for addressing a shifting of mindset. However, as explained by Norman (2010), although the implementation of change to a school culture involves altering the culture, the instructional practices, and/or the curriculum, these alterations must always be done from a human perspective.

Norman (2010) offers as an example how teachers often feel already overwhelmed with their workload and so a very compelling reason for the change must be provided. Suggestions provided by Norman (2010), for meliorating teacher's concerns are: providing for professional development and collaborative opportunities for learning about research-based strategies, providing a risk free environment for sharing feedback, and building teacher's self-efficacy by allowing them time to work through the change experience. As explained by Norman (2010), "in order to change the culture… members of the school should be assisted in exploring their feelings, dealing with their uncertainties, and understanding their beliefs and attitudes" (pp. 2-3). The change in

behavior will occur before the change in beliefs and the motivational aspect for changing behavior is in the promotion of positive experiences practicing and using the strategy implemented for promoting the cultural change (Fullan, 2006).

Additional essential components for successfully implementing a cultural change in an educational setting, as stipulated by Norman (2010), include collegial activities, open and honest communication, and improving teachers' confidence in their ability to affect student achievement. In other words, the process of implementing change in a school culture must be approached from the perspective of the teachers, because what they think and what they do in the classroom is fundamental to the success of the change.

Changing Behavior

This idea was echoed by the research of Kotter (2012) and Kotter and Cohen (2002). The overall success for implementing change within the culture of a school is challenged by the behavior of the people impacted by that change, most notably the administrators and the teachers. Kotter (2012) and Kotter and Cohen (2002) recognized the single greatest challenge to the process of implementing change is in changing people's behavior. To sufficiently address this challenge, Kotter (2012) and Kotter and Cohen (2002) presented eight steps for successful implementation of change within an educational organization.

Increased urgency. The first step is to increase urgency, as stated by Kotter and Cohen (2002), "without enough urgency, large-scale change can become an exercise in pushing a gigantic boulder up a very tall mountain" (p. 15). The participants involved with the cultural change must recognize the need for the change. Kotter (2012), claimed

that without a sense of urgency "people won't give that extra effort that is often essential" (p. 5) for overcoming a complacent response to the organizational change effort. Complacency to change can disrupt the implementation process and thwart all planning efforts for implanting the cultural change.

Gesme and Wiseman (2010) recognized complacency as a real obstacle to change. There must exist within the organization a desire to embrace the cultural change rather than being satisfied with the status quo. Compelling evidence of the need for change must be presented to demonstrate the urgency of the required change (Kotter & Cohen, 2002). As posited by Kotter and Cohen (2002), "People change what they do less because they are given analysis that shifts their thinking than because they are shown a truth that influences their feelings" (p. 1). This statement captures the essence of the moral purpose of change proposed by Fullan (1982, 1993a, 1993b, 2001, 2006).

The leadership team. A sense of urgency is followed by the second step, which is to build a sufficiently powerful guiding coalition or leadership team (Kotter, 2012). As explained by Kotter and Cohen (2002), a common hindrance for implementing change within an educational organization is experienced when those who should be leading the impetus for change are not maintaining their responsibilities and no one within the organizational setting steps forward to confront this situation.

A vision for change. Step three for successfully implementing change within an educational organization, is to create a vision that provides direction for the change effort and then develop necessary strategies for achieving that vision (Kotter, 2012). As stated by Kotter (2012), "Vision plays a key role in producing useful change by helping to

direct, align, and aspire actions on the part of large numbers of people" (p. 8). Projecting a vision of the objectives of the implemented cultural change provides a direction and a goal for all stakeholders. Added Kotter and Cohen (2002), "How can you begin without knowing where you are going?" (p. 23). Gesme and Wiseman (2010) echoed the importance of an established direction for the process of implementing a cultural change in an educational institution and recognized how a vision statement must be communicated to all stakeholders within the school.

Communicating in words and in deeds. Step four involves communicating the vision established within step three; such communication needs to be accomplished in both words and in deeds. As explained by Kotter (2012), "nothing undermines change more than behavior by important individuals that is inconsistent with the verbal communication" (p. 10). In other words, the desired behavioral change needs to be communicated by the leadership team both verbally and in their actions.

One of the keys to transformational change within an educational organization, according to Gesme and Wiseman (2010), is to "have leadership that is able to understand it, support it, explain it, and move the organization to commit to it. That is 95% of the success of any change" (p. 257). Effective leadership is an integral part of implementing successful change within a school culture. This leadership needs to involve the followers just as much as the leaders. Therefore, an effective and functional structure of leadership is an essential component for change to be implemented and integrated within a school culture (Gesme & Wiseman, 2010).

Rewarding efforts. Organizational commitment is applicable to step five, which emphasizes commissioning action from a large number of people, with the goal of getting as many people as possible acting in such a way as to make the vision, established in step three, a reality (Kotter, 2012; Kotter & Cohen, 2002). However, achieving the reality of that vision and implementing successful transformational change within an organization takes time, therefore, step six of Kotter's (2012) phases of change addressed creating short-term wins. Whenever possible, educators need to be rewarded for their efforts. Kotter recommended that evidence of the implemented change producing desired results be presented within a year or two of the start of the implementation process.

Warning of regression. Step seven of Kotter's (2012) phases of change warns of overconfidence and of declaring success to soon. This is reminiscent of President George W. Bush's premature declaration of "Mission Accomplished" in reference to the military actions in Iraq in May, 2003 (Cline, 2013). For Kotter (2012), "until changes sink down deeply into the culture, new approaches are fragile and subject to regression" (p. 13). Consideration needs to be given as to how the transformation change and the new way of working on curriculum can be kept in focus after the initial implementation, in order to ensure lasting success. This includes identifying strategies and mechanism that can be used for sharing evidence of successful implementation of the transformational change within the organization (Hewitt-Taylor, 2013).

Ensuring lasting success. The final step recognized by Kotter for implementing a transformational change is the requirement of making the change stick. That is, step eight, as emphasized by Kotter (2012) is the anchoring of change firmly within the school

culture by the change becoming "the way we do things around here" (p. 14). This involves using data to articulate and demonstrate the connection between the changed behavior and the organizational successes (Kotter, 2012). In other words, a successful transformational change of school culture takes place only after people's actions have been successfully changed, after the implemented process produces a change in behavior for a period of extended time, and after administrators and teachers see the connections between the new action and the improvement of student performance (Kotter, 2012).

Core Premises of Change

Recognizing the problems and core premises of implementing a cultural change for what they are should help educators bring about a more effective implementation process (Fullan, 1982). Among these core premises are the recognition or awareness of the need for a planned change, initiating or implementing the planned change, and an ongoing evaluation of the planned change. The odds against successful implementation of a cultural change are not small. Therefore, through the increased understanding of implementation strategies using various aspects of change theory from Fullan (1982, 1993a, 1993b, 2001, 2006, 2007), Kotter (2012), Lewin (1951), Rodgers (1995, 2003), and Norman (2010), those odds might be decreased.

In acknowledging the strategies that will permit the transformational change to overcome the odds against the successful implementation of that cultural change, an educational organization will be better equipped to maintain their vision and to recognize that the impetus for any kind of a change within the school should ultimately be to improve student learning (Buchanan, 2009). Implementation of change within a school

culture for improving student learning can be a very stressful undertaking, which can negatively influence a teacher's sense of wellbeing or efficacy. Such an affect will minimize the chances of successfully or effectively implementing the denoted (Ghavifekr et al., 2013; Jackson & Lunenburg, 2010; Sanetti et al, 2013).

In summary, implementing and planning for successful transformational change within an educational setting must incorporate people along with procedures and must account for the transitional aspect of altering an educator's practice in terms of what people experience and perceive as important to the implementation process. Planning for successful transformational change needs to move beyond determining the ideal way of implementing the innovative change, to identifying the strategies that will allow it to become an embedded and sustained part of the school culture (Hewitt-Taylor, 2013).

Critical Review of the Problem

As discussed in the conceptual framework for this proposed study, researchers have demonstrated that if an implemented change to an educational organization is to be successful, significant change needs to take place within the culture of the school. This includes modification in pedagogical ideologies, values, and traditions (Norman, 2010; Roby, 2011). The culture of a school, as discussed by Norman (2010), defines "what is of worth for teachers, specifies acceptable limits of behavior and beliefs, and acts as a powerful factor in promoting or resisting" (p. 2) the efforts for implementing a change within the school culture.

No Child Left Behind

A major impact to the cultures of numerous schools across the United States took place in January 2001, when President George W. Bush signed into law NCLB. One requirement of this act was for states to create and adopt curricular standards for students at each grade level of schooling, kindergarten through grade 12 (Polikoff, 2012). A further requirement of NCLB was for each state to annually assess the academic progress of all students in all school districts within the state (Penuel, Fishman, Gallagher, Korbak, & Lopez-Prado, 2009; Polikoff, 2012).

The 2001 NCLB Act, which is essentially a reauthorization of the Elementary and Secondary Education Act of 1965, fundamentally changed and challenged educational expectations by declaring the requirement of schools to address closing "the achievement gap with accountability, flexibility, and choice, so that no child is left behind" (NCLB, 2002). Within the stated purpose of the NCLB Act is the challenge of "ensuring that high-quality academic assessments … curriculum, and instructional materials are aligned with challenging State academic standards so that students, teachers, parents, and administrators can measure progress against common expectations for student academic achievement" (NCLB, 202). After a qualitative analysis of surveys, field notes, and classroom observations, Doolittle, Sudeck, and Rattigan (2008) recognized how schools are often confronted with various difficulties when trying to adhere to the multiple priorities generated by the passage of NCLB. One such priority is curriculum alignment (Blumberg, 2009; Bester & Scholtz, 2012; Harvey & Baumann, 2012; Polikoff, 2012; McTighe & Wiggins, 2013).

Curriculum Alignment and Academic Audits

As stated by Blumberg (2009), "aligned courses lead to maximum student learning, and there is a greater chance that the students will achieve the goals and objectives for the course" (p. 96). For Blumberg, alignment of curriculum provides students with direction and clarity, which then results in increased student learning. Harvey and Bauman (2012) also advocated for curricular alignment for promoting student learning, declaring that a curriculum that is intentionally designed to be aligned, both vertically and horizontally, encourages student engagement and a deeper, approach to learning. In their qualitative study of student reflections, Harvey and Baumann (2012), explained how "curriculum alignment refers to an overt alignment between the course content, learning activities, teaching strategies and assessment of a subject which are in place to achieve the intended learning outcomes" (p. 9). Furthermore, Harvey and Bauman (2012), also stipulated how curricular alignment can be evaluated through a variety of tools and strategies, such as reflective practice and academic audits.

Academic audits are one of the strategies used for the quality assurance method of accreditation, which is a means of recognizing schools of distinction (NCA CASI, 2002-2013). Cram (2011) explained accreditation as being a method for school improvement and accountability because the accreditation process, including the academic audit, serves to provide guidance for a school in terms of clarifying their mission and the purpose or values that the school exemplifies.

According to Cram (2011), any school regardless of whether it is private or public, coed or single gender, can use the process of accreditation to "identify those

things they are doing well, those things that need to be changed, in order to improve student performance, and those things that may need to be abandoned if real progress is going to be made" (p. 11). To put it succinctly, Cram (2011) declared that accreditation "is what every school should be doing to help ensure that every child gets the quality education they deserve" (p. 11). If no child is to be left behind in terms of having access to a quality education, then it logically follows that schools need to continuously review, reflect, and strive for improvement of teaching and learning (Cram, 2011).

An academic audit, using both quantitative and qualitative data collection methods, can provide a magnifying lens upon which educators can view and assess the level of teaching and learning taking place in their school (Knowles, 2010). Such was the case when an AdvancED audit conducted for the renewal of accreditation for a private high school revealed the need for implementing a process for aligning the expected curriculum to the actual curriculum and to the provided assessments, in order to best appropriately meet the needs of all of the students.

Curriculum Mapping

Several researchers, such as, Cuevas et al (2009); Jacobs (1997, 2004); Uchiyama and Radin (2009); Liu, Wrobbel, and Blankson (2010); and Veltri et al. (2011) have affirmed curriculum mapping to be a tool and a process that can be incorporated within a school or a district to assist in aligning education's three primary components for effective student learning: the intended (curriculum) to the delivered (instruction) and the achieved (assessment).

Jacobs (2010), who has been the main proponent and essentially a guru for curriculum mapping, described "mapping" as a verb, that is, as an "action to be carried out by faculties as they breathe life into the curriculum" (p. 20). Additionally, Veltri et al. (2011), viewed curriculum mapping as a tool for the continuous monitoring and improving of teaching and learning in an educational system.

According to Veltri et al. (2011), "The essential purpose of curriculum mapping… is to determine the degree of consistency between what [the] faculty expect students to learn, what learning experiences faculty design, what faculty tell students about expected learning, what faculty think they teach, and what faculty assess" (p. 32). This degree of consistency provides the extent of curricular alignment that provides a system upon which students can be guided towards what they are expected to know and be able to do (Liu et al, 2010). Curriculum mapping allows for an open, objective discussion about the overall education program offered to students.

Consequently, the corollary behind the implementation of curriculum mapping is to assist in ensuring that what content and skills are intended or required are aligned with what is actually taught or enacted in the classroom, and furthermore aligned with the assessed learning experiences in order to enhance the success of all students (Bester & Scholtz, 2012; Cuevas et al., 2009; Harvey & Baumann, 2012; Ice et al., 2012; Kallick & Colosimo, 2009; Polikoff, 2012; Roach et al., 2008;). A qualitative research study conducted by Harvey and Baumann (2012), revealed the need for a school's curriculum to clearly articulate the intent, purpose, meaning and expectations for all learning experiences. According to Bester and Scholtz (2012), and also echoed by Kallick and

Colosimo (2009), curriculum mapping as both a tool and a process provides a means of articulating and analyzing the curriculum as data, because it provides an effective method for examining the taught or created curriculum, rather than simply the intended or planned curriculum.

Cuevas et al. (2009) also described curriculum mapping as an analytical tool that allows teachers to "identify important components of program curricula, place them in relation to each other in a visual format, and capture an overarching curricular structure to support cognitive scaffolding for further analysis" (p. 24). In this manner, curriculum coherence is conceptualized in terms of the intended, the designed, the enacted, and the assessed (Cuevas et al., 2009) as put forth by the qualitative research conducted by Harvey and Baumann (2012). It is in this context that the implementation of the process of curriculum mapping within the school culture can assist in the alignment of the actual curriculum with the expected curriculum to help ensure the presence of a guaranteed and viable curriculum (Marzano, 2003) that is meeting the needs of all of students.

Defining *Curriculum*

In a discussion of curriculum alignment, it seems pertinent to include a definition of the term "curriculum". However, a perusal of the literature indicated a myriad of ways to define curriculum or, as stated by Dillon (2009), "Taken as an ensemble the definitions and conceptions of curriculum are known [shown] to be incoherent, and by individual contrast to be divergent when not contradictory" (p. 344). For example, Lai et al (2012), considered a curriculum to be "a combination of various relationships including educational strategies, course materials, learning outcomes, assessment tasks… [the]

educational environment and students' learning styles" (p. 28). While Marzano (2003), referred to curriculum as being the "decisions regarding sequencing, pacing, and experiences that are the purview of the classroom teacher" (p. 106). As demonstrated by these two examples, the term "curriculum" is used in such a broad, all-encompassing manner, that it is difficult to converge on an agreeable meaning (Marzano, 2003).

So, rather than trying to define the term "curriculum", agreement can instead be reached when consideration is given to those aspects that compose the curriculum. In other words, according to Dillon (2009), "What are the basic things that must be involved in curriculum, and what are the basic questions about those things?" (p. 345). Dillon (2009) recognized eight aspects to consider when addressing the composition of curriculum, these aspects are: the "who, whom, what, where and when, why, how, what results" (p. 347). These eight aspects should be taken into consideration when considering avenues of curricular alignment and when constructing a curriculum map.

Teachers' Approaches to Curriculum

Teachers are one of the main aspects or components of curriculum planning and too often planning decisions are made in isolation (Jacobs & Johnson, 2009). As explained by Marzano (2003), teachers will commonly make independent and personal decisions regarding what content and/or skills will be discussed and explained in a particular academic discipline, including as well, to what extent and what length of time will be spent on particular topics. To that end, critical to the curriculum mapping process is the teachers' understanding and approach to the previously mentioned eight basic aspects of curriculum (Shawer, Gilmore, & Banks-Joseph, 2008; Killion & Roy, 2009;

Bester & Scholtz, 2012). Shawer et al. (2008) studied the impact of teachers' approaches to curriculum and students' learning and identified three orientations or approaches to curriculum: transmitter, adapter, or enactor.

The transmitter approach to curriculum planning. In a qualitative study examining the impact of teachers' approaches to curriculum, Shawer et al. (2008), explained the transmitter approach to curriculum planning as being entirely based on the textbook. A teacher who approaches curriculum in this manner is primarily concerned with simply covering the subject material. As explained by Bester and Scholtz (2012), since the focus of instruction is on the relaying of information, it is debatable whether active learning is actually taking place with this approach to the curriculum.

The adapter approach to curriculum planning. According to Shawer et al. (2008), the teacher who approaches curriculum as an adapter is still focused on the "official" curriculum provided by the textbook publishers, but is actively involved in adapting "existing materials and topics, add new topics, leave out irrelevant elements of the curriculum and respond to student diversity and experiment with various teaching methods…" (p. 286). The adapter approach also leaves very little chance for collaboration with colleagues who teach the same grade level or academic discipline.

The enactor approach to curriculum planning. The enactor approach to curriculum planning involves interactions between teachers and their students, thus transforming the institutional curriculum into the pedagogical curriculum. Approaching curriculum planning as an enactor allows the intended curriculum to become experienced, thereby allowing active learning to take place (Shawer et al., 2008; Rafferty, 2011; Bester

& Scholtz, 2012). The enactor approach to curriculum planning promotes collaboration and collegiality within the culture of the school.

Constructing a School-wide Curriculum

Jacobs (2010) offered the metaphor of constructing a curriculum as being similar to the construction of a building and described the establishment of a school-wide curriculum as being a design problem. All of the floors of the building need to be connected, just as a school curriculum needs to align both horizontally and vertically. The construction of a building needs a set of blueprints that can be viewed and understood by all stakeholders, similar to how a school's curriculum needs a map to guide a student's educational journey.

When the eight aspects comprising curriculum construction are addressed, that is, the "who, whom, what, where and when, why, how, what results" (Dillon, 2009, p. 347), and an approach to curriculum planning is agreed upon (Bester & Scholtz, 2012), curriculum mapping then becomes a process and a tool for conducting a curriculum review, for updating the curriculum, and for aligning the curriculum (Jacobs, 2010). As stipulated by Love (2009), "there is no way to bridge the gap between data and results without changing what is taught, how it is taught, and how it is assessed" (p. 20). The essential purpose of implementing curriculum mapping is to project and determine the degree of alignment and consistency between what outcomes teachers expect their students to learn, what learning experiences are designed around those expected outcomes, and what teachers assess based on what they think they taught (Veltri et al., 2011).

Overall, the process of curriculum mapping addresses teacher accountability for student achievement (Roach et al., 2008; Jackson & Lunenburg, 2010; King & Watson, 2010; Dee & Jacob, 2011) while also serving as an assessment tool for articulating and aligning the curriculum of a school or a district (Blumberg, 2009; Jackson & Lunenburg, 2010; Liu et al., 2010; Bester & Scholtz, 2012; Ice et al., 2012). For example, Jackson and Lunenberg (2010) took a quantitative approach to study curriculum alignment and school accountability as they relate to student achievement, as was mandated by NCLB (2002). The results of this study indicated that teachers and their choice of instructional methods influenced student achievement (Jackson & Lunenberg, 2010).

Uchiyama and Radin (2009) demonstrated in their qualitative study that an additional outcome from incorporating curriculum mapping as a process and a tool is the establishment of a curriculum that is fluid, rather than static and a curriculum that is adaptable to the needs of all students, school policies, and new educational research findings. Costa and Kallick (2010), and Bols and Freeman (2011), also echoed the importance of establishing a fluid curriculum that allows students to practice skills such as problem-solving, critical thinking, creativity, curiosity, collaboration and leadership.

In addition to enhancing student success, through the methodology of using three separate case studies, Kallick and Colosimo (2009), recognized the additional impact on educational organizations of implementing curriculum mapping as generating an increase in collaboration and collegiality resulting in enhanced productivity of professional learning communities. Increased collaboration and collegiality would diminish the

individual curricular decisions teachers frequently make regarding what is taught and when it is taught (Kallick & Colosimo, 2009).

Types of Curriculum Maps

Jacobs (1997, 2004) and Jacobs and Johnson (2009) recommended that a curriculum be mapped-out according to the established school calendar for the respective academic year. The curriculum that is mapped must be reflective of what was happening in the classrooms on a day-to-day basis, that is, the curriculum that was actually taught. These types of maps are referred to as "diary maps" (Jacobs, 1997, 2004). This type of mapping would help to ensure that whatever curricular revisions needed to take place to resolve gaps and/or redundancies would be determined based on the collection of authentic classroom data.

In addition to diary maps, Jacobs (1997, 2004) also recommended consensus maps, which would depict the same standards and essential questions (McTighe & Wiggins, 2013). Essential questions located within consensus maps should recur, be revisited, and should be purposeful and requiring of inquiry and reason (McTighe & Wiggins, 2013). Curriculum mapping by educators is used in much the same way that navigators use maps to chart their course of exploration. As explained by Jacobs (1997), "Although unforeseen events and variables may affect their [the navigators'] journey, they begin by making important choices about their route to avoid a meandering, rudderless voyage" (p. 25). Jacobs (1997) goes on to equate this in similar fashion to how teachers "must make critical choices as they plot a course for their learners" (p. 25). Curriculum mapping puts the focus on improved teaching and learning for all students.

Goals of Mapping

Furthermore, the data collected from student assessments would then provide a means for examining the learned curriculum based on what was actually taught in the classroom. Kallick and Colosimo (2009) suggested that such a thorough mapping process would require increased teacher collaboration in order to address the continuity of curriculum from grade to grade and from year to year. Additionally, the maps themselves need to be continuously reviewed, revised, and refreshed.

Jacobs (2010) offered a reminder of how the goal for curriculum mapping is to bind together the three fundamental elements of teaching and learning, that is, curriculum, instruction, and assessment. In this regard, Jacobs (2010) described how "mapping allows us [as educators] to zoom into each element [of curriculum planning] and have the simultaneous capability to take a wide-angle view" (p. 21). It is through the process of curriculum mapping that data-driven dialogue (Love, 2009) can take place within the school culture and a clearer picture can be disclosed regarding the "who, whom, what, where and when, why, how, [and] what results" (Dillon, 2009, p. 347) that are comprising the school curriculum and that can guide school improvement.

