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The high school redesign initiative: administrators' perspectives

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THE HIGH SCHOOL REDESIGN INITIATIVE:

ADMINISTRATORS' PERSPECTIVES

By

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The push to redesign America's failing schools is in high gear. With the ever-changing landscape of the 21st century global economy, students face a demand to be much more highly skilled entering the workforce. The focus of Topnotch School District is to prepare students in the areas of math, science, and communication skills in order to ensure them a competitive position in the job market. The district will design its course of study to engage students and motivate them to stay in school.

The Mississippi Department of Education began an initiative called the 21st Century School Redesign in 2006. The focus of this initiative was to prepare students to compete in the global workforce. With outsourcing of jobs to other countries increasing, the competition for jobs is immense. Students who choose not to go to college must obtain the skills necessary to compete for the higher skilled positions available. Those who do choose to attend college must have the skills necessary to be successful also.

The Mississippi Department of Education used a competitive grant process to choose 13 school districts in Phase I of the redesign initiative. Phase II of the redesign

initiative saw 19 additional school districts brought on board. This study focused on Topnotch School District, which entered the redesign initiative in Phase II. The study was designed to understand the issues of the initiative that the administration team faced in the implementation process.

In this study, formal interviews and casual conversations were used along with archival documents to determine the issues faced by building principals, central office personnel, business managers, technology coordinators, and vocational directors during the implementation of the initiative.

The results of this study suggest that there is a lack of knowledge of redesign on the part of the administrative team. The results also show that communication throughout the process is crucial to success. Additionally, the system and procedures of reimbursement and asset management were questionable and led to a number of mistakes.

DEDICATION

This research is dedicated to my late father, Jack Phillip Craven, and my mother, Jean Walker Craven, who provided me with the work ethic and the desire to do my very best.

This is also dedicated to my brothers and sisters, the late Katherine Craven Byford, Patty Lee Craven, Johnny Bruce Craven, Richy Henry Craven, and James Bryan Craven, whom I competed against throughout my childhood.

Lastly, this is dedicated to my children, Matt, Megan, and Marli, whom I have never lost sight of and who motivated me to keep going.

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Finally, Robeka, what a long strange trip it has been. Thank you for pushing and pulling and keeping me going when I was ready to quit. There is no way I would be here without you.

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Introduction

The move to redesign in Mississippi school systems to keep up with the changing global economy has begun. The present day system has fallen under attack for over a quarter of a century. State and federal agencies have sought to fix what is considered a poor performing educational system (Mississippi Department of Education [MDE], 2006a). Policymakers from the national level down to the schools themselves are looking for ways to improve student achievement, high school graduation rates, and the career and college prospects for high-school-aged young people. Research indicates that students want and need a more rigorous and relevant high school educational experience that allows them to develop supportive, caring relationships with adults (Hull, 2005). Mississippi is in the process of implementing a program of redesigning schools that will help students compete in the ever-changing economical landscape.

Review of Related Literature

Changes in Labor

The education workforce has seen many changes over the past 50 years, the most dramatic of which is in the area of the skilled workforce. In the 1950s, the majority of the workforce (60%) consisted of unskilled labor. Today that trend has evolved to 65% of the

labor force being skilled laborers (MDE, 2006a). Understanding the need for skilled laborers, along with understanding that the educational system directs all students toward higher education, a need for change can easily be identified.

Hull (2005) discussed the rapid integration and connection of national economics. With the rise of international competition and the outsourcing of jobs, the need for the United States workforce to adapt to these changes is important. The world's economy is globalized and rapidly changing to an individually driven, diverse workforce. With low-cost manufacturing in other parts of the world, many jobs have been outsourced overseas. Many areas of the United States have seen significant job loss. It has become easier and easier to move work around the globe. In addition, many highly skilled baby boomers will be leaving the workforce over the next several years creating a need for America's younger workforce to upgrade its skills. For that reason and because of the dramatic shift of the labor workforce from the unskilled jobs to the present day skilled labor force, educational reform is important.

According to the Southern Regional Education Board (SREB, 2009), 70% of the fastest growing jobs will require a student to be prepared in both a quality career and in technical studies. Many high school students who plan to enter the workforce after graduation are not prepared for the demands that business and industry put on them.