In summary, as declared by Love (2009), when collaboration is part of the school culture, along with the systematic use of data for improving pedagogy and a commitment of learning extended to all students, improved achievement becomes more than a possibility, it becomes a reality. To illustrate this point further, I will refer to a well-known quote by Abraham Lincoln, delivered in 1858, in his "House Divided Against Itself Speech" which was presented at the Springfield, Illinois statehouse for the

Republican State Convention (Abraham Lincoln Online, 2013). In his speech to the Republican delegates, Abraham Lincoln said, "If we could first know where we are and whither we are tending, we could then better judge what to do and how to do it" (para. 7). I think this quote from Abraham Lincoln earnestly sums up the purpose of implementing curriculum mapping within a school culture. The difficulty lies in how this can be achieved.

Research Terms and Efforts

While conducting this review of literature addressing the problem of curricular alignment in a private high school and the implementation of a transformational change within the school culture through the utilization of curriculum mapping, I primarily relied on the education databases of ERIC and Education Research Complete, in addition to the link for electronic books, all available through the Walden University Library. My primary search terms included: curriculum mapping, curricular alignment, school culture, change theory, and case study research. I also relied on the wonderful reference librarian at my local public library, who was able to readily acquire requested books for me through the inter-library loan program.

Implications

One significant implication of this research study is the anticipation of re-accreditation of this private high school in a suburb of Chicago after the AdvancED audit to be conducted by NCA CASI in the 2014-2015 school year reveals curricular alignment and common assessments to be demonstrated as a result of the school stakeholders effectively implementing the utilization of curriculum mapping. In other words, the

overall intent of this study was to explore the strategies that were incorporated in order to implement the process of curriculum mapping within a school culture and to present the experiences and perceptions of administrators and teachers who were involved in the implementation of curriculum mapping for aligning the curriculum for improving teaching and learning at this private high school.

Furthermore, this study seeks to contribute to the understanding of the process of implementing curriculum mapping for aligning the curriculum, in order to benefit other educational organizations seeking to implement curriculum mapping within the culture of their respective schools. Therefore, an implication for the direction of the project, based on the findings of the data collection and analysis presented in Section 2, is the framework for a professional development evaluation training plan with modules for addressing strategies schools might use when implementing the process of curriculum mapping to address curriculum alignment. These recommended strategies were garnered through qualitative inquiry and are presented in Section 3.

Summary

The focus of this introductory section was on the lack of curricular alignment at a private high school in a suburb of Chicago and how the implementation of curriculum mapping can be used to align the curriculum, thereby helping to establish educational equity and improving overall student achievement.

The challenge for the administrators and teachers of this private high school arose from managing the implementation of change in regards to the use of curriculum mapping within the school culture.

The conceptual framework for this research study was derived from the work of researchers examining the problem of implementing organizational and cultural change, while the critical review for this case study delved into the issue of curricular alignment as it relates to student achievement and the use of curriculum mapping as a tool and a process for improving curricular alignment. The next section of this study describes the methodology of my research in terms of the design of a qualitative case study and the data collection and analysis from archival documents, personal observations, and open-ended interviews.

Section 2: The Methodology

Introduction

This research study involved a qualitative approach to answering the central research question to identify what steps or strategies administrators and faculty used for implementing curriculum mapping to improve curricular alignment in a private high school in order to integrate this tool into the school culture. The design and integration of education's three primary components (curriculum, instruction, and assessment) must be coordinated, or aligned, together in order to promote effective student learning and achievement (Ice et al., 2012; Roach et al., 2008). A qualitative research approach was determined to be the best approach for answering the research question of this study due to three primary characteristics comprising the nature of qualitative research (Bogdan & Biklen, 2007; Creswell, 2013; Merriam, 2009).

Characteristics of Qualitative Research

Bogdan and Biklen (2007) revealed that the term *qualitative research* was not in use until the late 1960s. Prior to this usage, research was primarily referred to as being quantitative in nature. Although both quantitative and qualitative researchers alike have emphasized a disciplined approach to collecting data that will assist in answering a specific research question, qualitative research questions are not centered on operative variables. The distinguishing difference of qualitative research from a quantitative approach is the researcher wanting to gain insight and understanding from the participants' own frame of reference by spending time with the study participants in their own natural settings (Bogdan & Biklen, 2007). Following are the three primary

characteristics of qualitative research that logically led to providing data for answering the over-riding research question of this study.

Constructing Meaning

The first characteristic of qualitative research that was valuable in answering the guiding question of this research study was in terms of seeking to understand a phenomenon from the perspectives of the participants in their natural setting (Bogdan & Biklen, 2007; Merriam, 2009). Merriam (2009) referred to this understanding as being the "emic or insider's perspective" (p. 14). The underlying assumption for this characteristic of qualitative research was that the participants' perspectives were heavily influenced by the setting in which the phenomenon being studied took place. The focus of the research was concerned with a process rather than with a product or outcome (Bogdan & Biklen, 2007).

An Inductive Approach

The second characteristic of qualitative research that was applicable towards answering the research question of this study was how the researcher would serve as the primary collector and analyzer of the data (Merriam, 2009). Due to my direct involvement as the researcher in gathering and analyzing data, this qualitative research took on an inductive reasoning approach. In other words, I did not develop a theory for how to implement successful change in a school culture from the top down. Rather, the process regarding how to plan and implement for successful transformational change within an educational setting, in this particular case by integrating curriculum mapping as

part of the school culture, developed from interconnected, disparate pieces of collected data (Bogdan & Biklen, 2007).

Descriptive Data

This inductive process of understanding a phenomenon led to the third characteristic of qualitative research that made this style of research highly suitable for this study: the richly descriptive data that was collected through conducting qualitative research. The collective data were obtained from transcripts from interviews, field notes from observations, and information from archival documents. In this way, I was able to conduct research as the primary instrument for the data collection, and I also conducted analysis of the data to abstract concepts and themes. It was this rich, descriptive data collected and analyzed from qualitative research, rather than numbers from a quantitative approach, that were applicable to answering the guiding question put forth for in this research study. (Bogdan & Biklen, 2007; Creswell, 2013; Merriam, 2009).

Approaches to Qualitative Research

Qualitative research involves constructing meaning from participants' perspectives as they interact within their natural settings, thereby allowing for several types of approaches for achieving this style of inquiry. This section addresses four of these qualitative research approaches, concluding with a justification for the chosen methodology of a case study for this research study.

Phenomenological Studies

Merriam (2009) stipulated that because all qualitative research inquiry emphasizes the experiences, perspectives, and interpretations of the participants of the

study, all qualitative studies draw from a phenomenological approach. However, the task of the phenomenological researcher is to capture the essence of those experiences, perspectives, and interpretations as they relate to the participants' views of reality (Lodico, Spaulding, & Voegtle, 2010; Merriam, 2009). The qualitative research approach of a phenomenological study was not selected for this study because the aim of this particular research study was to do more than just garner an understanding of how participants constructed meaning of their experiences with curriculum mapping.

Grounded Theory

The primary focus for this type of research study is the emergence of a theory that is "grounded" in the collected and analyzed data (Lodico et al., 2010; Merriam, 2009). A grounded theory approach to qualitative research is useful when the researcher is trying to generate a theory or an explanation of a process that involves people interacting together, relative to a single topic (Creswell, 2012). The qualitative research approach of a grounded theory study was not selected for this study because this particular research study did not focus on developing a theory of change.

Ethnographic Design

Creswell (2012) defined ethnographic designs as literally meaning "writing about groups of people" (p. 461) with the goal of developing an overall portrait of the culture-sharing group being studied. An ethnographic design was not selected for this study because although the culture of the school setting was considered for this research study, the data were gathered from multiple levels rather than from only one specific group of people within the school (Creswell, 2012).

Case Study

A key characteristic of a case study approach is gathering data from multiple sources, including perspectives from participants (Creswell, 2012; Gillham, 2010; Merriam, 2009). For this reason, the methodology for this study was chosen to be that of a case study. I wanted to discover and identify from the perspectives of the participants, along with other sources of evidence, what fundamental steps or strategies educational leaders were using for implementing curriculum mapping as an integrated tool of the school culture. Yin (2011) declared an advantage to using the methodology of a case study when seeking answers to research questions asking the *what*, *how*, and *why* of a particular phenomenon.

Furthermore, as explained by Gillham (2010), case study methodology can be described as seeing the case from the perspective of the people involved with the case, or seeing the case from the inside-out, so to speak. As stated by Bogdan and Biklen (2007), "Administrators' views of what was supposed to happen or what went wrong are given neither more nor less weight than what the staff [faculty] think of what happened" (p. 224). In other words, the emphasis of the case study is in terms of the process for how things happened, rather than on reaching a particular outcome and in the telling of what happened from many viewpoints (Bogdan & Biklen, 2007).

Creswell (2012) defined a case study as being an in-depth exploration of a bounded system. A case study was the chosen methodology for this research study because I was examining a bounded system of a private high school by *fencing-in* (Merriam, 2009) the unit of analysis that defined my investigation. I had determined that

a case study methodology would be applicable for this study because this type of research design allowed for a rich, thick, complete, and literal description (Lodico et al., 2010; Merriam, 2009) of my investigation into the steps or strategies to implement curriculum mapping for improving horizontal and vertical curriculum alignment in a private high school.

Participants

According to Lodico et al. (2010), the sampling procedure used in qualitative research studies is purposeful sampling, that is, where the researcher identifies participants of the study because they have specific knowledge and experience regarding the topic being studied. This is due to the primary goal of gathering evidence that is accurate in reflecting the reality of the case as perceived by the participants (Lodico et al., 2010). The specific demographics of the participants of this case study were seven men and three women. The educational experience of these 10 participants, aside from their own schooling, ranged from 5 to 37 years, with time teaching at this private high school ranging from 3 to 14 years.

Criteria and Justification for Selection of Participants

The participants for this case study were the school administrators and one faculty member from the eight different academic disciplines (English, Fine Arts, Foreign Language, Math, Physical Education, Religious Studies, Science, and Social Studies) selected based solely on participation agreement and, when possible, varied by teaching experience and grade level. All of the participants selected had been involved in the curriculum mapping implementation process at this private high school.

The justification for purposely selecting these 10 participants was based on the assumption that due to their wide-range of educational experience and years teaching at this private high school, they would provide deep inquiry and valuable insights, which, in conjunction with further collected data, would lend to discovering answers to this case study's primary research question of recognizing the steps or strategies that were utilized for the implementation of curriculum mapping for improving horizontal and vertical curriculum alignment in a private high school in order to integrate this tool into the school culture. This is analogous to the example provided by Merriam (2009), of the use of purposeful sampling to the situation of consulting with several medical professionals on a difficult medical case. These medical personnel are consulted specifically because of their valuable insights and special experience.

Gaining Access, Establishing a Relationship, and Ethical Protection

The procedure for gaining access to these 10 participants began with obtaining an agreement for data usage and cooperation from the school principal (Creswell, 2012). Once this had been established, and after receiving IRB approval to collect data, I attended one of the monthly scheduled department meetings for the previously identified eight different academic disciplines and explained the goals of my research study concerning their perceptions regarding the steps or strategies used for the implementation of curriculum mapping. After explaining the goal of my research study at the respective department meetings, I then requested participation on a voluntary basis. It should be noted here, that since our administrators are also classroom teachers, they, too, were present at their respective department meetings.

Once participants from each academic discipline had been selected based on their willingness to participate in this study, establishing a researcher-participant working relationship began through the distribution of consent forms for each of the 10 volunteer participants. After receiving a signed consent form from each of the 10 participants, I reiterated the nature of my qualitative research with each participant individually and discussed the procedure for conducting the interview with them. I explained how during the interview process I would be taking notes, in addition to also audio-recording the interview using the Voice Record Pro app on an iPad, in order to have an accurate rendering of our conversation (Creswell, 2012). But, I also emphasized to each participant how I would assure their confidentiality by not specifically identifying them by name in the data collection or the concluding results of this study (Creswell, 2012; Saldana, 2013).

For each selected participant, I established an agreed upon date and time to conduct the approximately 30 minute semi-structured interview which would allow for a conversation regarding their perspectives and attitudes concerning the implementation of curriculum mapping at this private high school. Ethical protection of the participants of this case study was thereby provided through informed consent, maintaining confidentiality, and protection from harm.

Data Collection

Yin (2011) recognized that a good case study design would want to examine many sources of evidence for qualitative data collection. Therefore, for this case study, data collection consisted of archival documents of meeting agendas and minutes from the

curriculum mapping implementation committee, observations of the participants' utilization of curriculum mapping via the curriculum maps being developed, and recorded responses of semi-structured interviews with the aforementioned 10 participants of this study. For each of these three sources of data, the following sections describe the justification of the data collection choice, the appropriateness of the data choice for case study research, the number and duration of the data collection, how and when the data was collected and recorded, the process by which the collected data was generated, gathered, and recorded, and the systems for tracking the particular source of collected data.

Documents

Justification for this data choice. Documents have been recognized by researchers as being valuable and readily available sources of data and information for qualitative research studies because they provide a good source of text data and are easily available for data analysis because they do not require the necessity of transcription (Merriam, 2009; Creswell, 2012). Bogdan and Biklen (2007) explained how documents are readily available and provide researchers with the official perspective of the participants involved with the central phenomenon being studied.

The appropriateness of this data choice for case study research. Specifically, Merriam (2009) referred to documents as including "just about anything in existence prior to the research at hand" (p. 140). Therefore, the documents of the curriculum mapping implementation committee's meeting agendas and the minutes of those meetings, provided for rich, descriptive data that was needed in order to best address the

central research question of this case study regarding the steps or strategies that were utilized for implementing the process of curriculum mapping into the school culture in order to improve the alignment of the curriculum and ensure educational equity for all students.

The plan for the number and duration of this data source. Upon receiving permission from the school principal, the archived documents of the curriculum mapping committee's meeting agendas and minutes were gathered from the Principal's Administrative Assistant. The contents of each of these archival documents were then systematically analyzed using a coding procedure to help identify the specific steps or strategies that were put in place to implement the process of curriculum mapping into the school culture of this private high school. This coding procedure used pertinent words and short phrases as code for capturing the primary and relevant content of each meetings' text, concepts, and ideas in order to be able to generate notable construct that symbolized the interpreted meaning of each document for detecting overall salient patterns and categories for this data source in a comprehensive manner (Saldana, 2013). Coding allowed for a holistic viewpoint of the primary content of all of the curriculum mapping committee meeting agendas and minutes diagramming what steps or strategies were used to implement the process of curriculum mapping into the school culture of this private high school.

How and when this source of data was collected and recorded. Permission to access the archived curriculum mapping committee meeting agendas and minutes was obtained from the principal of this private high school via a signed Letter of Cooperation

and Data Use Agreement form. This data was gathered and collected upon IRB approval of this research study. These archived documents were scanned to a password-protected file located on Google Drive in order to have and save digital copies of the collected data (Creswell, 2012).

The process by which this collected data was generated and gathered. As previously discussed, collection of archival documents was gathered upon receipt of permission from the school principal and with IRB approval. Scanning, for the purpose of having a digital copy, allowed for a digital record of these archival documents.

The system for tracking this source of collected data. The system for tracking these archival documents was that once they were scanned, the documents were organized chronologically and examined for completeness, accuracy, and relevance (Creswell, 2012) for addressing the guiding research question of this case study concerning the implementation steps or strategies for utilizing curriculum mapping within a school culture for the purpose of curricular alignment. Emerging understandings of the collected data from the archival documents were kept track of using a research log (Appendix B) to catalog and reflect on the data on an ongoing basis (Merriam, 2009) in order to recognize and understand the fundamental steps or strategies that were utilized to implement the process of curriculum mapping into the school culture for the purpose of improving curricular alignment.

Interviews

Justification for this data choice. According to Merriam (2009), a semi-structured interview format "allows the researcher to respond to the situation at hand…

(p. 90). As explained by Bogdan and Biklen (2007), in-depth interviewing allows for an understanding of perspective and behavior from the participants' own frame of reference.

The appropriateness of this data choice for case study research. Creswell (2013) recognized responses to interview questions as being a valuable source of rich data for case study research when the questions are open-ended and focused on understanding the central phenomenon of the study.

The plan for the number and duration of this data source. The use of a five question, approximately 30 minute, semi-structured interview (Appendix C) with each of the 10 participants of this case study allowed for conversations concerning perspectives and attitudes regarding the implementation of curriculum mapping.

How and when this source of data was collected and recorded. Permission to conduct interviews with the ten participants of this research study was obtained from the principal of this private high school via a signed Letter of Cooperation and Data Use Agreement form. These semi-structured interviews were then scheduled with the consent of the participants and upon receipt of IRB approval to collect data for this research study. These semi-structured interviews were audiotaped in order to provide a detailed record of the interview, and then I transcribed these taped interviews, in order to assist with the analysis of this collected data. At the scheduled time of the interviews, I reiterated to each participant how their confidentiality would be maintained by not specifically identifying them by name in the data collection and results.

The process by which this collected data was generated and gathered. Lodico et al. (2010) recommended the use of an interview protocol because it would assist in

providing some means of standardization for collecting data from the semi-structured interviews. Semi-structured interviews were conducted using implementation analysis questions derived from Holcomb's "Analyzing Implementation" (2004, pp 217-220). These semi-structured interview questions were presented to each of the 10 participants in advance of our scheduled interview time. The interviews themselves were recorded using the Voice Record Pro app, available for the iPad from the iTunes store. The Voice Record Pro app allowed for the recording of the interviews and then the audio file was exported to Google Drive to be transcribed. It should be noted here that, unfortunately, two of the 10 participants of this research study, at their scheduled interview times, had been suffering from severe bronchitis. Both of these participants informed me that they still wanted to be part of my study, but that they would not be able to talk for the recorded interview. Rather than do the recorded interview, both of these participants graciously typed up their responses to my interview questions and sent their responses to me via email. As was noted in the IRB "Request for Change in Procedure" form, this action was done by the participants' own initiative and was not requested by me. I received IRB approval to implement the requested changes in data collection procedure for these two participants' interview responses and that the approval number for this research study, 03-17-14-0287014, would still remain the same.

The system for tracking this source of collected data. Upon conclusion of each interview, the audio recordings were transcribed on a security-coded iPad using an audio-transcription app called "Transcribe" from chrome.google.com. The transcribed interviews were then saved to a password-protected file located on Google Drive.

Observations

Justification for this data choice. Creswell (2013) recognized observations as a complete participant as being a valuable source of data because the researcher is fully engaged with the study's participants being observed and Merriam (2009) equates field-notes, the written account of observations, as being on par with transcripts from interviews. Yin (2011) echoed this sentiment of direct observations of participants by the researcher as being a valuable source for case study data because of the opportunity to record the experiences and perspectives of the participants within the contexts of the natural setting.

The appropriateness of this data choice for case study research. Merriam (2009) explained how observations might be conducted in conjunction with interviewing and document analysis in order to triangulate and further substantiate the findings of case study research. Observations conducted of the 10 participants' utilization of curriculum mapping provided data for addressing the question regarding the approach to curriculum planning for mapping at this private high school in order to better align the curriculum.

The plan for the number and duration of this data source. Observations of the 10 participants' utilization of curriculum mapping for this research study took place within the setting of the private high school. These observations were of the duration of approximately 15 to 30 minutes and were conducted by utilizing the curriculum maps as they were being developed for each of the courses taught by the 10 participants of this research study.

How and when this source of data was collected and recorded. Permission to observe the curriculum mapping of the ten participants of this research study was obtained from the principal of this private high school via a signed Letter of Cooperation and Data Use Agreement form. These observations began upon receipt of IRB approval for collecting data for this research study and with the consent from each of the 10 participants. Observations of participants' curriculum mapping were recorded using a researcher-designed observational protocol form (see Appendix D).

The process by which this collected data was generated and gathered. The observational protocol form was used to record field-notes regarding how people interacted with the activity of curriculum mapping. These field-notes are highly descriptive in nature in terms of capturing the experiences of the participants in the setting, which further allows for the collection of extensive data for addressing how the administrators and teachers of this private high school approached the process of curriculum planning for mapping at this private high school. My personal reflective commentary on the observations of the curriculum mapping process was also included in these field-notes, as is recommended by Creswell (2013) and Merriam (2009).

The system for tracking this source of collected data. The observational protocol form was used to record field-notes describing my observations of the participants' curriculum mapping activities as soon as possible after observing (Merriam, 2009). Each observation was recorded as to the date, the course mapped, the setting, and the participant identifier.

Gaining Access

In order to collect the aforementioned data, I first obtained a signed Letter of Cooperation and Data Use Agreement from the principal of this private high school granting me permission to access archived documents of curriculum mapping committee planning agendas and meeting minutes, to conduct and record the responses of semi-structured interviews with the participants of this case study, and to record field-notes based on observations of the ten participants' mapping progress. Upon receiving IRB approval, I attended one of the monthly scheduled department meetings for the previously identified eight different academic disciplines to explain the overall goal of my research and to request participation on a voluntary basis. Once volunteers had been identified, I distributed a consent form to each of the 10 participants and reiterated the nature of this research study with each participant individually. I then established an agreed upon date and time to conduct the semi-structured interview with each of the 10 participants and to observe their mapping progress as they developed their curriculum maps.

The Role of the Researcher and Addressing Researcher Bias

As the setting for this case study was the high school where I am currently teaching, as the researcher of this study, I was taking on the role of a participant as observer (Lodico et al., 2010). This was because I am a member of the faculty at this private high school and I actively participated in the activities and interactions that took place involving the implementation of curriculum mapping within the school culture. As a teacher at this high school, I have served as a member of the North Central

Accreditation committee and a member of the Curriculum Mapping committee. I participated in discussions, meetings, and professional development activities regarding the implementation of curriculum mapping at this private high school, both before and during this study. However, I am not involved in the evaluation of the administration or the faculty of this private high school.

My service on both the North Central Accreditation committee and the Curriculum Mapping committee has allowed me to form my own ideas and biases regarding the necessity for curriculum alignment at this private high school and how implementation of curriculum mapping should be carried out. My level of personal involvement as a participant observer at this case setting filtered how I documented, coded, and perceived my collected data (Saldana, 2013). For example, my personal involvement at this case setting affected the type of questions I asked during the semi-structured interviews, as well as, the formatting of my observational field-notes and the analytical coding of my data. However, the triangulation of multiple data sources, along with my substantial involvement and meaningful participation at this particular case setting, lends to the credibility of this study.

To assist in minimizing researcher bias, I used member checking by sending transcribed interview responses to all participants for their review, to ensure that my own perspectives did not influence how participants' perspectives were portrayed in the data analysis. Additionally, as recommended by Lodico et al. (2010), I monitored my personal bias and own subjective perspectives by journaling and recording reflective field-notes. A final means of addressing researcher bias was conducted by a thorough tracking of my

procedures and processes used to collect and analyze all sources of data in order to enhance dependability of this qualitative study (Lodico et al., 2010).

Data Analysis

The number one goal of qualitative data analysis is to make sense out of the multiple pieces of collected evidence. As is recommended by Merriam (2009), data analysis was done in conjunction with the data collection. As stated by Merriam, "Without ongoing analysis, the data can be unfocused, repetitious, and overwhelming in the sheer volume of material that needs to be processed. Data that have been analyzed while being collected are both parsimonious and illuminating" (2009, p. 171). Yin (2011), also warned how potential data analysis confusion and difficulties can be drastically reduced, by simply having a good analysis strategy in place ahead of time.

The data analysis strategy for this case study was based on the theoretical framework of the process of change. As previously stated herein, the success of aligning the curriculum depends on the success of the implementation process for utilizing curriculum mapping, which in turn depends on the success of the process of change within the school culture. In order to build a general understanding and knowledge of the necessary steps or strategies for the implementation of curriculum mapping into the school culture for the purpose of curricular alignment, my data analysis was guided by the core premises of implementing a planned change as described by change theory researchers Fullan (1982, 1993a, 1993b, 2001, 2006, 2007), Kotter (2012), Lewin (1951), Norman (2010), and Rodgers (1995, 2003).

In order to best manage and organize the qualitative data that was collected for this case study, coding of the data was used to establish the construction of categories and themes (Merriam, 2009; Lodico et al., 2010; Saldana, 2013). Creswell (2012) used the analogy of peeling back the layers of an onion for describing a systematic process of analyzing the multiple pieces of collected qualitative data. Coding the data allowed for a pattern to emerge from the multiple data sources, which then allowed for me, as the researcher, to interpret the story that this case study was revealing. In order to conduct a systematic interpretation of the collected data, I followed the coding procedural recommendations from several researchers (Yin, 2011; Creswell, 2012; Saldana, 2013).

The Procedure for Coding Data

My first step for coding the data was to read through the collected data and highlight relevant text, that is, any wording that was specifically related to my research question concerning the necessary steps or strategies for the implementation of curriculum mapping for integrating this tool into the school culture. Beginning my data analysis guided by the method described in this first step assisted in making the amount of data more manageable and less overwhelming (Yin, 2011). A system of code-names in the form of letter identifiers was also developed to maintain the confidentiality of the 10 participants (Saldana, 2013).

The second step of the coding procedure for the data analysis of this case study was to read through the highlighted relevant text to further identify repeating concepts and/or ideas. I used the margins of the archived documents, observational field-notes, and interview transcripts to record similar wording or use of phrases by the participants in

describing or expressing similar concepts or ideas (Creswell, 2012). The third step of the coding procedure was to use the recurring concepts and/or ideas identified in the second step of analysis to recognize themes (Yin, 2011; Creswell, 2012). The fourth step of my coding procedure for the data analysis of this case study was to use a pattern-matching technique (Yin, 2011) for connecting the themes to the theoretical framework of my literature review.

The final step of data analysis was to examine the thematic patterns (Yin, 2011; Creswell, 2012; Saldana, 2013) for information that will assist in building knowledge towards understanding the necessary steps and strategies for the implementation of curriculum mapping into the school culture for the purpose of curricular alignment.

To assist with the process of making sense out of the multiple pieces of collected evidence, Saldana (2013) also recommended the researcher strive for the personal attributes of being organized, exercising perseverance, dealing with ambiguity and maintaining flexibility, along with, being creative, being rigorously ethical with the participants as well as the data, and using extensive vocabulary in order to convey the rich, thick descriptive data collected from multiple sources of evidence. I strived to incorporate these attributes while conducting this research study and the subsequent data analysis.

Accuracy and Credibility of the Findings

Constructing categories or themes that relate to the collected data helped to ensure the validity and reliability of this case study (Merriam, 2009). To further promote the accuracy and credibility of the findings of this case study, member checks concerning the

data were conducted. Merriam (2009) described member checks as "taking the data and tentative interpretations back to the people from whom they were derived and asking if they are plausible" (p. 229). Additionally, the data analysis for this case study incorporated triangulation of the evidence by analyzing the data via a pattern-matching logic to see if the patterns coincide, which also assisted in strengthening the validity and the reliability of this case study (Merriam, 2009; Yin, 2011). One of the benefits of using case study methodology for this study was that this research design provided the opportunity to use triangulation due to the collection of data from several different sources thereby providing rich, thick descriptive data (Merriam, 2009; Yin, 2011).

Dealing with Discrepant Cases

The procedure for dealing with discrepant cases, or inconsistent accounts, was based on a determination of the accuracy and reliability of the findings from the data analysis as verified using member checks and peer-debriefing (Merriam, 2009; Yin, 2011). Lastly, validity of the data analysis may be reflected in the transferability or reader generalization of the findings. As explained by Merriam (2009), the extent to which the findings of this case study, which examined the implementation of curriculum mapping at a private high school, can be transferrable to other educators who read the findings and find these results applicable to their own school organization. In this regard, 21st century educators will be better equipped to meet the changing and developing needs of all students.

Qualitative Data Results

As is recommended for case study methodology (Yin, 2011), multiple sources of data were collected and analyzed for determining what steps or strategies were involved in the implementation of the process of curriculum mapping to improve curriculum alignment. Data sources consisted of archival documents of meeting agendas and minutes, responses from semi-structured interviews and observational field-notes of the mapping process. Guided by the theoretical framework of the process of change as presented in the Section 1 Literature Review, a summary of each data source will be provided here first, followed by an overall summary of triangulated data results in order to address the research questions concerning the steps or strategies involved in the implementation of the process of curriculum mapping at this private high school.

Data Results from Archival Documents

The data results of the archival documents of meeting agendas and minutes chronicled the steps and strategies that were used to implement the process of curriculum mapping at this private high school. These data results provided evidence for answering the first research question regarding, "What steps or strategies were involved in the implementation of the process of curriculum mapping to improve curriculum alignment?"

A descriptive data summary of the archival documents is provided here, based on the emerging understandings of data collected from the Curriculum Mapping Committee's (CMC) meeting agendas and minutes, outlining the steps or strategies that were involved in the implementation of the process of curriculum mapping to improve curricular alignment at this private high school. As previously indicated while discussing

the system for tracking data collected from archival documents, Appendix E provides an example of recorded emerging understandings from an archived document of a CMC meeting agenda, and a scanned copy of an archived CMC meeting agenda from March, 2011 is provided in Appendix F.

Furthermore, Figure 1 is presented at the conclusion of this descriptive data summary of archival documents as a visual representation of a flow chart depicting a timeline of the documented steps and strategies to augment the patterns and relationships that emerged from the data analysis of the CMC's meeting agendas and minutes regarding what steps or strategies were involved in the implementation of the process of curriculum mapping to improve curricular alignment at this private high school.

As previously discussed, during the 2009-2010 school year, an AdvanceEd audit of this private high school was conducted by the NCA CASI (2002-2013). The results of this AdvanceEd audit were then shared with the faculty and staff of this private high school in August, 2010 or the beginning of the new school year for 2010-2011. The results of the AdvanceEd audit necessitated the implementation of a process that would allow for aligning the expected curriculum to the actual curriculum, thereby assisting with the development of common assessments. It was determined by the school administrative team that the tool and process of curriculum mapping would be the ideal technique to implement into the school culture for the purpose of aligning the curriculum in order to develop common assessments.

During the back-to-school in-service meeting for the 2010-2011 school year, the process of curriculum mapping was introduced to the faculty via a PowerPoint

presentation based on the work of Heidi Hayes Jacobs (1997; 2004). This presentation included a description of what curriculum mapping is, the fundamental purpose of mapping, what is depicted in a curriculum map and what curriculum maps look like. A request was then made to the faculty for volunteers to form a curriculum mapping committee (CMC). The newly formed CMC met for the first time on September 22, 2010 and was comprised of seventeen members; thirteen of which were teachers, one school librarian, and three school administrators. I was not an initial member of the CMC, but I became involved with the CMC later on in the implementation process.

Analysis of archived documents of meeting agendas and meeting minutes indicated that the CMC initially met on a two-week basis. The discussions during these initial meetings focused on what the process of curriculum mapping meant for committee members individually and then in the context of the overall school community. Additional discussion was focused on defining the curriculum mapping process in terms of what would work for this particular school culture.

The CMC determined that it would be useful from a communication and collaborative standpoint to use the curriculum mapping software for mapping the curriculum of this private high school. The thirteen members of the CMC that were in attendance formed subcommittees to investigate different curriculum mapping software providers and each subcommittee evaluated the pros and cons of one of the nine particular curriculum mapping software providers under consideration. The subcommittee evaluations of nine different software providers were presented two weeks later at the second meeting of the CMC on October 7, 2010 and the field selection of

software providers was narrowed down to five companies. An additional two weeks after, on October 20, 2010, at the third meeting of the CMC, a decision was formalized to proceed with establishing a contract agreement with Rubicon Atlas (Rubicon International, 2014) as the curriculum mapping software provider.

Beginning in the second semester of the 2010-2011 school year, a contract agreement was established to have Rubicon Atlas (Rubicon International, 2014) serve as the curriculum mapping software provider for this private high school. In March 2011, assisted by the curriculum mapping professionals of Rubicon Atlas, the CMC of this private high school drafted a curriculum mapping strategy requirements agenda (Appendix F). This agenda outlined the overall vision, implementation strategies, professional development considerations, and mapping template design, including standards, outcomes or benchmarks alignment for implementing the process of curriculum mapping into the school culture.

In April 2011, Phase 1 of Rubicon Atlas' methodology for the mapping process began. This phase focused on assembling a Core Leadership Team (CLT), developing and communicating the goals of the mapping process, and defining the requirements of the Rubicon Atlas software system (Rubicon International, 2014). The CLT consisted of eight of the original seventeen CMC members, plus two newcomers to the curriculum mapping initiative. This ten member CLT was comprised of seven teachers and three school administrators. I was not an original member of the CLT. However, for various reasons that do not involve the scope of this research study, four teachers and one administrator of the original CLT are no longer working at this private high school,

therefore, I had been recruited to be a member of the CLT during Phase 1 of the process for implementing curriculum mapping for the purpose of curricular alignment.

A webinar with a representative from Rubicon Atlas was attended by the CLT in May, 2011 and a full-day curriculum mapping workshop was held in June, 2011. The webinar and full-day summer workshop initiated Phase 2 of strategies for implementing the mapping process, that is, preparing to launch the process of curriculum mapping to the entire faculty by training the CLT. Phase 2 continued into October of the 2011-2012 school year, when the CLT attended a webinar hosted by Rubicon Atlas focusing on "The Culture of Compliance" (Rubicon International, 2014). In November 2011, at a morning faculty in-service, the professional development was devoted to practicing the process of curriculum mapping using the outline of a fictitious course (Appendix G).

Phase 3 of strategies focused on the launching of the mapping process to the entire faculty began in earnest in January 2012, at the beginning of the second semester of the 2011-2012 school year. Professional development time for conducting curriculum mapping was specifically allotted on a monthly basis for the remainder of the 2011-2012 school year, with the expectations that the faculty were completing the mapping process according to the established school calendar for the respective academic year (Jacobs, 1997, 2004; Jacobs & Johnson, 2009). The curriculum being mapped was also to be a reflection of what was actually being taught in the classrooms on a day-to-day basis (Jacobs, 1997, 2004). When the 2011-2012 school year concluded, the faculty was instructed to continue the mapping of their respective taught courses over the summer.

The implementation of the curriculum mapping process within the school culture of this private high school began to get side-tracked in September of the 2012-2013 school year when the focus of the allotted professional development time switched from curriculum mapping to the introduction of Response to Intervention, or RTI (National Center for Learning Disabilities, 2014), which was intended to bring clarity to the use of data and evidence-based practice for the determination of instructional strategies used in the classroom. In October 2012, the Professional Development focus was on Executive Functioning Skills (National Center for Learning Disabilities, 2014). In November of 2012, the School Board of this private high school announced that a one-to-one technology initiative would be put in place for the 2013-2014 school year and all the faculty would receive an iPad in December, in order to become more familiar with the technology in preparation for the new school year.

Therefore, professional development for the entire second semester of the 2012-2013 school year was devoted to the iPad one-to-one initiative and curriculum mapping was put on the back burner and no longer the central focus of professional development for the faculty of this private high school. However, the stated expectations from school administrators was that the faculty were completing the mapping process according what was being taught in the classrooms on a day-to-day basis. A visual representation of these aforementioned steps or strategies that were involved in the implementation of the process of curriculum mapping to improve curriculum alignment is presented on the next page in Figure 1.

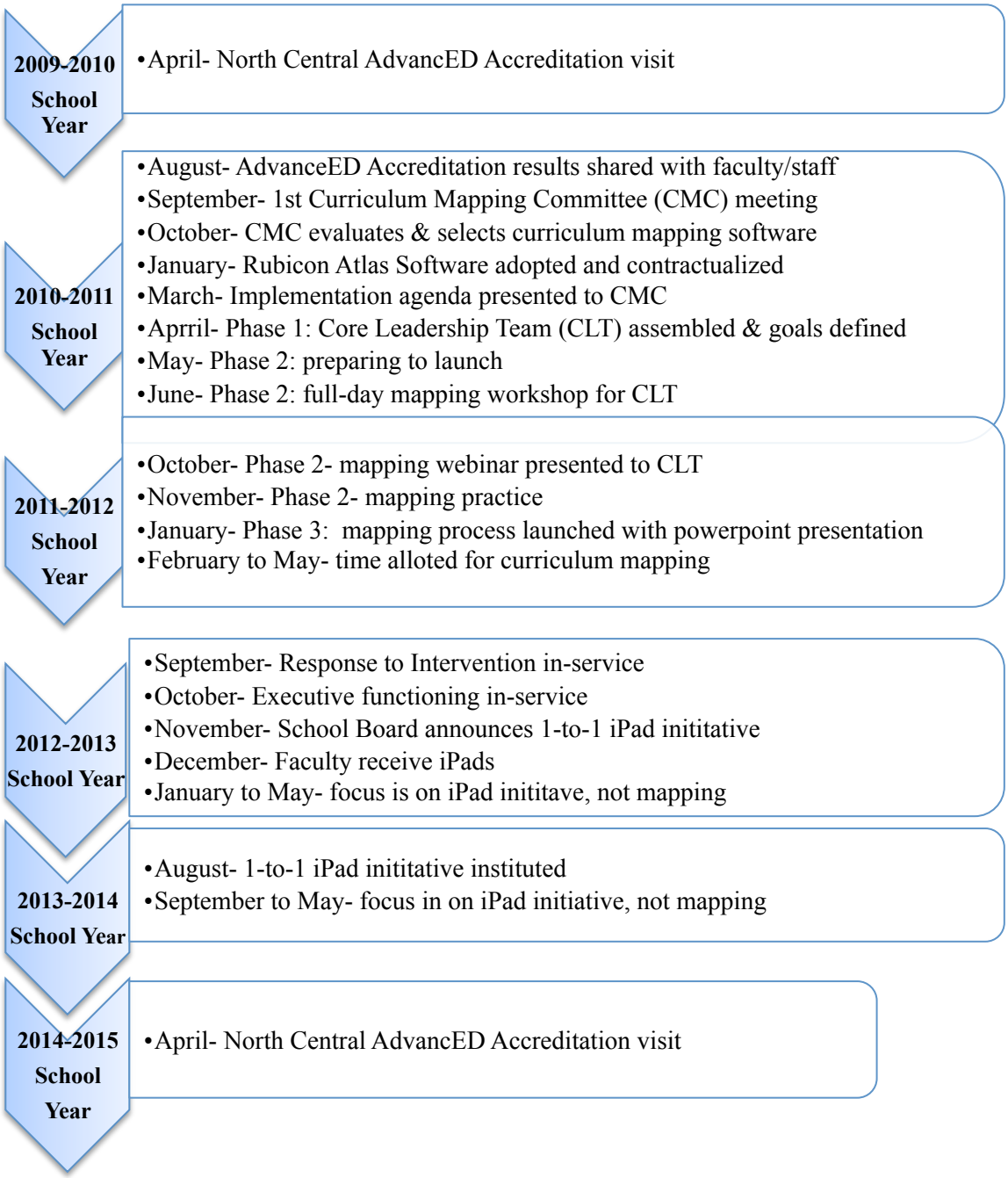

Figure 1. Timeline of documented steps or strategies for implementing curriculum mapping. This flow chart was designed to present a visual explanation of the chronological analysis and sequencing of data results from archival documents of meeting agendas and minutes to demonstrate the steps and strategies, as well as the impediments, of implementing the curriculum mapping process.

Data Results from Interviews

A summary of the results of the data analysis of the transcribed interviews for each participant will be presented here to answer research question 2. of this case study, "What are the administrators' and teachers' perspectives about the steps or strategies that were used for implementing the process of curriculum mapping?"

The data results of the transcribed responses from the semi-structured interviews with each of the ten participants represents their perspectives and attitudes regarding the strategies that were used for implementing the process of curriculum mapping for the purpose of curricular alignment at this private high school. Appendices H-L display the concepts generated by the participants' responses to each of the five interview questions.

The first of the five interview inquiries posed to the ten participants of this case study to glean their perspectives regarding the steps or strategies that were used for implementing the process of curriculum mapping at this private high school asked, "What do you perceive to be the primary goal for the implementation of curriculum mapping within the school culture?" The patterns of participants' perceptions that emerged from the data analysis of the transcribed interviews showed somewhat of a consensus on perspectives regarding the primary goal for the implementation of curriculum mapping within the school culture, which was eight of the ten participants recognized the primary goal of the implementation of curriculum mapping at this private high school as being the process to aide in aligning the curriculum for the purpose of developing common assessments, as was the resulting directive from the AdvancED accreditation visit. As stated by Participant A: " We couldn't assess commonly if we had no common

curriculum." Other perspectives offered recognized the primary goal of the implementation of curriculum mapping at this private high school as incorporating standards and promoting accountability and collaboration.

The second interview question asked, "Which of the strategies that were used for implementing the process of curriculum mapping did you perceive to be useful for you to incorporate mapping for documenting your course curriculum?" A majority of the participants, seven out of the ten, recognized the adoption of the user-friendly Rubicon Atlas software (Rubicon International, 2014) as being a useful strategy for implementing curriculum mapping. Participant D acknowledged how "the software provided us with a lot of examples of curriculum maps from other schools, so it gave us a pretty good idea of what we needed to do." And Participant H also recognized that, "the program that we used, the simple layout of it, was great." Other perspectives offered included the use of a departmental approach with hands-on training, the initial time devoted to the mapping process, and the availability of exemplar maps.

The third interview question asked, "Which of the strategies used for implementing the process of curriculum mapping did you perceive to not be useful for you to incorporate mapping for documenting your course curriculum?" There was not as much of a single patterned response among these perspectives as there was with the first two interview questions. Rather, two primary response patterns emerged from the participants' perspectives regarding barriers to implementation.

The major hindrances to the implementation of curriculum mapping at this private high school, as identified form the perspectives of the ten participants of this case study,

were the decreased allocation of time for teachers to work collaboratively on mapping and the difficulty in the selection and use of standards. Which standards to focus on was a big hurdle of the mapping process due to the fact that the Common Core State Standards, or CCSS, were approved by the state of Illinois right about in the middle of the implementation process for curriculum mapping. Prior to shifting the focus to the CCSS, the standards being used for mapping were the ACT College Readiness Standards and/or the professional standards identified by the professional organizations for each of the eight academic disciplines. All along in the implementation of the process of curriculum mapping it has been a stipulation of this researcher that when there are so many choices of standards, how are there even standards? For example, for the Science Department alone, there was a set of fifteen different standards from which to work from. This aspect of standards will also be discussed in Section 3.

The decreased allocation of time or shear lack of time was also one of the primary patterns that emerged from the participants' perspectives concerning the fourth interview question, which asked, "What are some of the challenges of implementing curriculum mapping within the school culture?" Several perspectives were offered concerning the challenges of implementing curriculum mapping within the school culture. "Never enough time" was identified by nine of the ten participants as being the major challenge to implementing the process of curriculum mapping. As was opinioned by Participant B, "I think now, I think with other things that we kind of have to move on to, time hasn't necessarily been allotted" for curriculum mapping.

Another major challenge pattern identified for the implementation of curriculum mapping at this private high school was the hesitancy or resistance of the faculty towards this innovative change, in other words, teacher buy-in. This was the pattern of perspective identified by seven of this case study's ten participants. As said by Participant G, "I felt like there was a lot of resistance from the teachers." The presence of so much resistance to change also impacts the issues of expectation and accountability, which were two additional patterns that emerged from this inquiry concerning challenges to implementing the utilization of curriculum mapping within a school culture. Seven of the ten participants of this case study discussed issues of expectations and accountability at one point or another during their interview responses. Stated Participant C, "… it is about the culture. And trying to change that culture, so that faculty are more amenable to things that are coming across the ranks rather than from the top down."

Interview question five asked, "What implementation strategies should be revised or added to help promote the utilization of curriculum mapping within the school culture?" This particular interview question delivered the largest disparity of patterns of perspectives from the ten participants of this case study when responding to the issue of revised or added strategies to promote the utilization of curriculum mapping within the school culture. It is difficult to pinpoint a consensus pattern of responses for this question, however, I think this disparity of perspectives regarding what strategies need to be added or revised to promote the utilization of curriculum mapping within the school culture clearly demonstrates the participants' perspectives regarding how this change in

curriculum planning for curricular alignment has not become an integrated part of the school culture (Carter, 2008).

Participants' perspectives pertaining to revised or additional strategies for promoting the utilization of curriculum mapping within the school culture included a provision for more collaboration time, a means of accountability, incentives, and/or rewards for doing what was asked regarding mapping of taught courses and for assessing quality maps, providing testimony from educators who have incorporated mapping within their schools, and providing some form of data depicting the benefits of mapping.

Data Results from Observational Field-Notes

The data results of observational field-notes were obtained utilizing the curriculum maps being developed by the ten participants of this research study as they were planning and developing the maps they are responsible for, based on the courses they teach. A descriptive summary of these observational results of the ten participants' curriculum maps presented here provided evidence for addressing research question 3, "How do administrators and teachers approach curriculum planning for mapping at this private high school?" A representative sample of data from observational field-notes is presented in Appendix M, while an overall tabulated display of the descriptive summary from the observational results is presented in Table 1.

As a result of my role of observer as participant, my observational activities of the ten participants' approach to curriculum planning and subsequent utilization of the mapping process provided a wide range of information (Merriam, 2009). The overall data pattern identified in observations of the ten participants' approaches to curriculum

planning for mapping at this private high school revealed primarily an adapter (Shawer et al., 2008) approach to planning. Although the adapter approach to planning is not strictly a "by the book" transmitter (Shawer et al., 2008) approach to curriculum planning, this planning approach does not promote a culture of collaborative planning towards common assessments. Teacher collaboration addressing curriculum planning is necessary to address the vertical and horizontal alignment and continuity of curriculum from grade to grade (Kallick & Colosimo, 2009). Only five of the twenty-five maps of the participants' curriculum planning were observed as being developed as collaborative maps.