Schools need to embrace the notion that given the right environment most students can learn challenging materials. At the same time, they can acquire problem-solving skills, academic and technical skills, and communication skills they will need for the workforce.

The major factors the SREB (2009) identified that can influence student achievement include high expectations and standards, a rigorous curriculum, instruction that is engaging, and strong guidance programs. Using these factors can help provide meaning and direction to student learning.

Changes in Schooling

Over the past 50 years there have been little significant changes in school systems in the United States. Gates (as cited in Hull, 2005) stated the following about the American high school:

> American High Schools are obsolete. By obsolete I mean that our high schools even when they are working exactly as designed, cannot teach our kids what they need to know today. Training the workforce of tomorrow with high schools of today is like trying to teach kids about today's computers on a 50-year-old mainframe. It's the wrong tool for the times. (p. 31)

High schools are not motivating young people to be serious about preparing for the demands of college and/or the workplace. There are too many students receiving a high school diploma with little knowledge or the skills necessary to achieve success. The lack of rigor or relevance in the educational process is evident. The U.S. educational system has stooped to teaching to a test instead of career preparation (Hull, 2005). To the future of the students and the educational system, school reform is a serious issue.

History of Redesign

Rudland, Jurgens, and Ballard (2003) noted that Tech Prep was the beginning of the move to have students in the U.S. technology literate. The idea of Tech Prep was to respond to the needs of high school students who were identified as the neglected majority. Tech Prep encouraged students to attain higher levels of academic and technical competences and to continue their education or enter the workforce. Rutland, et al. made the following comment about Tech Prep: “It was designed to provide a program for career preparation and workforce development. It was also intended to establish articulation agreement identifying and increasing rigorous academic and career–technical programs having a logical progression from secondary to post secondary levels” (p. 69).

With the onset of the No Child Left Behind Act (NCLB) of 2001, schools began to look at other ways of motivating students and keeping them in school. Principals began to look at career and technical education (CTE) as a possible alternative to the traditional academic education arena. Since the NCLB Act, CTE programs have continuously dropped enrollments because of the rigor of the provisions that all students must achieve proficiency in reading and other academic areas. CTE programs will continue to drop in student enrollment unless CTE leaders can clearly show these programs contribute to the academic success of students as measured by academic tests, serve as a motivation for students to stay in school, and help students perform better in academic courses. (Chadd & Drage, 2006).

Need for Redesign

The Association for Career and Technical Education (ACTE, 2006) indicated in an executive summary stated that more than 95% of high school students take at least one CTE course during their high school careers. ACTE suggests that students need the knowledge gained in a rigorous core educational program. ACTE states that students also need to be equipped to make well-informed decisions in career-related matters. Above all, students need to be prepared to entire the workforce directly after high school.

Efforts in Redesign

Georgia is on the forefront of much of the high school redesign research available. At the beginning of the 21st century, Georgia identified and described new directions for CTE in high schools (Lynch, 2000). The purpose of much of this work was to describe an appropriate education and experiences needed by high school students to prepare them to enter employment upon graduation and for continuing study in postsecondary institutions. Georgia pinpointed four forces underpinning the demand for reform in high school vocational education: (a) the new economy, (b) public expectations for students, (c) new research on student learning and motivation and effective teaching, and (d) a loud call for reform of the American High School.

From this study, Lynch (2000) developed four themes and components of high school career and technical education for the first decade of the 21st century. These include the following: (a) infuse career planning throughout the entire curriculum from pre–K through lifelong learning, (b) ground career and technical programs in high school reform, (c) improve the image of and upgrade vocational education into a new and

improved career and technical education, and (d) prepare high school graduates both for workplaces and for continued education. For the four themes developed in this study, it became evident that the essence of these themes involved all teachers and parents who should be cognoscente. This especially includes the workplace. As the themes developed through the research, the respondents consistently spoke of the need to change the way in which high schools are organized, curriculum is delivered, and students are taught. Also evident was the theme that reform initiatives must be important and substantial.