Another data pattern identified by this researcher's observational field-notes obtained utilizing the curriculum maps being developed by the ten participants of this research study was a lack of aligning standards to the curriculum, instruction, and assessments. Standards are not the curriculum, however, standards help to define what all students in a particular course need to know, understand, and be able to do. If the summative, as well as, formative assessments are not aligned to standards, as indicated by the patterns identified in observations of this case study's participants' curriculum planning, it would be extremely difficult to develop common assessments within same subjects, such as all sections of Biology or Western Civilization or Algebra 1.

Table 1

Observational Patterns of Participants' Utilization of Curriculum Mapping

Participant	Number Course(s) Taught / Number Completely Mapped?	Unit Calendar(s)?	Standards & Assessments Aligned?
A	1 / none	yes	evident
B	3 / only 2	2 of 3 maps	not yet evident
C	3 / none	1 of 3 maps	not yet evident
D	3 / none	2 of 3 maps	not yet evident
E	2 / none	1 of 2 maps	not yet evident
F	3 / none	all 3 maps	not yet evident
G	2 / only 1	both maps	not yet evident
H	2 / none	both maps	not yet evident
I	3 / only 2	all 3 maps	not yet evident
J	3 / none	1 of 3 maps	not yet evident

Overall Summary of Data Results

Addressing the local problem of correcting the lack of curricular alignment at this private high school by implementing the process of curriculum mapping was guided by three research questions inquiring as to steps or strategies utilized in the implementation process, administrators' and faculty perspectives regarding those strategies, and how well those strategies assisted with curriculum planning, as evidenced by the mapping process in action. Several of the strategies utilized by this private high school for implementing the process of curriculum mapping within the school culture are supported by core premises of implementing a planned change as described by change theory researchers Fullan (1982, 1993a, 1993b, 2001, 2006, 2007), Kotter (2012), Lewin (1951), Norman (2010), and Rodgers (1995, 2003). For example, one implementation strategy that was supported by core premises of change theory research was the initial decision by the school administrative team to enact the tool and process of curriculum mapping in response to the directive from the AdvancED Accreditation results. This is a decision that was supported by the theoretical framework for the process of change by the organization recognizing that a change is needed, in other words, this decision aligned with Lewin's (1951) first stage for the process of change. This private high school needed to implement a process for aligning the curriculum in order to develop common assessments and ensure academic equity and success for all students.

Additionally, the strategy of using an introductory Powerpoint presentation to communicate to the faculty from the beginning of the implementation process what curriculum mapping is, what it looks like, and why we as a school were doing it, aligns

with Rodger's (2003) reference to communication about the cultural change involving diffusion of the message about the innovation being implemented. A third implementation strategy that was supported by the theoretical framework for the process of change was the building of a leadership team. This strategy is a step in the process of change that is supported by the research of Kotter (2012) and Kotter and Cohen (2002). An effective guiding coalition was established early on in the implementation process. Using a pattern-matching technique (Yin, 2011) for connecting the themes to the theoretical framework of my literature review, I examined the developing thematic patterns (Yin, 2011; Creswell, 2012; Saldana, 2013) for information that would assist in answering the research questions of this qualitative case concerning the implementation of the process of curriculum mapping for curricular alignment.

Alternatively, and unexpectedly, a summary of data results revealed not only what implementation steps or strategies were beneficial towards implementing the process of curriculum mapping as an integrated part of the school culture of this private high school, but data results also revealed specific barriers to the implementation process. As revealed by interview responses and evidenced by observational comments of the mapping process as depicted in participants' curriculum maps, the implementation of the curriculum mapping process completely lost track due to a "perfect-storm" of multiple new initiatives and changes that impacted the faculty of this private school. In the summer of 2013, Rubicon Atlas rolled-out a new version of the curriculum mapping software. Follow-up training was planned for the beginning of the new 2013-2014 school year to

introduce the changes to the mapping software, but the training time was gobbled-up by the iPad initiative.

Additionally, at the start of the new school year, the Technology Curriculum Specialist adopted a new electronic gradebook for teachers to use, of which there was no training. There were numerous glitches and issues with the new gradebook, as well as, with the one-to-one iPad initiative. Given all that the faculty was dealing with at the time, the administration made the decision not to proceed with the professional development training of the new Rubicon Atlas mapping software. However, with an AdvancED Accreditation visit expected for the second semester of the upcoming 2014-2015 school year, these data summary results regarding the steps or strategies that were used to implement the process of curriculum mapping at this private high school revealed the urgent necessity of getting back on track with the process of curriculum mapping.

To answer the three guiding research questions of this case study, four over-riding themes regarding the steps or strategies to address when implementing the process of curriculum mapping for curricular alignment emerged from the patterns and relationships of the triangulated data of this case study. These four themes involved training, using standards, time for collaboration, and accountability or expectations for one's maps. All four data themes need to be interconnected for achieving the primary goal of creating a common curriculum with common assessments. This aspect of addressing the interconnectivity of these four target areas for re-launching the implementation of the process of curriculum mapping for the purpose of curricular alignment at this private high school will be discussed in Section 3.

Conclusion

As explained by Bilken and Casella (2007), one of the integral attributes of qualitative research is the studying of meaning making within the context of the setting of the participants. Gillham (2010) stipulated that qualitative methods of research focus primarily on the type of evidence that would enable myself as the researcher to better understand what has occurred and what is currently going on within the context of the setting of this case study. A case study methodology was chosen for this study because a case in progress was being studied concerning the implementation of curriculum mapping within the bounded system of a school culture (Creswell, 2013; Yin, 2011).

A principle objective of any case study research design is to gain a deeper understanding of participants' perspectives from the context of the natural setting of the case. This primary objective was achieved through the use and triangulation of multiple sources of evidence obtained from the data collection and analysis (Woodside, 2010). Multiple data sources, in terms of observations, archival documents, and semi-structured interviews, were investigated for data collection. The analysis of these multiple data sources occurred as the data was being collected, in order to provide an explanation or assertion for what the recommended steps or strategies are for successfully implementing curriculum mapping within the school culture in order to eliminate the possibilities of gaps and repetition between and within grade levels, in both the content and skills of the expected curriculum, which can markedly influence student achievement.

Although the triangulation of multiple sources of data revealed that the effort to implement the process of curriculum mapping at this private high school has de-railed,

and the effort to implement curriculum mapping at this private high school needs to be re-launched in order to get back on track, four target areas were identified as needing to be addressed for reinstating the implementation of the process of curriculum mapping to improve curriculum alignment at this private high school. This is important not only in preparation for the AdvancED Accreditation visit in April 2014-2015, but more importantly, to provide a viable curriculum for improving teaching and learning to allow for the academic success of all students.

These targeted aspects will be explained in an outline of a recommended framework that this private high school, in addition to other high schools, might consider using when implementing the process of curriculum mapping to address curriculum alignment. This framework plan for re-launching the implementation of the process of curriculum mapping through a Professional Development Evaluation Training Plan will be presented in Section 3.

Section 3: The Project

Introduction

The problem addressed in this case study centered on examining the strategies educators used to implement the process of curriculum mapping within the school culture of a private high school for the purpose of curricular alignment and the development of common assessments. As illustrated by the data summary, the implementation of the process of curriculum mapping at this private high school has been derailed and needs to be set back on track in order to meet the requirements put forth by the AdvancED audit from the 2009-2010 school in anticipation of the AdvancED re-accreditation visit in the 2014-2015 school year.

In this section, I will present a description of the professional development evaluation training plan (see Appendix A) for providing a framework to relaunch the implementation of curriculum mapping within the school culture of this private high school in a suburb of Chicago. This would be for the purpose of curricular alignment and the development of common assessments, which was the directive of the AdvancEd audit visit in 2009-2010. It is crucial for the initiative of curriculum mapping to get back on track within the culture of this private high school in preparation for the 2014-2015 AdvancEd accreditation visit.

Also included in this section is a description of the goals of this project, along with my rationale for choosing this particular project to address the problem of this case study. Following the description of the goals and rationale of this project is a review of the literature that informed this project in addition to the support from the data analysis,

which demonstrated that this project would be an appropriate response to the data findings of this case study examining the implementation of curriculum mapping at a private high school.

This section also includes an explanation for implementing this project at the private high school that served as the case for this research study. The implementation portion of this section discusses the potential resources, existing supports, potential barriers, and recommended timeframe for implementing the re-launching of the process of curriculum mapping at this private high school. The roles and responsibilities of school stakeholders will be included in the implementation discussion.

In additional areas of this section I consider how this project might be evaluated, along with the potential implications this project might have on the local school community, as well as more far-reaching potential implications for social change. An overall summary of the project concludes this section.

Description and Goals

As explained earlier, an AdvancED audit at a private high school in a suburb of Chicago in 2009-2010 necessitated a means of aligning the curriculum and developing common assessments. Therefore, the local problem that prompted this case study was an examination of the strategies educators at this private high school used to implement curriculum mapping for the purpose of curricular alignment and the development of common assessments.

As the data summary in Section 2 indicated, the process of change within the school culture was not successful, and there needs to be another approach to changing the

school culture in order to implement curriculum mapping at this private high school. This project of a new approach to changing the school culture in order to implement curriculum mapping was informed by the triangulation of the data discussed in Section 2. Thus, the framework for this project, a professional development evaluation training plan, consists of four modules spotlighting target areas based on the data results for re-launching curriculum mapping within the school culture. The four modules of the framework plan for this project consists of (a) training of the academic leaders, (b) selecting the standards, (c) promoting a collaborative culture for the development of consensus maps and common assessments, and (d) expectations and accountability.

The goals of this project are in a sense three-tiered. At the first level is the immediate short-term goal, which is to have the faculty of this private high school return to the use of curriculum mapping and collaborating on the development of common assessments. Killian and Roy (2009) pointed out how collaboration and overall school culture "are inextricably intertwined" (p. 36). A collaborative school culture that is characterized as being rather than simply congenial promotes conversations that allow teachers the opportunities to discuss and share instructional practices that tend to lead to student success.

Furthermore, collaboration on the development of consensus maps and common assessments provides teachers an avenue for clarification of the learning standards, expectations, and outcomes, along with a deeper understanding of student learning (Killian & Roy, 2009). When teachers work collaboratively on curriculum maps and the development of common assessments, they can begin to recognize not only potential

curricular discrepancies that require instructional adjustments, but they can identify the curricular strengths as well.

Achievement of the immediate short-term goal of faculty collaboration on the development of consensus maps and common assessments would in turn promote the second level of an intermediate future goal of meeting the re-accreditation expectations when the AdvancEd visit is conducted in the second semester of the 2014-2015 school year. Among these re-accreditation expectations is evidence of an approach, such as the use of curriculum mapping, for aligning the expected curriculum to the actual curriculum and the development of common assessments.

Lastly, at the third level, is the overarching transitional goal of this project, which is to promote a lasting change within the school culture of this private high school by changing a very independently minded and instructionally isolated faculty into a collaborative educational community. It should be noted that I am not, at this time, advocating for, nor aiming for, the introduction within this school culture of a professional learning community (PLC) model. Although I consider the development and implementation of a PLC to be a viable future option for this private high school, a PLC is not an intended goal for this particular project study.

Rationale

Rationale for Project Genre Based on the Problem

As was indicated in the introduction to the problem in Section 1, a major challenge for implementing successful change within a school culture is in terms of how to effectively manage the process of change in a strategic way (Ghavifekr et al., 2013).

During the collection and upon triangulation of the data, the patterns and themes made it evident that the use of curriculum mapping at this private high school had dwindled. The "how" aspect of the change process for implementing curriculum mapping needed to be relaunched in order to meet the required mandates of the 2009-2010 AdvancEd accreditation visit when the school is re-visited in 2014-2015.

A professional development evaluation training plan with modules is needed in order to sufficiently address the spotlighted target areas revealed by the results. In pursuance of a successful relaunching of curriculum mapping within the school culture, the proposed project consists of a four-module framework plan for training of the academic leaders, selecting the standards, promoting a collaborative culture for the development of consensus maps and common assessments, and expectations and accountability. These four target areas were identified in the interview responses of the participants of this study, reflecting their perspectives concerning the primary goal for implementing curriculum mapping in addition to their perspectives regarding the revision of strategies to promote curriculum mapping within this school culture.

Scholarly Rationale for Project Genre

A scholarly rationale for this project takes into consideration the mission of the leading teachers' membership organization of Learning Forward. Originating in 1969 as the National Staff Development Council (NSDC) in Minneapolis, Minnesota, the name change for this educational organization, to Learning Forward, occurred in 2010 (Learning Forward, 2014). Despite the name change of this teachers' organization, the

mission of advancing effective development for teachers to promote the achievement of every student remains the same.

The continuation of improvement and refreshment of a practitioner's knowledge and skills is required of many professions, such as nurses, doctors, engineers and manufacturers. Practitioners in the teaching profession have the same obligation. Continuation of improvement in the form of professional development for educators is recognized as a key means of improving teaching and is fundamental to student learning (Learning Forward, 2014; Lucilio, 2009; Petrie & McGee, 2012). A formal definition for professional development, as offered by Learning Forward (2014), constitutes "a comprehensive, sustained, and intensive approach" of professional learning for improving the effectiveness of both teachers and principals to improve student achievement. This definition of professional development presented by Learning Forward (2014) includes a stipulation that the professional learning provide for job-embedded coaching occurring among established teams of teachers for collaborative opportunities, along with frequent evaluation of the professional development in terms of expectations and accountability. These stipulations are among the targeted areas of the four modules for this project of a professional development evaluation training plan.

Review of the Literature

In order to examine the strategic "how" aspect of the re-launching of the process of curriculum mapping for this project of a professional development evaluation training plan with modules, a literature review was conducted using the educational databases of ERIC and Education Research Complete available through the Walden University

Library, in addition to the literary resources available through the Association for Supervision and Curriculum Development (ASCD) website and membership and benefits. A literature search was conducted using the primary search terms of: professional development, professional learning, school leadership, collaboration, and standards and common assessments.

Professional Development and Learning

Professional development for teachers has been recognized as being a key vehicle through which to improve instruction and curricular alignment, which in turn improves student achievement, thereby closing potential gaps of educational inequality (Farr, 2011; Lucilio, 2009; Petrie & McGee, 2012; Senge, Kleiner, Roberts, Ross, Roth, & Smith, 1999). High-impact, job-embedded professional development focuses, not on the latest program brand name, but on research-based best practices, with the clear imperative for the professional learning guided by the leadership of the school (Reeves, 2010). The research suggests that the most pertinent variable in improving student achievement is not a brand name of the latest educational program, but rather, the most salient variable is the degree of implementation of the transformative program (Bourke & McGee, 2012; Farr, 2011; Towndrow, Silver, & Albright, 2010). In other words, it is the *implementation* of the practice, not the program itself; it is the extent to which the majority of the teachers within the school incorporate the change into their everyday practice.

Physicians, nurses, and other health care professionals need continuous training regarding the latest medical and surgical advancements in order to provide the best available care to their patients in need. Engineers and manufacturers require continuous

learning regarding the latest advancements in building materials, design, and energy efficiency in order to best meet the safety and environmental concerns of their customers. Teachers, similar to these other professionals, also require the continuation and refreshment of knowledge and skills, based on sound research results concerning best practices in teaching and learning, in order to meet the changing needs of their students (Farr, 2011; Lucilio, 2009; Petrie & McGee, 2012; Senge et al., 1999). Therefore, if one is bold enough to teach, one must also be bold enough to learn (K. Mears, personal communication, June 24, 2014). However, as Petrie and McGee (2012) and Senge et al. (1999) have indicated, professional learning and professional development will inevitably involve a profound change within the school culture influenced by the design and delivery of the professional development, which will be impacted by a complex web of contextual factors.

The complex web of contextual factors that can influence the design and delivery of professional development for facilitating a profound change within a school culture was the topic of a keynote address presented by Dr. Greg Dhuyvetter, Superintendent of Catholic schools in Orange County, California, at the National Catholic Educational Association (NCEA) Symposium at the University of Dayton, Ohio. The keynote address presentation, “Here There Be Dragons, Sailing off the Map into a New World of Education,” referred to “dragons” as being anything that blocks our way or keeps us from even attempting fundamental change (G. Dhuyvetter, personal communication, June 22, 2014). In other words, a dragon is any hindrance, real or imagined, that keeps a school

from making a profound or transformative change towards improving student achievement.

Five specific dragons were identified as potential factors that can influence the design and delivery of professional development for facilitating a profound change within a school culture and therefore may need "slaying" when implementing the professional development that will guide a school initiative involving change. It is imperative for school leaders to address these dragons by providing on-going opportunities for professional development involving practice and reflection because if not addressed, these dragons could readily slow, or completely arrest altogether, the incorporation of the change initiative within the school culture (Bourke & McGee, 2012; Senge et al., 1999; Towndrow, 2010). As stated by Farr (2011), effective and successful implementation of a change initiative has to do with making adjustments along the way, especially when encountering a dragon, to help ensure that the implementation process stays on track.

The first dragon identified as a potential roadblock that may need addressing when implementing a school initiative involving change is fear; the fear of failure, the fear of criticism, the fear of being wrong, the fear of change itself (G. Dhuyvetter, personal communication, June 22, 2014). Senge et al. (1999) remarked how this challenge of fear brings about anxiety and concerns of inadequacy or vulnerability. School leaders can quell the dragon of fear by providing professional development that includes ongoing training and practice (Petrie & McGee, 2012). In this way, as explained by Nishimura (2014), a teacher's increasing level of knowledge regarding the new

practice, along with their developing skill set will help to embed the initiative into daily practice so it becomes part of the school culture.

The second dragon that must be recognized when implementing a profound or transformative change is school tradition. “This is the way we have always done it”, or “We tried this before and it didn’t work” (G. Dhuyvetter, personal communication, June 22, 2014). Caruth and Caruth (2013) recognized how school tradition can increase the resistance to change because of the customary response of cynicism from veteran teachers. Danielson (2007), too, recognized how “teachers often hold the institutional memory; they are the custodians of the school culture” (p. 14). Therefore, continued Danielson, school administrators “make a wise investment when they cultivate and encourage teacher leaders” (2007, p. 14). Lucilio (2009) explained how the active involvement of teachers in a leadership role could be a major factor in the effective implementation of a change initiative, such as the re-launching of the utilization of curriculum mapping for curricular alignment, because the sharing of leadership roles bolsters the sense of ownership and responsibility for implementing the change initiative. The resistance to change can be minimized through the development of a culture of collective responsibility and shared leadership (Bourke & McGee, 2012; Trybus, 2011), whereby the change initiative becomes incorporated within the school culture.

Furthermore, the ability to collaborate with colleagues is viewed as being a hallmark of competent leadership because teacher-leaders energize and call to action other faculty members towards the goal of improving teaching and learning (Danielson, 2007). Senge et al. (1999) explained how organizations could shift to new traditions

being established within the school culture as a result of new interactions and new knowledge by providing professional development that generates opportunities for teachers to interact and collaborate in order to promote widespread commitment within the school culture.

The third potential dragon to consider when implementing a school initiative involving change is the misperception, misinterpretation or misunderstanding in the realm of public opinion, in particular involving the expectations of parents and other stakeholders (G. Dhuyvetter, personal communication, June 22, 2014). To deal most effectively with this dragon, Trybus (2011) recommended that school leaders be open and honest in all communications, especially when expressing and sharing why the change is needed, as well as, the overall vision for the change. As explained by Trybus (2011), the vision for the change assists in to making the change "more coherent, understandable, and valuable" (p. 34) to the school community and to various stakeholders. For this reason, school leadership must communicate the vision for the change, such that the change can become an integrated aspect of the school culture.

The fourth dragon that must be addressed when implementing professional development for transformative change within the school culture is the availability of resources. "We don't have enough money, space, and/or time" are common claims for stalling a professional development initiative (G. Dhuyvetter, personal communication, June 22, 2014). According to Lucilio (2009), "lack of time is the greatest challenge to effective professional development" (p. 55). Therefore, opportunities for practice, discussion, reflection, continued follow-up and support, feedback and evaluation are all

required for the sustainability of the change initiative (Lucilio, 2009; Nishimura, 2014; Senge et al., 1999; Trybus, 2011).

The fifth dragon to be recognized and dealt with when implementing professional development for transformative change within the school culture is the idea that the change will be a smooth transition, taking place without any resistance, disruption or tension (G. Dhuyvetter, personal communication, June 22, 2014). According to Senge et al. (1999), "Sustaining any profound change process requires a fundamental shift in thinking" (p. 10). Caruth and Caruth (2013) suggested one strategy for providing a shift in thinking is for school leaders to recognize those teachers, who might be demonstrably resistant to the change initiative and to be conversational, rather than ignore or repress, these teachers. In this way, the message of caring, support, and commitment of working together towards the implementation of the change initiative can be readily conveyed in order to promote the implementation and utilization of the initiative as being a routine part of the school culture.

Professional development can provide the catalyst for the shift in thinking (Senge et al., 1999) by addressing the aforementioned dragons, thereby allowing the change process to occur. Hence, professional development is about change and change involves disruption and tension, which more-often-than-not are both viewed in a negative stance. Consider, however, how disruption and tension can be forces that provide the impetuses for change.

A disruptive force can be transformative because it initiates a change that forces the school community to permanently break old patterns and traditions (G. Dhuyvetter,

personal communication, June 22, 2014). In physics, tension refers to the force exerted on an object. Tension is necessary to keep things afloat or to keep things upright. Maintaining healthy tension during a time of change can help to keep the transformative change moving forward (Senge et al., 1999). However, the introduction or process of implementing within an organization too many initiatives at any one time, can exert an unhealthy tension that can essentially zap an organization's energy, morale, and resources. Reeves (2010) referred to the resulting unhealthy tension due to the multiplicity of demands on teachers as the "Law of Initiatives Fatigue" (p. 7) and he stipulated that keeping a singular focus is strongly recommended.

Furthermore, "When we focus our attention in one area, we can reach a state of purposeful action that yields powerful emotional, physical and professional results" (Reeves, 2010, p. 64). The loss of a singular focus and unhealthy tension within the school culture is relevant to what the data summary indicated had happened to the implementation of the process of curriculum mapping within the school culture of this private high school, to the point in which our progress was stymied by the attempt to implement multiple initiatives simultaneously. The key to successful implementation of the modules for this professional development evaluation training plan project is to minimize the number of changes. It is my strong recommendation to the Administrative Team of this private high school that the re-launching of the implementation for the utilization of curriculum mapping be the only professional development focus for the 2014-2015 school year.

Professional development and learning needs to be extensive and sustained, with opportunities provided for application, practice, reflection, and evaluation (Lucilio, 2009; Nishimura, 2014; Senge et al., 1999; Trybus, 2011). Therefore, a practical implication for this professional development evaluation training plan with modules project is for the academic leaders of this private high school to take the difficult stance of recognizing and slaying the aforementioned five dragons in order to move forward from superficial compliance and all-out resistance towards a deep-seated implementation of the curriculum mapping initiative for curricular alignment.

Training of the Academic Leaders

In the experiences of researchers Perkins and Reese (2014), any significant change to a school's way of doing things creates general discomfort because of the challenges presented to existing practices within the school culture. As stated by DePorter and Reardon (2013), "Culture permeates every aspect of the school" (p. 9) and the overall culture of the school is based on a shared vision. The establishment of a shared vision for the purpose of implementing change begins within a school culture through strong leadership. Turan and Bektas (2013) defined school culture and school leadership as "nested processes" (p. 157), meaning they are linked to each other. The literature in the fields of both business and education emphasizes the central role that leadership plays when implementing a change initiative within a corporate or educational culture (Abilock, Harada, & Fontichiaro, 2013; Deenmamode, 2012; Herrington, 2013; Kotter, 2012; Perkins & Reese, 2014; Turan & Bektas, 2013; Yemm, 2013; Ylimaki & McClain, 2009).

In order for the teachers of this private high school to have a successful transition within the school culture of implementing curriculum mapping for curricular alignment and the development of common assessments, "they must receive professional development specifically geared toward this challenge" (Vaill & Testori, 2012, p. 111). Norman (2010) also recommended changing the school culture through professional development opportunities and training. Therefore, this project of a Professional Development Evaluation Training Plan recommends that the professional development begin with all the members of the Academic Council of this private high school attending a full-day workshop (see Appendix A- Module 1).

The Academic Council of this private high school constitutes the academic leaders of the faculty and consists of the Department Chairs for the eight academic disciplines (English, Fine Arts, Language, Math, Physical Education, Religion, Science, Social Science) along with the Director of Counseling, the Director of the Saint Andre Bessette Learning Center (for students with learning differences and/or difficulties), the Assistant Principal for Academics, and the Principal of the high school. The purpose of the full-day workshop for the twelve members of the Academic Council is to not only re-introduce the updated Rubicon Atlas software, but perhaps more importantly, to set the vision and the direction for the Academic Council members based on what the primary purpose of implementing curriculum mapping was for this private high school. It is critical for all members to understand the specific objectives of the mapping initiative and define similar mapping vocabulary.

Additionally, as is the recommendation of Johnson, Carlile, Checkley, and Baker (2006), "In this workshop, participants [will] review a variety of curriculum maps, examine the components of curriculum maps" (p. 18) and see examples of exemplar maps. In other words, the focus of the full-day workshop for the twelve members of the Academic Council needs to be on developing an understanding for why we are mapping our curriculum in the first place, along with having clearly defined expectations and milestones (Yemm, 2013). This aspect of the full-day workshop for re-training the members of the Academic council reflects the perceptions of the participants of this study as revealed by their interview responses regarding the primary goal for the implementation of curriculum mapping within the school culture and addressing what implementation strategies should be revised or added to help promote the utilization of curriculum mapping for the purpose of curricular alignment.

The mnemonic device of SMARTER, which is recommended by Yemm (2013) and was developed by Doran (1981) as SMART, is a set of criteria that can be used as a guide for establishing the vision, primary goal, and outcomes for implementing a change initiative, such as curriculum mapping, within an organizational culture. Applying the mnemonic device of SMARTER (Yemm, 2013) to the re-launching of the implementation of curriculum mapping at this private high school, provides the focus for the criteria for the recommended full-day workshop for the members of the Academic Council.

The first criterion of the focus for the full-day workshop for all the members of the Academic Council of this private high school centers on the specificity about what

needs to be done for mapping the curriculum, why it needs to be done, and what will be the outcome(s) from the mapping process (Doran, 1981; Richman, 2011; Yemm, 2013). The specificity of the change initiative is synonymous with the "unfreezing" stage referred to by Lewin (1951); the "how and the what" of the change emphasized by Fullan (1982, 1993a, 1993b, 2001, 2006, 2007), the "urgency" promoted by Kotter (2012) and the compelling reason to initiate the change, as described by Norman (2010).

The second criterion of the SMARTER mnemonic device that is applicable to the full-day workshop for the members of the Academic Council of this private high school involves the establishment of measurable objectives that can be easily ascertained and tracked. Both Fullan (2006, 2007) and Kotter (2012) recommended implementing a change initiative using measurable data, which is then followed up with the third criterion of the SMARTER mnemonic device, referring to achievable goals giving consideration to the availability of resources (Doran, 1981; Richman, 2011; Yemm, 2013) for achieving the initiative within the proposed timeframe. This third criterion is aligned with the school's use of curriculum mapping software as a resource through the contract with Rubicon Atlas and it is also aligned with the data from the participants' interview responses concerning the ease of using this curriculum mapping software.

As explained by Richman (2011), the "T" in SMARTER stands for the timeframe allotted for the initiative to be implemented within the organizational culture. This includes providing opportunities, as was the recommendation of Rogers (2003), for the faculty to be using the mapping process, not just as a planning tool of what will be taught, but also to map the respective course curriculum based on what was actually taught in the

classroom. The “E” and the “R” of the SMARTER acronym stands for “evaluate” and “re-evaluate” (Yemm, 2013). These two criteria will be discussed further, as they relate to the fourth module of this project of a professional development evaluation training plan, regarding expectations and accountability.

Additionally, research has shown that one of the most influential agentives of any change initiative involves learning from one’s peers (Barnard, Croft, Irons, Cuffe, Bandara, & Rowntree, 2011; Chester, 2012; Fullan, Cutress, & Kilcher, 2005; Gibon & Brooks, 2012; Roby, 2011). The review of this research informed the rationale for the first aspect of the four modules, described previously, of a full-day workshop for the members of the Academic Council with a representative from Rubicon Atlas. The first aspect of the Professional Development Evaluation Training Plan project for re-launching the implementation of curriculum mapping at this private high school consists of training the academic leaders, who in turn will mentor the rest of the faculty. As declared by Vaill and Testori (2012), “Access to a mentor provides faculty with an experienced colleague who can share his/her experiences of what works and [what] does not work” (p. 116). Furthermore, as declared by Danielson (2007), a group of academic leaders cannot only supply a variety and expertise of professional knowledge that is needed for sustaining the change initiative, but the active involvement of academic leaders is critical to the implementation of the change initiative because school administrators cannot devote the necessary time and energy to the change initiative all by themselves.

Therefore, after the members of the Academic Council have been trained-as-the-trainers, so to speak, this professional development evaluation training plan project

recommends that a one-day, mandatory re-training on the process of curriculum mapping using Rubicon Atlas software take place with the entire faculty a week before the back-to-school in-service for all school stakeholders in August. This one-day, mandatory re-training on the process of curriculum mapping using Rubicon Atlas software would ideally take place specifically during the first week of August, after the full-day workshop training for the twelve members of the Academic Council in late July.

The format for the one-day re-training of the faculty would consist of dividing the eight academic departments (English, Fine Arts, Language, Math, Physical Education, Religion, Science, Social Science) into two groups of four departments per group. For their respective one-day mandatory re-training session on the process of curriculum mapping, Group A would meet one day and group B would meet the next. The academic leaders will serve as the trainers for these re-training sessions, with three academic leaders each assigned and available to assist with the re-training session for one department.

The idea of "training-the-trainers", according to Pearce, Mann, Jones, van Buschbach, Olff, & Bisson (2012), "refers to a program or a course where individuals in a specific field receive training in a given subject and instruction on how to train, monitor, and supervise other individuals in the approach" (p. 216). Additionally, the compulsory conditions of the re-training, taking place on a one-day workshop, "ensures a shared understanding of the principles underpinning the program" (Chester, 2012, p. 96). The twelve members of the Academic Council of this private high school will be re-introducing the updated Rubicon Atlas software to the faculty, in addition to re-

emphasizing the vision, objectives, and outcomes for implementing the process of curriculum mapping.

Training the academic leaders is a pivotal target area of the framework for this professional development evaluation training plan project to relaunch the implementation of the process of curriculum mapping at this private high school. For it is through the coaching and persistence of these academic leaders that a major emerging theme from the data results can be addressed, that is, the issue teacher buy-in. This approach to re-launching the process of curriculum mapping limits teacher resistance and promotes buy-in because the initiative is not viewed as a top-down directive, but rather the implementation of curriculum mapping for curricular alignment is perceived as being a teacher-driven process (Johnson et al, 2006).

Selecting the Standards

A history lesson explaining the establishment of standards in education is not part of the scope of this study or the professional development evaluation training plan project, however, an explanation of what is meant by educational "standards" is required in order to address a second major emerging theme from the summary of data results and the rationale for the focus of the second module of this project. According to Reeves (2010), "one of the most important transitions in education in the past decade has been the embrace of academic standards as the prevailing method for evaluation of students" (p. 57). This educational transition represented "a seismic shift" away from the previous "presumption that the primary function of schools was to compare students to one another rather than to an objective standard" (Reeves, 2010, p. 57). A repeated theme

from participants' interview responses was regarding the selection and agreement on standards, while from my field-notes of observations of participants' curriculum mapping emerged a similar theme concerning the alignment of those selected standards to common assessments.

However, confusion and frustration can result when every teacher is working from a different set of standards. Furthermore, if this is the case, how is there then even a standard? Therefore, the target area for the second module of this professional development evaluation training plan project of relaunching the implementation of the process of curriculum mapping at this private high school involves determining which set of educational standards each academic department will be using to provide the blueprint on which the instructional foundation will be built (see Appendix A: Module 2- Selecting the Standards).

First, to clarify, educational standards do not by themselves define the curriculum, but rather the educational standards are synonymous with the desired learning outcomes (Guskey, 2014; Lam & Tsui, 2013), that is, what all students need to know and be able to do across all academic disciplines and all grade levels. In other words, the educational standards represent the destination, while the curriculum represents the road map for getting to that destination. Thus a curriculum map serves the purpose of "a working document that illustrates exactly what is taking place in classrooms" (Johnson et al., 2006) to reach the destination established by the standards or benchmarks (Guskey, 2014). Curriculum mapping does not merely represent the planning, or the "itinerary" for learning. The curriculum map is an authentic document of the operational curriculum, or

the actual "trip" taken (Johnson et al., 2006) for getting students to the desired destination or learning outcomes.

The lack of common academic standards can lead to unequal instructional coverage of content and/or skills horizontally, across the same academic discipline, or vertically, from one grade level to the next. This curricular misalignment creates unequal educational opportunities for many students (Doyle, 2012; Youngs, 2013). Selection of standards allows teachers of similar courses to make decisions about what content and skills will be the instructional focus. Every learning objective, every instructional lesson plan, every classroom activity, and every method of assessment needs to focus on helping all students achieve the identified standards and outcomes.

The use of standards in delineating educational outcomes is analogous to the notion of "standard of care" that is applied in medicine (Moffet & Moore, 2011; Youngs, 2013). As explained by Youngs (2013), the notion of standard of care in the medical profession refers to the guidelines for the required appropriate treatment "based on scientific evidence and collaboration between medical professionals involved in the treatment of a given condition" (p. 2). Doyle (2012) declared how the use of standards guiding instructional strategies allows for alignment across the curriculum and can lead to greater equality of educational opportunities for all students.

Stipulating that each of the academic departments selects which set of standards will be sanctioned allows for a guaranteed and viable curriculum (Marzano, 2003) designating what all students need to know and be able to do across all academic courses and all grade level. What a guaranteed and viable curriculum ensures is an aligned

curriculum (Marzano, 2003) in which all students who take any given course, such as Biology, Algebra 1, Spanish 1, or Health, will experience the same instructional content, skills, and essential knowledge, regardless of which teacher is teaching the course for that particular school year.

In order to address the target area for the second module of this professional development evaluation training plan project of relaunching the implementation of the process of curriculum mapping, specific time will be allotted during the mandatory one-day training with the academic leaders of this private high school for academic departments to discuss and select which set of educational standards each academic department will be using to provide the learning outcomes on which the curriculum will be aligned. It is important to address the selection of standards because the lack of a standard-driven curriculum aligned with common assessments inhibits and perhaps even prohibits any effort for teachers to communicate and work collaboratively in order to improve instruction (Youngs, 2013).

Developing Consensus Maps and Common Assessments

The third module of the framework for this professional development evaluation training plan project involves promoting a collaborative culture in order to develop consensus maps and common assessments, which will allow for the aligning of the intended curriculum, or the selected standards, to the assessed curriculum. This is another critical aspect of this project for re-launching the implementation of curriculum mapping at this private high school because it was a required mandate of the 2009-2010 AdvancEd Accreditation visit that needs to be addressed prior to when the school is re-visited in

2014-2015. Additionally, as stipulated by Kurz, Talapatra, and Roach (2012), if curricular alignment is not addressed, the validity of student test scores and grades becomes questionable, along with educational equity in terms of the expectations for what students know and are able to do.

The data summary of this study revealed the presence of a very independent culture at this private high school, with teachers closely their classroom doors and working in isolation. This type of school culture can fuel the resistance to change. In order to allow for each student to be academically successful, the school culture needs to be equitably as significant as the provided curriculum (Turan & Bektas, 2013). As explained by Doolittle, Sudeck and Rattigan (2008), when a school culture maintains the norms of privacy and isolation, effective teaching practices are seldom shared and any efforts to improve teaching and learning become distant or neglected.

Professional sharing of what you know in a collaborative culture with other people in your profession is a critical aspect of professional learning and the overall success of a professional development initiative. Peer-coaching has been recognized as a technique for allowing collaboration between teachers; wherein one teacher assists another teacher (or teachers) in developing and/or furthering a particular skill or technique. In this way, peer-coaching provides an environment of decreased anxiety and fear, allowing for teachers to be able to experiment with new skill sets, while also having an opportunity to reflect and refine their capabilities of utilizing the strategies of the implemented change initiative (Denton & Hasbrouck, 2009; Herrenkohl, Kawasaki, & DeWater, 2010; Nishimura, 2014).

Therefore, to promote a collaborative culture that will allow for the development of consensus maps and common assessments, the process of curriculum mapping must become a regularly incorporated part of the school culture. This means teachers need to have time allocated for meeting on a regular basis in order to make sure that the assessments for common courses are designed to appropriately assess students' achievement of the learning outcomes for those courses (Vaill & Testori, 2012). The participants' of this case study identified the specific allocation of time as being a major challenge to the implementation process.

Accordingly, the third module of the framework for this professional development evaluation training plan project, to address promoting a collaborative culture in order to develop consensus maps and common assessments, will require the weekly allotment of time for teachers to collaborate on building consensus maps using the Curriculum Mapping Template (see Appendix A- Module 3) available through the Rubicon Atlas curriculum mapping software. Currently, the weekly school schedule allows for an early dismissal of students on Tuesday and Thursday at 2:15 pm. The Tuesday afternoon early dismissal time is frequently designated as meeting time for Academic Council, Department Meetings, or Counseling Department meetings, so this allows for the Thursday early dismissal time to be allocated specifically as time for curriculum mapping.

I also recommend that during this Thursday early dismissal designated curriculum mapping time, teachers who teach a section of the same course be paired-up in a buddy-system of sorts in order to promote discussion, collaborative work on consensus maps

and the development of common assessments for that particular course. For example, in the Science Department of this private high school, there are two Chemistry teachers. These two teachers would therefore be curriculum mapping "buddies" every Thursday afternoon from 2:20-3:20 until evidence of a consensus map and common assessments can be demonstrated and shared with the entire faculty. Designating a weekly-allocated timeframe for professional development will help in the re-launching of the implementation of the curriculum mapping process for curricular alignment at this private high school by providing for opportunities for working collaboratively, for reflection, for practice, for support, and for follow-up.

Stating Expectations and Accountability

In reference back to the "E" and the "R" of the SMARTER acronym discussed previously, these letters stand for "evaluate" and "re-evaluate" respectively (Yemm, 2013). Kotter and Cohen (2002) discussed how a central challenge to changing an organizational culture, such as that of a school, is "changing people's behavior" (p. 2). Accountability involves the measurability of an objective statement concerning the progress, or lack thereof, with regards to the stated expectations of the professional development (Reeves, 2010). Accountability and expectations must include specifics regarding the evaluation plans for monitoring the progress of the implementation process.

Evaluation and re-evaluation will be a major part of the fourth module, stating specific expectations and aspects of accountability, for the framework of this professional development evaluation training plan project. As proclaimed by Herrington (2013), "Expectations of what one is able to achieve and what behaviors are expected to take

place make all the difference (p. 50). A key part to expectations and accountability involves providing examples of exemplar maps to faculty along with a rubric for assessing a quality map (see Appendix A: Module 4- Expectations and Accountability).

As stated by Ylimaki and McClain (2009), "Education is a different world now, it's all about accountability now. That's not entirely a bad thing because it's forced us to be very explicit about what we're teaching and how children are performing (p. 13). This aligns with the process of curriculum mapping in terms of the use of standards or benchmarks and the development of common assessments.

Herrington (2013) also emphasized how setting the tone for "what is expected around here" within the school culture is pivotal to the success of the implementation of curriculum mapping for curricular alignment and developing common assessments. "There must be a daily awareness by all team members of what is considered acceptable behavior and performance and what is not" (Herrington, 2013, p. 54). Expectations and accountability were additional emergent themes revealed by the data results for this case study. Therefore, supported by Johnson et al. (2006) and strongly encouraged by this researcher, it is recommended that as the implementation of the process of curriculum mapping continues at this private high school and teachers are provided weekly allocated time for working collaboratively, the academic leaders identify specified criteria for providing evidence of the mapping work they have conducted. Also included within the established expectations and accountability would be guidelines for the faculty to produce a consensus map and common assessments, which can then be demonstrated and shared with the entire faculty. If we want to provide the opportunity for all of our

students to be academically successful, we need to raise the expectations to which the teachers are held.

According to Lucilio (2009), “The noblest aim of all professional development is to improve teaching in the classroom so that all students achieve to their full potential” (p. 74). Moreover, as recognized by Herrenkohl et al. (2010), professional development and learning is the tool that tethers together the implementation of a change initiative, such as the utilization of curriculum mapping for curricular alignment, and the inevitable dragons representing the resistance to that change initiative.

Implementation

Potential Resources and Existing Supports

The implementation of this professional development evaluation training plan project of four modules spotlighting target areas, based on the data results, to relaunch the utilization of the process of curriculum mapping within the school culture will require the needed resource and existing support of a Rubicon Atlas representative being available to come to the high school and conduct the full day workshop training for the academic leaders. An additional required resource is in terms of readily accessing the Common Core State Standards for English and Math, the Next Generation Science Standards and the various professional standards for the remaining academic disciplines. The support for accessing standards exists as part of the curriculum mapping software provided by Rubicon Atlas. In order to provide weekly collaborative time, the school principal, with support from the school board, needs to give approval for allocating the Thursday early

dismissal time as curriculum mapping time. Lastly, the academic leaders of this private high school will need to establish the criteria of expectations and accountability.

Potential Barriers

The implementation of this professional development evaluation training plan project of four modules spotlighting target areas, based on the data results, to re-launch the utilization of the process of curriculum mapping within the school culture also must address the potential barrier of the aforementioned resources and supports not being available, accessible, approved, or established respectively. However, it is my opinion that the greatest potential barrier to the implementation of this framework for a professional development evaluation training plan project to relaunch the utilization of the process of curriculum mapping within the school continues to be related to teacher buy-in. As stated by Harris (2011), "if those on the receiving end of it are not clear about the purpose for the change and have no reason to support it" (p. 160) then a derailment of the change process may be encountered. An additional potential barrier to the re-launching of the utilization of curriculum mapping at this private high school may also come in the form of being sidetracked once again by the multiple initiatives that are piled on the plates of the hard-working teachers at this private high school.

Proposed Timeframe for Implementation

Upon completion of this doctoral project study, a copy of this case study examining the implementation of curriculum mapping will be shared with the Administrative Team of this private high school. Additionally, due to the 2014-2015 expected AdvancEd Accreditation visit, there is an abbreviated and compressed

timeframe for carrying out the plan for this project of a professional development evaluation training plan with modules for relaunching the implementation of the process of curriculum mapping for the purpose of curricular alignment and the development of common assessments. Implementation of this project's framework would begin the last week of July, 2014 and conclude before the AdvancEd Accreditation visit to this private high school in April, 2015 (see Appendix A).

My Roles and Responsibilities as the Researcher of this Study

To reiterate, one of the responsibilities I have in my role as a researcher and as a student in the Ed.D program for Curriculum, Instruction, and Assessment at Walden University, is to share the research findings of this case study. Therefore, to recapitulate what was stated earlier in the proposed timeframe for implementation, upon completion of this doctoral project study, a copy of this case study examining the implementation of curriculum mapping would be shared with the Administrative Team of this private high school. Also, if asked by the school's Administrative Team to discuss or further communicate the research findings of this case study through a formal presentation or an informal conversation, I have the responsibility to willingly oblige the request. Additionally, if any part of the project framework were to be implemented within the school culture, I also have the responsibility to offer my support and to serve the school community in whatever role I may be needed.

Project Evaluation

Type of Evaluation and Justification

My plan for evaluating this project of a framework plan for relaunching the utilization of the process of curriculum mapping within the school culture is that of a formative evaluation plan. As the researcher behind this professional development evaluation training plan with modules project to relaunch the utilization of the process of curriculum mapping at this private high school, I selected a formative evaluation plan over a summative evaluation plan or an outcomes-based evaluation plan because the academic leaders of this high school and myself, would want to assess the on-going process of implementing the utilization of curriculum mapping for the purpose of curricular alignment, in order to be able to adjust the targeted aspects of the four modules of the professional development evaluation training plan (retraining of the faculty, selection of standards, development of consensus maps and common assessments through collaboration, and expectations and accountability) as the timeline of this project progresses.

A summative evaluation plan or an outcomes-based evaluation plan is not applicable to this project evaluation plan because curriculum mapping and its evaluation is an on-going, continuous process that will not conclude with the AdvancED Accreditation visit in April, 2015. The evaluation of the curriculum of this private high school needs to be scrutinized and aimed towards continuous improvement and alignment in order to best address the needs of our students (Schlechty, 2009). Frequent evaluation of professional development is required in order to demonstrate substantive gains or lack

of progress towards the deep-seated implementation of the curriculum mapping initiative for curricular alignment.