Mississippi's Approach to Redesign

Research shows that CTE programs should provide students with improved technology and skills that would allow them easier transitions into the workplace and continuing education (Ryken, 2006). These areas are of major concern in Mississippi. The redesign effort is designed to attack these areas of importance. Dr. H. Bounds (MDE, 2006a), former Mississippi State Superintendent of Education, made the following comments about Redesign:

> Improving the lives of Mississippians requires more than redesigning high schools. If we want all students to graduate high school and succeed in the 21st century and beyond, we must work collectively with local educational agencies, business, and industries, post-secondary institutions of higher learning, and the state wide work force development system. (para. 1)

As the high school model in Mississippi is examined to respond to these challenges, there is a need to integrate components of the 21st century high school model (MDE, 2006a). This model includes core academic subjects, learning and thinking skills,

global awareness literacy, information and communication technology literacy, life skills, and 21st century assessments.

As with Georgia's redesign model, Mississippi educators named seven pathways that are to encompass over 100 different vocational areas as job-related fields (MDE, 2006a). Mississippi has realized that the integration of technology, science, and mathematics can help improve all areas of the curriculum. These components coupled with logistical and research-based instruction reform, such as developing small learning communities during a common planning time and community involvement and implementation of career pathways of students, are likely to sustain Mississippi's high schools in the 21st century and beyond. Research by Childress (1996) reiterated to Mississippi the importance of these new curricula. Childress found a correlation between integrating a science and mathematics curriculum and the facilitating of technological problem solving.

Mississippi's schools are in the third year of the redesign process. A total of 13 schools came on board in Phase I during the 2007–2008 school year, with an additional 19 following in 2008–2009. The first phase of the redesign of new pilot site schools began in the seventh and ninth grades. Redesign started with converting existing Tech Prep labs of Career Discovery in the seventh grade to Information and Communication Technology I (ICT I), of Computer Discovery in the eighth grade to Information and Communication Technology II (ICT II), and of Technology in ninth grade to Science, Technology, Engineering, and Mathematics Applications (STEM).

Tech Prep in Mississippi was an innovative school-to-career program introduced to high schools in 1993. Tech Prep prepared students for the careers of tomorrow through the combination of rigorous academic courses and high-level technical training ensuring a smooth entry into the workforce or a continuation of further education. Tech Prep gave students an alternative to the traditional college prep course of study (MDE, 2006a).

ICT I was implemented in place of the Tech Prep class of Career Technology. ICT I is a course that all seventh-grade students are required to take. The purpose of the course is to prepare students for a competitive global workforce in technology literacy, academic skills, and workforce development. In the ICT I curriculum, students complete a study in interpersonal and self-directed skills, basic technology operations and concepts, and social, ethical, and human issues that are related to technology. Technology communication tools, technology research tools, multimedia presentation applications, word processing applications, spreadsheet applications, and design applications also are incorporated (MDE, 2006a).

ICT II was implemented in place of the Tech Prep class Computer Technology. This course is mandatory for eighth-grade students. The purpose of this course is to prepare students with advanced technology literacy, workforce, and academic skills necessary to compete in a global workforce. Students in these courses complete a study in interpersonal and self-directional skills, input applications, database, design applications, graphic design, Web page design, preparing to be a successful online student, networking, and problem solving and decision making with technology tools (MDE, 2006a).

Both ICT I and ICT II frameworks are built around 21st century skills standards and the National Educational Technology Standards (NETS) for students. Mississippi Career Pathways and the Mississippi Department of Education Subject Area Testing Frameworks are integrated throughout the competences, objectives, and suggested teaching and assessment strategies. Upon completion of ICT I and ICT II, students will be prepared for a computer literacy exam, which will allow them certification and will transfer to Institutions of Higher Learning (IHL) and meet the eighth-grade computer literacy requirements of the NCLB Act of 2001(MDE, 2006a). For the ICT I and ICT II labs a total budget of $75,000 was allowed.

STEM was implemented in place of Technology Applications, which was a part of the Tech Prep initiative. STEM is a mandatory class for ninth-graders to prepare them for the global workforce and future studies in postsecondary academics and vocational areas. Students are exposed to rigorous technology application tools. The use of these tools enhances mathematical skills by applying mathematical concepts and theories to solve real-world, industry-specific problems, and to complete an online class (MDE, 2006a). The high concentration of mathematics skills supports the research findings of Stone (2004) where he cites that vocational students need to have a higher level of mathematics proficiency to be able to compete in today's job market.