Formative evaluation can be significant for diagnosing strengths and weaknesses of this project for a professional development evaluation training plan with modules and for providing an on-going feedback loop for monitoring progress and identifying any aspects that may not be being adequately or fully addressed in the framework of this project that perhaps were not disclosed by the data analysis and within the summary of results (Burns, 2010; Han, Hu, & Li, 2013. Formative evaluation can provide the continuous feedback that is necessary for discerning recommendations regarding remediating problematic aspects of the framework for this professional development evaluation training plan project of relaunching the implementation of curriculum mapping at this private high school.

Outcomes and Performance Measures

One outcome for the formative evaluation feedback is to improve this on-going professional development evaluation training plan with modules project geared towards relaunching the implementation of curriculum mapping within the school culture by sharing feedback information with the faculty in a spirit of congeniality and collegiality (Bogdan & Biklen, 2007). The specific performance measures would include a follow-up questionnaire and reflections for the full day, re-training workshops using Rubicon Atlas curriculum mapping software (see Appendix A- Evaluation Instrument I).

An additional performance measure would include a faculty self-evaluation questionnaire and reflections (see Appendix A- Evaluation Instrument II) to identify and

discuss any issues that may arise (Lodico et al., 2010) within the implementation of the professional development evaluation training plan project for relaunching the utilization of curriculum mapping. This faculty self-evaluation questionnaire and reflections evaluation instrument would be completed once a month during the allotted early time for collaboration and building of consensus maps and common assessments.

If curriculum mapping is to be effective, there must be a substantial record for what was done and there must also be evidence that the process of mapping is being utilized. Evidence can be determined by asking if school personnel are making direct contributions to the mapping of course curriculum and the data collected can provide proof that the intentions of the implemented change are being met (Wiles, 2009). Therefore, these outcomes and performance measures can inform the progress of the professional development evaluation training plan project with modules for relaunching the utilization of curriculum mapping. Perhaps, more importantly, these outcomes and performance measures can provide essential data for informing and guiding decision-making regarding additional or future professional development initiatives at this private high school.

Overall Evaluation Goal

Wiles (2009) declared how, “Evaluation can serve as a powerful tool for making things happen” (p. 101). Therefore, an overall evaluation goal is to use data to inform our decision-making regarding next steps in determining how successfully the process of curriculum mapping has been implemented and utilized within the school culture. Overall evaluation will help to determine what is actually taking place in the classrooms. As

explained by Wiles (2009), "without a nuts-and-bolts look at what is actually happening in the classrooms of a school" (p. 84) the curriculum, instruction, and assessment cannot be aligned.

Instead of the stagnant scope and sequence of course objectives and outcomes that might be found in a binder collecting dust on a shelf in an office somewhere in the school building, a curriculum map is a more fluid and dynamic document. A curriculum map changes as teachers modify their instruction and assessment to meet the needs of the students currently in their classrooms because a curriculum map provides evidence for what was intended and what was achieved (Jacobs, 2010; Johnson et al., 2006; Lam & Tsui, 2013; Roach et al., 2008). Discrepancies between the intended curriculum and the implemented or achieved curriculum impacts what Marzano (2003) referred to as opportunities to learn within a guaranteed and viable curriculum, which can hinder the learning achievement for many students.

Project Social Change Implications

Local Community

The professional development evaluation training plan with modules project that resulted from this research study provides a framework plan for the relaunching of the implementation of the process of curriculum mapping. This project addresses the needs of the learners at this private high school by allowing for the successful implementation of curriculum mapping in order to have curricular alignment and the development of common assessments. Curriculum mapping is important for this school community because it serves to eliminate the possibilities for curricular gaps and repetitions between

and within various grade levels. Such gaps and repetitions can considerably impact overall student achievement. This is supported by Fullan et al. (2005) in declaring how the moral purpose of education at the local level needs to involve educators who are committed to raising the bar for students and closing the curricular gaps so that all students can be academically successful. Curriculum alignment between the course content and skills, the instructional strategies and the assessments promotes the success for all the students of this private high school located in a suburb of Chicago.

Far-Reaching

The far-reaching social change implication of this professional development evaluation training plan with modules project to relaunch the utilization of the process of curriculum mapping at this private high school is to furnish a response to the major challenge facing educators today of matching the diverse learning needs of our students to our ever-changing world. This research study project presented suggestions, ideas, and strategies to educators to help provide a viable curriculum for improving teaching and student learning that would enable the academic success of all learners. I think the far-reaching social change implications of this study project are best captured in the words of Fullan et al. (2005), in proclaiming how "Moral purpose in educational change is about improving society through improving educational systems and thus the learning of all citizens" (p. 54). As 21st century educators, this is the obligation we have to the students in our classrooms.

Conclusion

There were multiple explanations and challenges as to why the implementation of the process of curriculum mapping at this private high school derailed. Among these, as determined by the data summary, was the lack of teacher buy-in and collaboration time, the lack of agreed upon academic departmental standards, and the lack of accountability for constructing one's maps.

This research study project of a new approach to changing the school culture in order to implement the process of curriculum mapping at this private high school was informed by the literature review and the triangulation of the data from Section 2: The Methodology. Relaunching the change initiative of the implementation of the process of curriculum mapping for curricular alignment and the development of common assessments at this private high school depends on the specification of a clearly defined vision of why we are mapping in the first place. Additionally, "Allowing the wrong things to happen in the organization for too long can kill its culture. The leader[s] must be proactive and courageous to bring about change" (Herrington, 2013, p. 55). For this reason, leadership is imperative.

Section 4 of this study will reflect and conclude on the strengths and limitations of addressing the problem centered on examining the strategies that were used to implement the process of curriculum mapping within the school culture of a private high school for the purpose of curricular alignment and the development of common assessments. Further reflections and conclusion in Section 4 will be in regards to what I learned overall as a leader and as a scholar practitioner.

Section 4: Reflections and Conclusions

Introduction

The final section of this research study, concerning the implementation of curricular mapping for the purpose of curricular alignment and the development of common assessments, begins with a discussion of the strengths of the professional development evaluation training plan to relaunch curriculum mapping at this private high school. This is followed by various recommendations for addressing, or at least minimizing, the limitations of the project. This section will also include my reflections about what I learned regarding leadership and change, scholarship and myself as a scholar practitioner, in addition to reflections regarding project development and myself as a project developer. The final section of this study concludes with an overall reflection on the project's potential impact on social change and my recommendations for possible directions for future research regarding curriculum mapping within a school culture to address the problem of aligning the expected curriculum to the actual curriculum and to common assessment to ensure the academic success of all students.

Project Strengths

A major strength of the project to address the problem presented in this study, which centered on examining the strategies used to implement curriculum mapping within a school for the purpose of curricular alignment and the development of common assessments, revolved around using data for decision-making purposes. This project was informed in accordance with the literature reviewed and the triangulation of the data presented in Section 2. Using data to construct the framework of a plan for the proposed

project to relaunch curriculum mapping for curricular alignment is grounded in compelling evidence, rather than just mere speculation, regarding what steps to take next (Love, 2009).

Another strength of this project is the focus on fostering the collaborative aspect of implementing curriculum mapping within the school culture. This important aspect was lacking in the initial implementation process, but it is such a crucial aspect for incorporating change within the school culture. As declared by Turan and Bektas (2013), "creation of a common culture in educational organizations… depends first on the presence and cohesiveness of an interacting group of individuals" (p. 155). Addressing the collaborative aspect of the re-launching project increases the likelihood of the actualization of the goals for using curriculum mapping at this private high school.

A third strength that I can identify for this professional development evaluation training plan to relaunch curriculum mapping at this private high school is the incorporation and attention to the aspect of time. Time was an aspect identified by multiple change theorists and educational researchers as being a primary factor for successfully implementing any process of change within the culture of a school (Carter, 2008; Jacobs, 2004; Jacobs & Johnson, 2009; Kallick & Colosimo, 2009; Kotter, 2012; Norman, 2010; Rodgers, 2003; Schifalacqua et al., 2009). Designating a specific time each week for collaborative and consensus mapping work also increases the likelihood for the realization of the project's goals.

Recommendations for Remediation of Limitations

A primary limitation for this project involves the nature of change itself. In order to implement the use of curriculum mapping within the school culture, there needs to be more than just a congenial culture, there must also be a conscious effort from the school leadership to provide consistent time set aside for collegiality. “Good leaders have the power to change organizations, while better leaders have the power to change people” (Turan & Bektas, 2013, p. 157). Changing the current isolated and independent school culture into a culture of collaboration will be a challenge, and this process of change will depend on strong leadership from the members of the Administrative Team.

A second limitation of this research study was the small sample size of only 10 participants because this small sample size influences the matter of generalizability. In order to rectify this limitation, I would want to survey the entire faculty of this private high school, or I would consider conducting a multisite case study of several schools currently in the implementation phase of a cultural change such as the process of curriculum mapping. Increasing the number of participants, either by using a school-wide survey or by incorporating the methodology of a multisite case study, would enhance the external validity and generalizability of the research findings (Merriam, 2009).

A third limitation to this overall study and the development of a project in response to the data results is the simple fact that this was my first experience with conducting and transcribing participant interviews and my first venture into conducting qualitative research in general. The action for remedying this limitation is to gain more

experience with this type of research, through either reviewing the literature or conducting more qualitative research in the future.

Scholarship

As mentioned in the previous section on recommendations for remediation of limitations of this study, this was my first venture into conducting qualitative research. My background as a Biology teacher and a natural scientist has allowed me to hone my observational skills, but my experience was mainly with quantitative data and statistical analysis. I was more accustomed to data results that demonstrated cause and effect between an independent variable and a dependent variable. Through this qualitative research study, I have been able to examine how the faculty of this private high school perceived their experiences and attributed meaning to those experiences (Merriam, 2009) regarding the implementation strategies used to incorporate curriculum mapping within the school culture.

Another facet of scholarship for me from this research study is in the areas of change theory and curriculum mapping for curricular alignment. I now have a clear understanding of how "change will occur more smoothly if those affected by the change know what is to happen" (Wiles, 2009, p. 3), and I have a better understanding of how curriculum mapping for curricular alignment can happen. During an interview, one of the participants in this study commented that nobody in the school really knew enough about curriculum mapping in the first place. I think that I now "know enough."

Project Development and Evaluation

During the data collection, especially during the interviews with the 10 participants of this study, it began to become obvious to me that the implementation of curriculum mapping within the school culture had derailed. A derailment of the process of change became even more evident upon triangulation of the data results. The plan for the project for relaunching the implementation of curriculum mapping within the school culture of this private high school to get back on track with this change initiative developed from the data results in conjunction with the theoretical framework of change theory.

The idea of a re-launching project supported by a formative evaluation plan seemed to me to be the most logical next step. This was because a formative evaluation plan of the re-launching project would allow for ongoing feedback regarding the progress of this project's implementation (Burns, 2010). Additionally, a formative evaluation plan would also allow for the identification of any factors that may not have been flushed out from the data analysis and need to be immediately addressed with the re-launching effort (Burns, 2010; Han, Hu, & Li, 2013). Furthermore, the professional development evaluation training plan with modules at this private high school, supported by a formative evaluation plan, will assist in meeting the re-accreditation expectations when the AdvancEd visit is conducted in the second semester of the 2014-2015 school year.

Additionally, however, a successful project to relaunch the implementation of the process of curriculum mapping within the school culture will also promote the change of an isolated, independent teaching environment into a collaborative educational

community. Utilizing curriculum mapping for curricular alignment and the development of common assessments helps "to ensure that all students have access to a uniform quality of instruction" (Schlechty, 2009, p. 5). When all is said and done, this is ultimately the bottom line for curriculum mapping and curricular alignment.

Leadership and Change

What I learned from conducting the research potion of this case study and the follow-up project in regards to leadership and change are that within a school culture, leadership and change must go hand-in-hand together if either are to be successful. What I specifically learned about leadership and change is how the success of any cultural or organizational change within a school is dependent on the implementation process of that change, which in-turn is influenced by the school leadership.

People, especially teachers, do not embrace change. Therefore, I have concluded that it is actually the implementation process itself that is of utmost importance when trying to introduce a new initiative, such as curriculum mapping, within a school culture. Guskey (2014) referred to this caveat as "*Finis Origine Pendet"* or "The End Depends upon the Beginning" (p. 11). In other words, I have come to learn that it is what is done during the implementation of the new initiative that will determine if it is a successful change or not. In order for implementation to be successful within a school culture, I have determined the inclusiveness of the following factors to be of utmost importance: a team leadership effort, the communication of salient information using common language, dedication of time for the initiative, opportunities for collegiality, and feedback on what is working or what might need to be adjusted or changed completely.

When implementing an innovative change within a school culture, the school leadership must be a team approach, rather than just one or two individuals, in order to delegate responsibilities and foster teacher buy-in or ownership. It is also during the implementation of the change that is when the school leadership must clearly communicate "the what", "the how", and "the why" of the new initiative using a common, understood language, rather than the latest educational jargon.

I have also determined the importance of dedicating a specific and regular allocation of time towards the change initiative. "There are simply too many competing priorities in schools for an innovation to thrive without persistent, overt support (Perkins & Reese, 2014, p. 45). Hard-working, dedicated teachers are already short on time. If a newly implemented initiative is to become an embedded part of the school culture, teachers need specific training time, along with time dedicated to practicing and applying the new initiative.

Finally, in regards to leadership and change, I have also learned the importance of opportunities for collegiality and in providing feedback on what is working or what might need to be adjusted or changed completely. Teachers should be learning from each other, veterans and "rookies" alike, and sharing their perspectives and experiences, not only in regards to the newly implemented initiative, but with respect to teaching and learning in general.

Analysis of Self as Scholar-Practitioner

I have combined the analyses of self as scholar and as practitioner under the single section heading of "Analysis of Self as Scholar-Practitioner" because in addition to

promoting positive social change, becoming and conducting oneself as a scholar-practitioner is a key component of the mission of Walden University. I believe that becoming and conducting myself as a scholar-practitioner is one of the outcomes of my journey towards earning a Doctor of Education degree. Being a scholar-practitioner, to me, means working to develop innovative solutions to educational problems through the integration of research concerning theory and best practices. It also means making connections to my everyday life as a classroom educator and as a school leader. For me, being a scholar-practitioner additionally means conducting and reporting research in an ethically, professional manner and striving to be a positive influence, not just in my own local school community, but to the overall field of education as well. My reflection of the analysis of myself on becoming a scholar-practitioner includes an understanding that I have an obligation to be an agent for positive social change.

Analysis of Self as Project Developer

Reflecting on what I learned about myself as a project developer, I now have a clearer understanding of the importance of creating a team approach within an atmosphere that is both convivial and collegial. I have also come to recognize the importance of a having a plan for the implementation process of the project's initiative, along with a plan for repeated feedback and evaluation as the project progresses. As a project developer, if possible, it is critical to focus on the implementation of a single change or initiative at a time. Too many changes all at once within a school culture only leads to increased levels of anxiety amongst the faculty and an overall dismissal of acceptance of any change whatsoever.

Additionally, as the developer of a project resulting from my qualitative research, I have come to realize and appreciate the importance of having excellent organizational skills and I have further developed my verbal and written communication skills. Working on the development of this project, I was able to put into practice the ability to envision the inter-connected and interdependent pieces of the completed project, while also being able to work on and focus on the independent parts respectively. Putting my newfound and increased knowledge and skills into practice led to the resulting project development of a framework plan for re-launching the implementation of the process of curriculum mapping for curricular alignment within the school culture.

The Project's Potential Impact on Social Change

An overall reflection on the importance of my research and the resulting project in regards to what was learned revolves around the criticalness of curriculum alignment for teaching and the opportunity of success for all learners. As I stated in the introduction to Section 1 of this research study, one of our responsibilities as educators in the 21st century is to revisit and refine school curriculums, instructional practices, and assessments in order to best meet the changing and developing needs of all of our students. I think the implementation of the process of curriculum mapping within the school culture supports educators in addressing this responsibility.

The potential impact on social change at the local level of what was learned from my research and the resulting project is in regards to addressing the needs of the learners at this private high school by allowing for the framework of a plan to re-launch the successful implementation of curriculum mapping in order to have curricular alignment

and the development of common assessments. As stated previously in Section 1, the successful implementation of the process of curriculum mapping is paramount for this school community because the process of curriculum mapping provides a tool and a means for eliminating curricular gaps and/or repetitions between and within various grade levels, which may in the long run have a lasting impact on a student's overall learning and academic success.

The impact on a far-more-reaching level of this case study and the resulting project for re-launching the implementation of the process of curriculum mapping for curricular alignment within a school culture is to possibly contribute to the educational literature regarding the gap in terms of *how* to implement the process of curriculum mapping in order for the process and tool of mapping to become an integrated part of a school culture. An additional far-reaching impact on social change is the potential for this research to inform or influence the successful implementation of the process of curriculum mapping within a school culture seeking to align their curriculum to eliminate alignment deficiencies that may be affecting the learning and achievement of the students in their classrooms. Teaching impacts individual students, but teaching also has a collective impact on society as a whole when our students become business leaders, lawmakers, and adult citizens of the world.

Implication, Application, and Direction for Future Research

The importance of this study based on what was learned and the implication, application, and direction for future research is derived from the qualitative research data results that informed the development of a framework plan for relaunching the

implementation of the process of curriculum mapping for curricular alignment for ensuring success of all learners. Implication, application, and direction for future research would be centered on the four aspects derived from the case study research, that is, the training of academic leaders, the selection of learning standards, promoting a collaborative culture for the development of common assessments, and maintaining expectations and accountability within a school culture during the implementation of a change initiative.

My specific recommendation regarding a potential direction for future research regarding the implementation of the process of curriculum mapping within a school culture, or any change initiative for-that-matter, is to have a quantitative component along with a continued qualitative investigation. My suggestion for future research regarding the topic of implementing the process of curriculum mapping for curricular alignment within a school culture is to conduct an explanatory sequential mixed-methods research design, wherein quantitative data would be collected first, followed by the collection of qualitative data, to assist in providing an explanation for the quantitative results (Creswell, 2012).

For example, to address the local problem that prompted this case study regarding the necessity for a private high school in a suburb of Chicago to implement the process of curriculum mapping within the school culture in order to better align the expected curriculum to the actual curriculum, an explanatory sequential mixed-methods research study would first collect quantitative data, such as ACT test results, and then conduct a data analysis of student responses to specific test questions. To elaborate further on this

example, if student test results for the science section of the ACT decreased dramatically from one year to the next, it would then be prudent to use an instrument for the collection of qualitative data in order to garner greater insight as to what was missing in the science curriculum that resulted in the decreased science test scores on the ACT. Looking at the specific test questions that students had difficulty with would allow teachers to identify the specific curricular gaps that needed to be addressed. This could only be accomplished if there was a process in place for mapping the science curriculum.

By conducting an explanatory sequential mixed-methods research design for examining the implementation of curriculum mapping at this private high school in a suburb of Chicago, science teachers, as well as the entire faculty, would have data results providing the possible impetus for successful implementation of the curriculum mapping initiative for aligning the expected curriculum to the actual curriculum and to common assessments to assist in ensuring educational equity and academic success for all learners.

Conclusion

The concluding section of this research study concerning the implementation of curricular mapping for the purpose of curricular alignment and the development of common assessments included an identification of the project's strengths as being data driven decision-making and the acknowledgment of the necessity of time and opportunity for collaboration. Suggestions for remediating project limitations included recognizing the uneasiness and anxiety-producing nature of the implementation of change itself, more opportunity for additional experience conducting qualitative research and expanding the sample size of this study for generalizability purposes.

This final section also included consideration for what I learned with respect to leadership and change and the importance of the implementation process for addressing leadership, time allocation, collegiality, and feedback. This was followed by my personal reflections concerning scholarship and my roles and responsibilities in becoming a scholar-practitioner, in addition to my reflections regarding project development and my continued learning and growth as a project developer.

The final section of this study concluded with an overall reflection on the project's potential impact on social change, both at the local level of this private high school and on a more far-reaching level in the field of education and student achievement. Lastly, this final section closed with an incorporation of my recommendation for a possible direction for future research regarding the implementation of the process of curriculum mapping within a school culture for addressing the problem of aligning the expected curriculum to the actual curriculum and to common assessment to ensure the academic success of all students.

References

Abilock, D., Harada, V., & Fontichiaro, K. (2013). Growing schools: Effective professional development. *Teacher Librarian*, *41*(1), 8-13.

Barnard, A., Croft, W., Irons, R., Cuffe, N., Bandara, W., & Rowntree, P. (2011). Peer partnership to enhance scholarship of teaching: A case study. *Higher Education Research & Development*, *30*, 435-448.

Abraham Lincoln Online. (2013). "House divided" speech by Abraham Lincoln. Retrieved from http://www.abrahamlincolnonline.org/lincoln/speeches/house.htm

Bester, M. M., & Scholtz, D. D. (2012). Mapping our way to coherence, alignment and responsiveness. *South African Journal of Higher Education*, *26*(2), 282-299.

Blumberg, P. (2009). Maximizing learning through course alignment and experience with different types of knowledge. *Innovative Higher Education*, *34*(2), 93-103.

Bogdan, R., & Biklen, S. (2007). *Qualitative research for education: An introduction to theories and methods*. Boston, MA: Pearson Education.

Bols, A., & Freeman, R. (2011). Engaging students in shaping their curriculum. *Educational Development*, *12*(2), 5-9.

Bourke, R., & McGee, A. (2012). The challenge of change: Using activity theory to understand a cultural innovation. *Journal of Educational Change*, *13*(2), 217-233.

Brown, A. A., & Green, R. (2014). Practices used by nationally blue ribbon award winning principals to improve student achievement in high-poverty schools. *National Forum of Applied Educational Research Journal*, *27*(1/2), 2-18.

Buchanan, M. (2009). The spiritual dimension and curriculum change. *International*

Journal of Children's Spirituality, *14*(4), 385-394.

Burns, M. (2010). Formative evaluation in school psychology: Fully informing the instructional process. *School Psychology Forum: Research in Practice*, *4*(1), 22-23.

Carter, E. (2008). Successful change requires more than change management. *Journal For Quality & Participation*, *31*(1), 20-23.

Caruth, G.D., & Caruth, D. (2013). Understanding resistance to change: A challenge for universities. *Turkish Online Journal of Distance Education*, *14*(2), 12-21.

Chester, A. (2012). Peer partnerships in teaching: Evaluation of a voluntary model of professional development in tertiary education. *Journal of the Scholarship of Teaching and Learning*, *12*(2), 94-108.

Cline, S. (2013, May 1). The other symbol of George W. Bush's legacy [Blog post]. Retrieved from http://www.usnews.com/news/blogs/press-past/2013/05/01/the-other-symbol-of-george-w-bushs-legacy

Costa, A., & Kallick, B. (2010). It takes some getting used to: Rethinking curriculum for the 21st century. *Curriculum 21- Essential education for a changing world*. Alexandria, VA: Association for Supervision and Curriculum Development.

Cram, H.G. (2011). De-mystifying accreditation: What are the basics? *International Educator, 26*(1), 11-12.

Creswell, J.W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Boston, MA: Pearson Education.

Creswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five*

approaches. Thousand Oaks, CA: Sage.

Cuevas, N.M., Matveev, A.G., & Feit, M.D. (2009), Curriculum mapping: An approach to study coherence of program curricula. *Department Chair*, *20*(1), 23-26.

Danielson, C. (2007). The many faces of leadership. *Educational Leadership*, *65*(1), 14-19.

Dee, T., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and Management*, *30*(3), 418–46.

Deenmamode, L.C. (2012). Values at the heart of school leadership: An investigation of the impact of school culture on school leadership. *The International Journal of Learning, 18*(7), 305-312.

Denton, C.A., & Hasbrouck, J. (2009). A description of instructional coaching and its relationship to consultation. *Journal of Educational and Psychological Consultation*, *19*(1), 150-175.

DePorter, B., & Rearden, M. (2013). Coordinating positive school culture: Three steps to balance vision and practice. National Association of Elementary School Principals. Retrieved from https://www.naesp.org/sites/default/files

Dickens, C. (1859). *A tale of two cities*. London, UK: Chapman and Hall.

Dillon, J. T. (2009). The questions of curriculum. *Journal of Curriculum Studies*, *41*(3).

Doolittle, G., Sudeck, M., & Rattigan, P. (2008). Creating professional learning communities: The work of professional development schools. *Theory Into Practice*, *47*(4), 303-310.

Doran, G. (1981). There's a S.M.A.R.T. way to management's goals and objectives.

Management Review, *70*(11), 35-36.

Doyle, K. (2012). Powerful alignment: Building consensus around the Common Core State Standards. *Language and Literacy Spectrum*, *22*, 7-23.

Esteves, M., Fonseca, B., Morgado, L., & Martins, P. (2011). Improving teaching and learning of computer programming through the use of the Second Life virtual world. *British Journal Of Educational Technology*, *42*(4), 624-637.

Farr, S. (2011). Leadership, not magic. *Educational Leadership*, *68*(4), 28-33.

Fullan, M. (1982). *The meaning of educational change.* New York, NY: Teachers College Press.

Fullan, M. (1993a). The complexity of the change process. *Change forces: Probing the depth of educational reform*. London, UK: Falmer Press.

Fullan, M. (1993b). Why teachers must become change agents. *The Professional Teacher*, *50*(6), 12-17.

Fullan, M. (2001). *Leading in a culture of change.* San Francisco, CA: Jossey-Bass.

Fullan, M. (2006). Change theory: A force for school improvement. Center for Strategic Education Seminar Series Paper No. 157. Retrieved from http://www.michaelfullan.ca/

Fullan, M. (2007). Understanding change. *The Jossey-Bass Reader on Educational Leadership*. San Francisco, CA: Jossey-Bass.

Fullan, M., Cutress, C., Kilcher, A. (2005). Eight forces for leaders of change. *Journal of Staff Development*, *26*, 54-64.

Fullan, M., Hill, P., & Crevola, C. (2006). *Breakthrough*. Thousand Oaks, CA: Sage

Publications.

Gesme, D., & Wiseman, M. (2010). How to implement change in practice. *Journal of Oncology Practice*, *6*(5), 257-259.

Ghavifekr, S., Afshari, M., Siraj, S., & Bin Abdul Razak, A. (2013). Vision- driven strategies and policies for managing educational systemic change: A qualitative analysis. *Australian Journal Of Basic & Applied Sciences*, *7*(4), 333-341.

Gibon, S., & Brooks, C. (2012). Teachers' perspectives on the effectiveness of a locally planned professional development program for implementing a new curriculum. *Teacher Development*, *16*(1), 1-23.

Gillham, B., (2010). *Case study research methods*. London, UK: Continuum International Publishing.

Guskey, T. (2014). Planning professional learning. *Educational Leadership*, *71*(8), 11-16.

Hale, J., & Dunlap, R. (2010). *An educational leader's guide to curriculum mapping: Creating and sustaining collaborative cultures*. Thousand Oaks, CA: Sage.

Han, Y., Hu, M., & Li, L. (2013). Formative evaluation of the no-fee teacher education program from the students' standpoint. *Chinese Education and Society*, *46*(2-3), 100-118.

Harris, A. (2011). Reforming systems: Realizing the fourth way. *Journal of Educational Change*, *12*, 159-171.

Harvey, M., & Baumann, C. (2012). Using student reflections to explore curriculum alignment. *Asian Social Science*, *8*(14), 9-18.

Herrenkohl, L.R., Kawasaki, K., & DeWater, L.S. (2010). Inside and outside: Teacher-

researcher collaboration. *New Educator*, *6*(1), 74-92.

Herrington, D. (2013). Leader as mentor and coach: Creating a culture of excellence and Dignity. *National Forum of Educational Administration and Supervision Journal*, *30*(3), 50-57.

Hewitt-Taylor, J. (2013). Planning successful change incorporating processes and people. *Nursing Standard*, *27*(38), 35-40.

Holcomb, E. (2004). *Getting excited about data. Combining people, passion, and proof to maximize student achievement.* Thousand Oaks, CA: Corwin Press.

Ice, P. P., Burgess, M. M., Beals, J. J., & Staley, J. J. (2012). Aligning curriculum and evidencing learning effectiveness using semantic mapping of learning assets. *International Journal Of Emerging Technologies In Learning*, *7*(2), 26-31.

Individuals With Disabilities Education Act, 20 U.S.C. § 1400 (2004).

Jackson, S. A., & Lunenburg, F. C. (2010). School performance indicators, accountability ratings, and student achievement. *American Secondary Education*, *39*(1), 27-44.

Jacobs, H.H., & Johnson, A. (2009). *Curriculum mapping planner- Templates, tools and resources for effective professional development*. Alexandria, VA: Association for Supervision and Curriculum Development.

Jacobs, H.H. (1997). *Mapping the big picture- Integrating curriculum and assessment K-12.* Alexandria, VA: Association for Supervision and Curriculum Development.

Jacobs, H.H. (2004). *Getting results with curriculum mapping*. Alexandria, VA: Association for Supervision and Curriculum Development.

Jacobs, H.H. (2010). *Curriculum 21- Essential Education for a Changing World*.

Alexandria, VA: Association for Supervision and Curriculum Development.

Johnson, A., Carlile, C., Checkly, J., & Baker, R. (2006). *Getting results with curriculum mapping: A facilitator's guide.* Alexandria, VA: Association for Supervision and Curriculum Development. Retrieved from http://www.ascd.org/ASCD/pdf/siteASCD/video/GettingResultsCurriculumMapping.pdf

Kallick, B., & Colosimo, J. (2009). *Using curriculum mapping and assessment data to improve learning.* Thousand Oaks, CA: Corwin Press.

Kelting-Gibson, L. (2013). Analysis of 100 years of curriculum designs. *International Journal of Instruction*, *6*(1), 39-58.

Killion, J., & Roy, P. (2009). *Becoming a learning school.* Oxford, OH: National Staff Development Council.

King, S., & Watson, A. (2010). Teaching excellence for all our students. *Theory Into Practice*, *49*(3), 175-184.

Knowles, P. (2010). Conducting an academic audit. *The School Administrator*, *10*(67), 30-32.

Kotter, J., & Cohen, D. (2002). *The heart of change: Real-life stories of how people change their organizations.* Boston, MA: Harvard Business Press.

Kotter, J. (2012). *Leading change*. Boston, MA: Harvard Business Review Press.

Kurz, A., Talapatra, D., Roach, A. (2012). Meeting the curricular challenges of inclusive assessment: The role of alignment, opportunity to learn, and student engagement. *International Journal of Disability, Development, and Education*, *59*(1), 37-52.

Lai, J., Wood, L., & Marrone, M. (2012). Implementation of a curriculum management

tool: challenges faced by a large Australian University. *Asian Social Science*, *8*(14), 28-36.

Lam, B., & Tsui, K. (2013). Examining the alignment of subject learning outcomes and course curricula through curriculum mapping. Retrieved from *Australian Journal of Teacher Education*, *38*(12). doi:10.14221/ajte.2013v38n12.8

Learning Forward. (2014). The Professional Learning Association. Retrieved from http://learningforward.org

Lewin, K. (1951). *Field theory in social science*. London, UK: Tavistock Publications.

Liu, M., Wrobbel, D., & Blankson, I. (2010). Rethinking program assessment through the use of program alignment mapping technique. *Communication Teacher*, *24*(4), 238-246.

Lodico, M., Spaulding, D., & Voegtle, K. (2010). *Methods in educational research: From theory to practice*. Hoboken, NJ: John Wiley & Sons, Inc.

Love, N. (2009). *Using data to improve learning for all: A collaborative inquiry approach*. Alexandria, VA: Association for Supervision and Curriculum Development.

Lucilio, L. (2009). What secondary teachers need in professional development. *Catholic Education: A Journal of Inquiry and Practice*, *13*(1), 53-75.

Marzano, R. J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

McKay, K., Kuntz, J., & Naswall, K. (2013). The effect of affective commitment, communication and participation on resistance to change: The role of change

readiness. *New Zealand Journal of Psychology*, *42*(2), 29-30.

McTighe, J., & Wiggins, G. (2013). *Essential questions: Opening doors to student understanding.* Alexandria, VA: Association for Supervision and Curriculum Development.

Meier, L. (2012). The effect of school culture on science education at an ideologically innovative elementary magnet school: An ethnographic case study. *Journal of Science Teacher Education*, *23*(7), 805-822. doi:10.1007/s10972-011-9252-1

Merriam, S. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: Jossey-Bass.

Mitchell, G. (2013). Selecting the best theory to implement planned change. *Nursing Management - UK*, *20*(1), 32-37.

Moffet, P., & Moore, G. (2011). The Standard of care: Legal history and definition: The bad and good news. *Western Journal of Emergency Medicine*, *12(*1), 109-112.

National Center for Learning Disabilities. (2014). RTI Action Network. Retrieved from http://www.rtinetwork.org/learn/what/whatisrti

Nishimura, T. (2014). Effective professional development of teachers: A guide to actualizing inclusive schooling. *International Journal of Whole Schooling*, *10*(1), 19-42.

No Child Left Behind Act of 2001, Pub. L. 107-110, 20 U.S. C. § 6319 (2002).

Norman, S. (2010). The human face of school reform. *National Forum of Educational Administration and Supervision Journal*, *28*(1), 1-6.

North Central Association Commission on Accreditation and School Improvement.

(2002-2013). AdvancED Accreditation. Retrieved from http://www.ncacasi.org

Pearce, J., Mann, M.K., Jones, C., van Buschbach, S., Olff, M., & Bisson, J.I. (2012). The most effective way of delivering a train-the-trainers program: A systematic review. *Journal of Continuing Education in the Health Professions*, *32*(3), 215-226.

Penuel, W., Fishman, B. J., Gallagher, L. P., Korbak, C., & Lopez-Prado, B. (2009). Is alignment enough? Investigating the effects of state policies and professional development on science curriculum implementation. *Science Education*, *93*(4), 656-677.

Perkins, D., & Reese, J. (2014). When change has legs. *Educational leadership,* 42-47.

Petrie, K., & McGee, C. (2012). Teacher Professional Development: Who is the learner? *Australian Journal of Teacher Education*, *37*(2), 59-72.

Polikoff, M. S. (2012). Instructional alignment under No Child Left Behind. *American Journal of Education*, *118*(3), 341-368.

Rafferty, P. (2011). The confluence of curriculum theory and the phenomenological for the critical pedagogue. *Scholar-Practitioner Quarterly*, *5*(4), 385-393.

Reeves, D. (2010). *Transforming Professional Development into Student Results*. Alexandria, VA: Association for Supervision and Curriculum Development.

Richman, L. (2011). *Improving your project management skills*. New York, NY: AMACOM, Division of American Management Association

Roach, A. T., Niebling, B. C., & Kurz, A. (2008). Evaluating the alignment among curriculum, instruction, and assessments: Implications and applications for

research and practice. *Psychology In The Schools*, *45*(2), 158-176.

Roby, D. E. (2011). Teacher leaders impacting school culture. *Education*, *131*(4), 782-790.

Rodgers, E. (1995). *Diffusion of innovations*, 4th ed. New York, NY: Free Press.

Rodgers, E. (2003). *Diffusion of innovations*, 5th ed. New York, NY: Free Press.

Rubicon International. (2014). Atlas Curriculum Mapping. Retrieved from http://www.rubicon.com/AtlasCurriculumMapping.php

Saldana, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.

Sanetti, L. H., Kratochwill, T. R., & Long, A. J. (2013). Applying adult behavior change theory to support mediator-based intervention implementation. *School Psychology Quarterly*, *28*(1), 47-62.

Schein, E. (1996). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Systems Practice*, *9*(1), 27-47.

Schifalacqua, M., Costello, C., Denman, W. (2009). Roadmap for planned change, part1: Change leadership and project management. *Nurse Leader*, *7*(2), 26-29.

Schlechty, P. (2009). *Leading for learning: How to transform schools into learning organizations.* San Francisco, CA: Jossey-Bass.

Senge, P., Kleiner, A., Roberts, C., Ross, R., Roth, G., & Smith, B. (1999). *The dance of change: The challenges to sustaining momentum in learning organizations*. New York, NY: Doubleday.

Shawer, S. F., Gilmore, D., & Banks-Joseph, S. R. (2008). Student cognitive and

affective development in the context of classroom-level curriculum development. *Journal of the Scholarship of Teaching and Learning 8*(1), 1-28.

Shilling, T. (2013). Opportunities and challenges of curriculum mapping implementation in one school setting: Considerations for school leaders. *Journal of Curriculum and Instruction*, *7*(2), 20-37. doi:10.3776/joci.2013.v7n2p20-37

Squires, D. (2009). *Curriculum alignment: Research-based strategies for increasing student achievement*. Thousand Oaks, CA: Corwin Press.

Squires, D. (2012). Curriculum alignment research suggests that alignment can improve student achievement. *Clearing House*, *85*(4), 129-135. doi:10.1080/00098655.2012.657723

Thompson, D. (2010). Foundations of change for the scholar-practitioner leader. *Scholar-Practitioner Quarterly*, *4*(3), 270-286.

Towndrow, P., Silver, R., & Albright, J. (2010). Setting expectations for educational innovations. *Journal of Educational Change*, *11*(4), 425-455.

Trybus, M. (2011). Facing the challenge of change: Steps to becoming an effective leader. *Delta Kappa Gamma Bulletin*, *77*(3), 33-36.

Turan, S., & Bektas, F. (2013). The relationship between school culture and leadership practices. *Eurasian Journal of Educational Research*, *52*, 155-168.

Uchiyama, K. P., & Radin, J.L. (2009). Curriculum mapping in higher education: A vehicle for collaboration. *Innovation in Higher Education*, *33*, 271–280.

Vaill, A., & Testori, P. (2012). Orientation, mentoring, and ongoing support: A three-tiered approach to online faculty development. *Journal of Asynchronous Learning*

Networks, *16*(2), 111-119.

Veltri, N. F., Webb, H. W., Matveev, A. G., & Zapatero, E. G. (2011). Curriculum mapping as a tool for continuous improvement of IS curriculum. *Journal of Information Systems Education*, *22*(1), 31-42.

Wiggins, G., & McTighe, J. (2012). *The Understanding by Design guide to creating high-quality units.* Alexandria, VA: Association for Supervision and Curriculum Development.

Wiles, J. (2009). Leading curriculum development. Thousand Oaks, CA: Corwin Press.

Woodside, A.G. (2010). *Case study research: Theory, methods, and practice*. Bingley, U.K.: Emerald Group Publishing.

Yemm, G. (2013). *The Financial Times essential guide to leading your team: How to set goals, measure performance, and reward talent*. Harlow, UK: Pearson Education Limited.

Yin, R. K. (2011). *Qualitative research from start to finish*. New York, NY: The Guilford Press.

Ylimaki, R.M., & McClain, L. (2009). Wisdom-centered educational leadership. *International Journal of Leadership in Education*, *12*(1), 13-33.

Youngs, P. (2013). Using teacher evaluation reform and professional development to support common core assessments. Center for American Progress. Retrieved from http://files.eric.ed.gov/fulltext/ED539747.pdf

Appendix A: Professional Development Evaluation Training Plan

Outline and Timeframe for The Project

Professional Development Evaluation: Training Plan with Modules for Relaunching the Implementation of Curriculum Mapping for Curricular Alignment

Module Target Area	**Outline**	**Timeframe**
Training the Academic Leaders	• Re-training Workshop for 12 members of Academic Council • Establish vision, mapping objectives, & common language • Provided examples of exemplar maps	Full-day/ last week of July
	• Mentoring of entire faculty by Academic Departments	Full-day/ first week of August, by department- 4 /day 1 & 4 day/2
Selecting the Standards	• Departments select & identify which set of standards will be followed for learning outcomes	Allotted time during mandatory 1-day training/ first week of August
Promoting Collaboration/ Developing Common Assessments	• Teachers working in "buddy" system to have curricular conversations, create consensus maps, & develop common assessments for same courses	Every Thursday during early dismissal time/ beginning second week of school in August and continuing until AdvancED visit in April 2015/ continued thereafter if deemed necessary by Administrative Team
Expectations & Accountability	• Quality mapping rubric provided • Guidelines for producing consensus maps and common assessments	On-going evaluation & re-evaluation of maps

Project Explanations and Details

This project of a professional development evaluation: training plan with modules recommends that the professional development begin with all the members of the Academic Council of this private high school attending a full-day workshop (Module 1-Agenda for Full-Day Workshop) presented by a representative from Rubicon Atlas (Rubicon International, 2014) prior to the back-to-school in-service for teachers that takes during the second week of August. For the purpose of implementing the first module of this project of a professional development evaluation: training plan for relaunching curriculum mapping within this school culture, it is the recommendation of this researcher that this full-day workshop take place specifically during the last week of July.

After the members of the Academic Council have been trained-as-the-trainers, so to speak, this professional development evaluation training plan project recommends that a one-day, mandatory retraining on the process of curriculum mapping using Rubicon Atlas software take place with the entire faculty a week before the back-to-school in-service for all school stakeholders in August. This one-day, mandatory retraining on the process of curriculum mapping using Rubicon Atlas software would ideally take place specifically during the first week of August, after the full-day workshop training for the twelve members of the Academic Council in late July.

The format for the one-day retraining of the faculty would consist of dividing the eight academic departments (English, Fine Arts, Language, Math, Physical Education,

Project Explanations and Details (cont.)

Religion, Science, Social Science) into two groups, of four departments per group. For their respective one-day mandatory retraining session on the process of curriculum mapping, Group A would meet one day and group B would meet the next. The academic leaders will serve as the trainers for these retraining sessions, with three academic leaders each assigned and available to assist with the retraining session for one department.

In order to address the target area for the second module of this professional development evaluation training plan project of relaunching the implementation of the process of curriculum mapping, specific time will be allotted during the mandatory one-day training with the academic leaders of this private high school for academic departments to discuss and select which set of educational standards each academic department will be using to provide the learning outcomes on which the curriculum will be aligned (Appendix A: Module 2- Selection of Standards).

The third module of the framework for this professional development evaluation: training plan project, to address promoting a collaborative culture in order to develop consensus maps and common assessments, will require the weekly allotment of time for teachers to collaborate on building consensus maps using the Curriculum Mapping Template (see Appendix A- Module 3) available through the Rubicon Atlas curriculum mapping software. Currently, the weekly school schedule allows for an early dismissal

Project Explanations and Details (cont.)

of students on Tuesday and Thursday at 2:15 pm. The Tuesday afternoon early dismissal time is frequently designated as meeting time for Academic Council, Department Meetings, or Counseling Department meetings, so this allows for the Thursday early dismissal time to be allocated specifically as time for curriculum mapping.

I also recommend that during this Thursday early dismissal designated curriculum mapping time, teachers who teach a section of the same course be paired-up in a buddy-system of sorts in order to promote discussion, collaborative work on consensus maps and the development of common assessments for that particular course. For example, in the Science Department of this private high school, there are two Chemistry teachers. These two teachers would therefore be curriculum mapping "buddies" every Thursday afternoon from 2:20-3:20 until evidence of a consensus map and common assessments can be demonstrated and shared with the entire faculty. Designating a weekly-allocated timeframe for professional development will help in the relaunching of the implementation of the curriculum mapping process for curricular alignment at this private high school by providing for opportunities for working collaboratively, for reflection, for practice, for support, and for follow-up.

Evaluation and re-evaluation will be a major part of the fourth module, stating specific expectations and aspects of accountability, for the framework of this professional development evaluation training plan project. A key part to expectations and

Project Explanations and Details (cont.)

accountability involves providing examples of exemplar maps to faculty along with a rubric for assessing a quality map (see Appendix A: Module 4- Expectations and Accountability). It is also recommended that as the implementation of the process of curriculum mapping continues at this private high school and teachers are provided weekly allocated time for working collaboratively, the academic leaders identify specified criteria for providing evidence of the mapping work they have conducted. Also included within the established expectations and accountability would be guidelines for the faculty to produce a consensus map and common assessments, which can then be demonstrated and shared with the entire faculty.

Module 1- Agenda for Full-Day Workshop
(Rubicon International, 2014)

- Why is curriculum mapping important?

- Why are we mapping?
  - ✓ Create a "Why Map" Statement (small group activity)

- Review of the six Big Ideas/Enduring Understandings of curriculum mapping
  - Knowledge Transfer
  - Integration
  - Transparency
  - Accountability
  - Collaboration and Focused Conversations
  - Perspective

- Overview and Navigation of Rubicon Atlas curriculum mapping software
  - ✓ Personalize you're my Atlas dashboard
  - ✓ Access basic functions of Atlas (panels, tabs, communities)
  - ✓ Share Top 3 "Likes"
  - ✓ Share Top 3 "Confusion"

- Where to get help and support

LUNCH BREAK

- Building quality curriculum maps
  - ✓ Draft a Unit calendar for at least one course
  - ✓ Develop a Unit instruction plan

- Review for quality
  - ✓ Conduct self-review of one developed unit
  - ✓ Conduct peer-review of one developed unit
  - ✓ Conduct small group review of one developed unit

- Wrap-up & next steps
  - Summary of day
  - Take pulse
  - Gaining perspective
  - Check your understanding (see Appendix A-Evaluation Instrument I)

Module 2- Selection of Standards

Teaching Discipline	Choices of Applicable Standards
English	Common Core State Standards (CCSS) English Language Arts & Literacy Standards Illinois Learning Standards for English Language Arts National Council of Teachers of English (NCTE) Standards for Language Arts Teaching English to Speakers of Other Languages (TESOL) Internal Association Pre-K English Language Proficiency Standards
Fine Arts	Consortium of National Arts Education Associations (CNAEA) National Standards for Arts Education Illinois Learning Standards for Fine Arts Additional Standards are applicable for the individual teaching areas of the Fine Arts Department- Music, Theater/Performing Arts, & Visual Arts
Foreign Language	American Council on the Teaching of Foreign Languages (ACTFL) National Standards for Foreign Language Education Illinois Learning Standards for Foreign Languages Illinois Spanish Language Arts Standards
Math	CCSS Mathematics Standards K-12 Illinois Learning Standards for Mathematics National Council of Teacher Mathematics (NCTM) Principles & Standards for School Mathematics *and* Curriculum Focal Points
Physical Education	American Cancer Society National Health Education Standards Illinois Learning Standards for Physical Development and Health National Association for Sport & Physical Education Content Standards
Religious Studies	American Academy of Religion (AAR) Guidelines for Teaching about Religion CCSS Language Arts Writing Standards United States Conference of Catholic Bishops (USCCB) Standards
Science	American Association for the Advancement of Science (AAAS) Project 2061 CCSS for Literacy in Science Illinois learning Standards for Science National Academies of Science (NAS) National Science Education Standards National Science Teachers Association (NSTA) Standards Next Generation Science Standards (NGSS) Additional Standards are applicable for the individual teaching areas of the Science Department- Biology, Chemistry, Environmental, & Physics
Social Studies	CCSS for Literacy in History/Social Studies Illinois Learning Standards for Social Science National Council for the Social Studies (NCSS) Additional Standards are applicable for the individual teaching areas of the Social Studies- Economics, Geography, US History, & World History

Module 3- Curriculum Mapping Template
(Rubicon International, 2014)

STANDARDS: [Drop-down Menu allows for selection of specific Standards]
ENDURING UNDERSTANDINGS [Big Ideas]
ESSENTIAL QUESTIONS [Promote Inquiry]
CONTENT [Student will know…]
SKILLS [Student will be able to do…]
LEARNING ACTIVITIES
RESOURCES

Module 4- Expectations and Accountability

Rubicon International Quality Mapping Rubric (2014)

Criteria	Exemplary	Proficient	Emerging	Beginning Stages
Standards and Benchmarks **Proficient**	• Clearly tied to an assessment • Cross-curricular connections • Reflects what was actually taught at the end of the unit	• Some cross-curricular connections • Few are tied directly to assessment	• Included but not clearly tied to assessments • Nice to know, but not relevant to unit focus	• No standards & benchmarks indicated
Essential Questions **Exemplary**	• Engaging • Guides students' learning • Endures and establishes lifelong understanding of the unit • Thought provoking • Insightful • Age appropriate	• Clear focus • Eludes to an understanding	• Simplistic • Uneven in quality • More than a few in number • Questions unrelated to content and assessment(s)	• Absent • Unit Questions • Written as Yes/No or Right/Wrong
Content **Exemplary**	• Details specific, clear & succinct • In list form rather than narrative • References key concepts taught in unit • Noun driven facts • Topics align with standards, skills & assessments	• Describe main concepts • Subject matter Identified	• Few topics/concepts identified • Vague	• Generic • Narrative • Worded as skills • Disconnected alignment to skills & assessments
Skills **Exemplary**	• Commence with action verb • Precise & targeted • Reflects proficiency levels	• Clear action verbs • Measurable	• Generic verb • Broad objectives	• Vague • Written as content or activity • Disconnected to content & assessment
Assessment **Proficient**	• Specific products • Includes assessments FOR & OF learning • Modified for student proficiency • Wide-ranging • Would show evidence of student learning	• Product or performance listed clearly • Assessment focused around the intended skills	• Generic • Varied narrowly • Student expectation & role not noted	• Absent • Limited • Unfocused on the content & skills

Evaluation Instrument I
Full-Day Workshop
(Rubicon International, 2014)

Check Your Understanding

Your "Why Map" Statement: _____

Indicate which of the six Big Ideas/Enduring Understandings of curriculum mapping resonate with you and why: _____

List your top 3 "Likes" & top 3 "Confusion" regarding navigating the Rubicon Atlas software:

Likes	Confusion
1.	1.
2.	2.
3.	3.

Indentify one Support area within the Rubicon Atlas curriculum mapping software that you have checked out already or are planning to check out: _____

Reflections

I expected… _____

I received… _____

I still need… _____

I valued… _____

Nest steps for me include… _____

The workshop facilitator did a good job of… _____

Suggestions for the facilitator… _____

Additional comments… _____

Participant's Name (Please Print) _____

Participant's Signature & Workshop Date _____

Evaluation Instrument II
Self-Evaluation & Reflection
(Rubicon International, 2014)

Self-Evaluation

As the school year progresses, how will adjust your unit calendar based on student learning?

What categories of your unit instructional plan did you find to be easy to capture when developing a consensus map?

What tools will best support you as you review curriculum?

What was your biggest "ah-ha" moment after the review; what will you need to modify or adjust?

What stood-out most for you about the quality units you reviewed?

What refinements did you or will you make in your curriculum as a result of these shared discussions?

What is your next step after locating a gap or repetition in the curriculum?

What refinements will you make in your curriculum as a result of examining your standards and assessments?

Reflections

I expected… _____

I received… _____

I still need… _____

I valued… _____

Nest steps for me include… _____

Additional comments… _____

Reviewer's Name (Please Print) _____

Reviewer's Signature & Review Date _____

Appendix B: Emerging Understandings of Collected Data from Documents

Date of Document	
Type of Document	
Title of Document	
Relevant Text	
Concepts, Ideas, Thoughts	
Emerging Pattern(s)	

Appendix C: Sample Semi-Structured Interview Questions

Date & Time of Interview	
Participant Identifier	
Years of Teaching	
Discipline & Grade Levels Taught	
Number of Courses or Units Currently Mapped	

1. What do you perceive to be the primary goal for the implementation of curriculum mapping within the school culture?

2. Which of the strategies that were used for implementing the process of curriculum mapping did you perceive to be useful for you to incorporate mapping for documenting your course curriculum?

3. Which of the strategies used for implementing the process of curriculum mapping did you perceive to not be useful for you to incorporate mapping for documenting your course curriculum?

4. What are some of the challenges of implementing curriculum mapping within the school culture?

5. What implementation strategies should be revised or added to help promote the utilization of curriculum mapping within the school culture?

Appendix D: Observational Protocol Form for Recording Field-Notes

Date & Time of Observation:
Participant Identifier:
Descriptions:
Direct Quotations:
Observer Comments:
Observer Reflections:

Appendix E: Example of Emerging Understandings of Collected Data from Documents

Date of Document	March, 2011
Type of Document	(Draft) Agenda for Faculty Meeting
Title of Document	Strategy Requirements Meeting / Atlas Curriculum Mapping
Relevant Text	• Vision • Creating a culture for mapping • Design & Practice • Requirements & Purpose • Communication • Professional Development
Concepts, Ideas, Thoughts	• Template design • Incorporating podcasts and/or webinars • Collaborative opportunities
Emerging Pattern(s)	• Accountability • Expectations • Standards • Instructional Outcomes

Appendix F: Curriculum Mapping Strategy Requirements Agenda

Strategy Requirements Meeting

DRAFT AGENDA

March, 2011

- Overall Vision for Curriculum Process
- Overall Implementation Strategy
  - Creating a Culture for Mapping
    - Design & Practice
    - Requirements & Purpose
  - Communication of a Unified Message and Expectations (Shifting the Paradigm of Curriculum Work)
    - Process & Product
    - Timelines & Checkpoints for Faculty
- ⊞ Professional Development Considerations
  - Training and Faculty Roll-out model
    - Curriculum Mapping/Process Prologue
    - Core Team role and leadership training
    - System Administrator role and training
    - Collaboration protocols
  - Review processes and continuing conversations
    - Follow-up trainings
    - Advanced Analytical tools
  - Incorporation of podcast and other web-based Rubicon professional development support
  - Atlas Regional Workshops and Atlas Education Center (AEC) trainings
- Template Design
  - Choice of Template

- Overarching Ideas and Pedagogies (Understanding by Design)
  - Mission, Vision, and Curricular Philosophies
  - Embedded Widgets/Auxiliary Maps
- Mapping Categories & Layout
- Category Descriptors

- Standards, Outcomes or Benchmark Alignment
  - Standards and amalgamations
  - School-wide Learning Results
  - Degree of Disaggregation
  - Proficiency Levels/Continuum

⊞ Types of Maps

- Adopted or Applied (Diary Maps)
- Approach to Collaboration
  - Master Maps
  - Team or Grade level
  - Exemplary/Best Practices Maps
  - Use of Atlas Exemplar System

- Level of Review (e.g., Team, Heads of Department)
- Reaching Consensus

⊞ Curriculum Resource Center

- Organization
- Mapping Processes & Timelines
- Pedagogical Approaches and Definitions
- Curriculum Department Procedures & Information

Appendix G: Archival Document: Curriculum Mapping In-Service Practice

1. Log in to Rubicon's Atlas: http://rubiconatlas.org
2. Locate **Name** [use up-down arrows]
3. For 1st time login, use **experience** as password, then change your password
4. Under **Course**, locate and click on the fictitious course: **Interdisciplinary Biographical Knowledge**
5. Determine a **timeline** for this course by entering the "**Unit Name"**, followed by the expected number of weeks for teaching this unit by indicating **From – To** **CLICK SAVE** before proceeding to add another unit
6. Create a **New Unit** by adding another "**Unit Name**" and again determining the expected number of weeks for teaching this unit by indicating **From – To** **CLICK SAVE** before proceeding to add another unit and repeat this step until the timeline for the Course Outline (all 9 Units) is completed
7. To begin mapping a Unit of your choice, click on the **Unit Name**, the mapping template will load.
    - Scroll your mouse over the template section headings for explanations and examples of what is to be incorporated under that particular heading

EXAMPLE OF MAPPING TEMPLATE:

Standards *For this fictitious course on Biographical Knowledge, use the "*AASL Standards for the 21st Century Learner*"* Click the square to indicate the chosen standard(s) Click SAVE

Enduring Understandings (Optional for 2011-2012) *The Student will understand that…*	**Essential Questions** *Highlight important ideas of the Unit*
Content (Student will know…) *What Students can explain to others*	**Skills** (Student will be able to…) *Always begin with an Action verb*
Assessment *Observable, measurable, & aligned to Standards*	
Learning Activities	**Resources**

Fictitious Course Title: Interdisciplinary Biographical Knowledge
Fictitious Course Description: In this age of hypermedia, wherein public debate too often devolves into a yelling contest, it is vital for young people to be taught the skills necessary to evaluate a profusion of platforms and arguments—most of which are rooted in our complex collective past.
Fictitious Course Learning Objectives:
Upon successful completion of this course students will be able to:
1. Develop an effective, clear writing style
2. Identify, explain, and recognize the contributions of famous people
3. Design and use tables, graphs, and technical illustrations
4. Gather, interpret, and document information logically, efficiently, and ethically
5. Compare and Contrast the work of famous people

Fictitious Course Outline:
Unit 1- Athletics
- Coaches- Vince Lombardi, George Halas, Phil Jackson
- Chicago Athletes- Walter Payton, Michael Jordan, Stan Mikita

Unit 2- Art
- Painters- Leonardo da Vinci, Rembrandt van Rajn, Claude Monet
- Composers- Wolfgang Amadeus Mozart, Ludwing Van Beethoven, Johann Sebastian Bach

Unit 3- History
- Presidents: George Washington, Theodore Roosevelt, Abraham Lincoln, Thomas Jefferson
- Other World Leaders: Mahatma Gandhi, Ho Chi Minh, Nelson Mandela

Unit 4- Journalism
- Print: Benjamin Franklin, Joseph Pulitzer, Charles Kuralt
- Broadcast: Walter Cronkite, Barbara Walters, Edward R. Murrow

Unit 5- Language & Culture
- Italian: Christopher Columbus, Niccolò Machiavelli, Michelangelo
- Spanish: Pablo Picasso, Plácido Domingo, Miguel de Cervantes
- Latin: Marcus Tullius Cicero, Pliny the elder, Horace (Quintus Horatius Flaccus)

Unit 6- Mathematicians
- Working with Numbers: Fibonacci, Gottfried W. Leibniz, René Déscartes
- Geometry: Pythagoras of Samos, Euclid of Alexandria, Archimedes of Syracuse

Unit 7- Scientists
- Natural Sciences: Charles Darwin, Francis Crick, Carolus Linnaeus
- Physical Sciences: Isaac Newton, Albert Einstein, Enrico Fermi

Unit 8- Technological Inventors
- Before 1900: Johann Gutenberg, James Naismith, Adolphe Sax
- After 1900: Steve Jobs, James Dyson, J. Robert Oppenheimer

Unit 9- Theologians
- Catholic: Pope John Paul II, Thomas Aquinas, Saint Francis of Assisi
- World Religions: Brigham Young, Confucius, Dalai Lama

Appendix H: Concepts Generated by Participants' Responses to Interview Q1

Participant	1. What do you perceive to be the primary goal for the implementation of curriculum mapping within the school culture?
A	• common curriculum & common assessments
B	• creation of a collaborative environment with uniformed expectations
C	• working towards common curriculum & common assessments
D	• to evaluate that what is being taught is what should be being taught • scaffolding & vertical alignment within the academic department
E	• to aide in aligning the curriculum among common subjects • development of common assessments
F	• teacher accountability & collaboration
G	• to know the core topics being taught in each classroom • to match up with the CCSS
H	• teaching to the standards to eliminate any discrepancies between teachers
I	• strengthen the curriculum in terms of consistency and accountability • provide for collaborative opportunities
J	• to unify instruction

Appendix I: Concepts Generated by Participants' Responses to Interview Q2

Participant	2. Which of the strategies that were used for implementing the process of curriculum mapping did you perceive to be useful for you to incorporate mapping for documenting your course curriculum?
A	• easy-to-use mapping software for collaborative purposes • team approach
B	• high priority given to mapping • easy-to-use mapping software
C	• user-friendly software
D	• departmental discussions • the mapping software that was selected was especially helpful
E	• promotion of teacher ownership for the process • initially, time allocation for mapping
F	• the mapping software provided commonality for all users • built-in school day Professional Development time to map
G	• hands-on training in smaller groups
H	• to be able to construct our maps using the easy-to-use software • mapping together as a department
I	• opportunities to map with colleagues during given time periods
J	• exemplars of maps available within the mapping software program

Appendix J: Concepts Generated by Participants' Responses to Interview Q3

Participant	3. Which of the strategies used for implementing the process of curriculum mapping did you perceive to <u>not</u> be useful for you to incorporate mapping for documenting your course curriculum?
A	• although the software is easy-to-use, it is quite expensive
B	• no longer allotting Professional Development time for the mapping process, but expecting teachers to map on their own time
C	• first creating individual maps & then creating collaborative maps
D	• selection of standards
E	• shift on standards used from ACT College Readiness to CCSS
F	• the selected template made the work seem extremely repetitive
G	• finding the correct standards to align with • time in the morning for mapping before having to teach classes
H	• encouraging teachers to construct their maps on their own time
I	• expectations for teachers to produce high quality maps on their own
J	• collaboration opportunities • selection of standards

Appendix K: Concepts Generated by Participants' Responses to Interview Q4

Participant	4. What are some of the challenges of implementing curriculum mapping within the school culture?
A	• allocating professional development time specifically for mapping • hesitancy of faculty to change • never enough time
B	• getting all the faculty on board • the pressure of the time needed to implement effectively
C	• keeping people on task • resistance to change • only small snippets of time available during the school day
D	• overall decisions on what standards to incorporate • collaboration time
E	• the biggest challenge has always been time • additional school initiatives being implemented simultaneously
F	• teacher buy-in • agreement on the use of common assessments • professional development time for mapping
G	• getting teacher buy-in • not enough time
H	• accountability of teachers for creating their maps
I	• hesitancy or resistance of other teachers • understanding the value in curriculum mapping • short amount of time given to map during the school day
J	• teacher participation & buy-in

Appendix L: Concepts Generated by Participants' Responses to Interview Q5

Participant	5. What implementation strategies should be revised or added to help promote the utilization of curriculum mapping within the school culture?
A	• follow-up & accountability
B	• agreement on standards and common language for mapping • assess the completed maps for quality
C	• provide incentives to complete the maps • provide collaboration time
D	• more collaboration time • an attitude adjustment
E	• training on Common Core State Standards • discussions about formative & summative common assessments
F	• more departmental time to focus on collaborative mapping • go-to mapping experts on hand
G	• testimony from a school that has done mapping • some form of data depicting the benefits of mapping
H	• more of a means of accountability & rewarding those who have done what they were asked to do
I	• creating common maps instead of individual maps for the same courses
J	• bring in testimony & someone who knows enough about mapping to explain about doing it

Appendix M: Example Observational Protocol Form for Recording Field Notes

Date & Time of Observation: April 16, 2014 8:00-8:20am

Participant Identifier: Participant H

Descriptions:
- The textbook of the course is the go-to source for planning & sequencing
- 4 courses (maps) are indicated, 3 of these are set-up as collaborative maps
- No collaboration took place during this time on these maps

Direct Quotations:
"We really need more time to plan and map more collaboratively, but there is just not enough time when someone is teaching five classes a day. On top of doing my instructional planning and grading, I just do not devote time to mapping"

Observer Comments:
- Course description is missing from map
- Assessments included on maps are not indicated as being summative or formative
- Alignment with Standards is not evident
- Allotted 20 minute timeframe was not adequate for planning & mapping

Observer Reflections:
The time spent on actual mapping was short-lived, with no discussions occurring with fellow teachers of the same course.

Curriculum Vitae

ELLEN E. DUTTON

EDUCATION

Walden University, Minneapolis, Minnesota
January, 2011
Currently enrolled in Doctor of Education (Ed.D) Program:
Curriculum, Instruction, and Assessment
Expected date of completion August, 2014

Concordia University, River Forest, Illinois September, 1996 to May, 2002
Masters of Arts in Teaching: Curriculum and Instruction

Augustana College, Rock Island, Illinois September, 1982 to June, 1986
Bachelor of Arts Degree
Major: Biology, with a concentration in Environmental Studies
Minor: Health

AWARDS AND HONORS

2012 Archdiocese of Chicago Distinguished Educator
2011 Walden University Richard W. Riley College of Education and Leadership Scholarship
2011 Notre Dame College Prep Commitment to Excellence Scholarship
2006 Toyota Tapestry Grant Recipient
Project Title: "Improving Beach Management to Reduce the Impact of *Escherichia Coli* Bacteria on an Aquatic Environment"

TEACHING AND WORK EXPERIENCE

Notre Dame College Prep, Niles, Illinois August, 2001 to present

Science Department Chair (2008 to present)
Responsibilities include: overseeing department activities, mapping science curriculum standards and objectives, facilitating meetings, maintaining departmental budgets

Teacher
Advanced Placement Biology- junior/senior level

Adjunct professor with Saint Mary's University of Minnesota's Program for Advanced College Credit (PACC)

Bioethics- junior/senior level
Proposed, created, and currently teach this interdisciplinary course which combines dimensions of science, religion, philosophy, and social studies to allow students to experience the interconnectedness of knowledge

Biology- freshman/sophomore level
Responsibilities included: developing and implementing lesson plans, presenting course material and assessing students' performance.

Mother Guerin High School, River Grove, Illinois August, 1996 to June, 2001

Teacher
Earth/*Environmental Science*- junior/senior level
Responsibilities included: developing and implementing lesson plans, presenting course material and assessing students' performance. Developed and taught in an interdisciplinary program

Biology- sophomore level
Responsibilities included: developing and implementing lesson plans, presenting course material and assessing students' performance.

Norridge Park Preschool, Norridge, Illinois September, 1987 to August, 1996

Teacher
Four-year old Preschool
Responsibilities consisted of: preparing for four classes each school year, developing lesson plans, conducting classes which included demonstrating projects, conducting games and songs, story telling, and various other duties associated with child care

Kindergarten Aide

EXTRACURRICULAR ACTIVITIES

Environmental Adventure Club Moderator August, 2002 to present
Responsibilities include: facilitating weekly meetings, planning and organizing trips, overseeing club officers, and service projects

Polish Club Moderator January 2011 to present
Responsibilities include: facilitating weekly meetings, planning and organizing trips, overseeing club officers, and service projects

Kairos Retreat Leader September 2000 to present

Senior Class Moderator August, 1999 to June, 2001
Responsibilities included: planning senior prom, post-prom event, Baccalaureate and Commencement exercises, and service projects

---

PROFESSIONAL MEMBERSHIPS

ASCD (formerly the Association for Supervision and Curriculum Development)
National Science Teachers Association (NSTA)
National Association of Biology Teachers (NABT)

PHILOSOPHY OF TEACHING AND LEARNING

My philosophy of teaching and learning begins first with the role of the teacher in the classroom. As a secondary educator, my goal is to help students develop a life-long love of learning by promoting within them the desire for knowledge, not just for the sake of passing a test or earning a grade, but for the benefit of their own physical, intellectual, and spiritual development as a person.

For me personally, teaching is not just a job to earn a paycheck. It is a job that involves helping others. A teacher, on any given day, has many functions to perform. Being a teacher involves not only the impartation of knowledge to students, but also the role of confidence-builder, advisor, caregiver, mediator, disciplinarian (if necessary), and yes, sometimes, even just a friend.

My beliefs about teaching and learning do not fall squarely on the side of a more "Traditional Approach", nor that of a "Constructionist Approach". Rather my approach to teaching and learning strives to incorporate aspects of both approaches while focusing on the bottom line… student achievement. In order for my students to achieve, I need to present them with effective assignments that have clear and precise objectives, while also applying various levels of thinking from Bloom's taxonomy.

In addition to designing lessons to help keep students actively engaged in learning, as an effective teacher, I need to be aware of the students I am teaching. Rather than focusing only on the subject or grade level I am teaching, I need to also make allowance

for my students' multiple intelligences when considering what they are to achieve and accomplish from the lesson.

Finally, the beliefs I hold concerning classroom management are, first and foremost, that respect and responsibility are essential to an effective classroom. This includes assisting students in developing behavior that is based on respect for learning, respect for oneself and respect for others. I need to set the example and model the same choices and behaviors that I want my students to carry out. It is the teacher who makes the difference in the classroom.

The climate of my classroom is task-oriented, yet relaxed and pleasant. It is a place where students know what is expected of them, and they know what is required in order for them to be successful. In order to be an effective educator, I need to have a clear idea and understanding of what I expect from my students. In turn, my students need to have a clear idea and understanding of what I expect from them. By having a clear idea and understanding of the classroom expectations, guidelines, and procedures, the students in my classroom can be successful- which is for me, after all, what teaching is all about.

It has been said, "to teach is to touch the future", I agree with this statement wholeheartedly. Being an educator allows me the opportunity to offer support and encouragement to my students as they strive to achieve success. Often, when a successful person is asked what helped them to attain their goals, they attribute their achievements to the guidance they received from a teacher.