The STEM curriculum is built upon 21st century skills standards, NETS for students, and industry-specific standards. Mississippi Career Pathways and the Mississippi Department of Education Subject Area Testing Frameworks are integrated throughout the competences, objectives, and suggested teaching and assessment

strategies (MDE, 2006a). MDE has allotted $90,000 per lab to complete the STEM renovation. Another component of redesign involves the vocational skills programs. These programs now called Career Pathways are a broad category that encompasses numerous occupations that share a common theme. This broad theme gives students a context of connecting what they are learning with a wide spectrum of academic/technical subject areas. Mississippi Career Pathways align with the National 16 Career Clusters that are designed to expand options and opportunities for all students (State Career Clusters Initiative, 2010). These pathways reinforce academic learning by demonstrating direct application of classroom learning to the world of work. These pathways enable students to gain a practical understanding of the broad range of career, occupational, and educational options that are available to them. Pathways can give students a better understanding of their potential and interests (MDE, 2006a). According to Hull (2005) in his book, *Career Pathways Education with a Purpose*, "Career Pathways is the best way schools can impact both the information and inspiration for students who then must provide the perspiration" (p. 1).

Administrative Involvement

The perspectives of administrators involved in a redesign process are of utmost concern. As planning, purchasing, and implementing the redesign initiative takes place, administrators need to be knowledgeable of the entire redesign process. As the Minneapolis Public Schools found as they began to initiate a redesign of their high schools, including all participants in the process helps gain positive experiences for all (Minneapolis Public Schools, 2010). Bringing the redesign to the attention of parents,

students, teachers, principals, and the community and sharing and discussing the elements involved helped to ensure the potential academic impact of the redesign.

Administrators need to feel that they are a part of the redesign initiative. In a two-year study on the Chicago High School Redesign initiative (CHSRI; Sporte, Kahne, & Correa, 2004), principals stated that they need to have a voice in how the redesign takes place. They found teachers to be very supportive of the initiative; however, they also felt that training for teachers had been inadequate. In general, Sporte, et al.'s findings indicated that to ensure that the redesign works properly, everyone involved needs to be taken into account.

Summary of Literature Review

Research shows that the educational system in this country is not meeting the demands of young students. With high dropout rates and a widening in the achievement gap with other nations, there is a need for redesign in the system. If students in the United States are going to have a chance to be competitive in the global economy, the time is now.

Since the early 1950s, there has been a dramatic shift in the workforce. The shift has come in skilled labor. During the 1950s, the majority of laborers were unskilled. That trend has completely shifted to the majority of the workforce now being skilled. Changes in the labor market demand attention to the rigor and relevance of the curricula being presented to students. Changes made will enable these students to be successful in the 21st century workforce.

The U.S. school system has seen little change during this 50-year period. There is a lack of rigor and relevance in the educational process. High schools and the United States educational system in general are not motivating students to be prepared for life after high school.

As NCLB came into existence in 2001, schools began to look at their CTE programs as an alternative to traditional education. With students being forced to achieve in reading and other academic areas, CTE programs dropped in enrollment. CTE leaders see clearly that these programs can contribute to a student's academic success, and could be a motivator to keep students in school.

The Tech Prep initiative was the first step in moving students toward being literate in technology. Intended to provide career preparation for students, higher levels of academic and technical competencies were expected to help identify the neglected majority of students. Tech Prep was also intended to help students progress from secondary to post secondary in a logical progression.

Efforts in redesign were found from the state of Georgia. Identifying new directions for CTE's, Georgia found forces that underpinned the demand for school reform. These included the economy, expectations for students, student learning and effective teaching, and an overall loud call for reforming America's schools. Through Georgia's efforts in redesign, the infusion of career planning and improving the images of vocational education help to prepare high school graduates for either the workplace or continued education.

Mississippi's approach to redesign included improving the lives of Mississippians by redesigning high schools. MDE intended to integrate core academic subjects, thinking and learning skills, global literacy, information and communication technology literacy, and life skills. Seven pathways were developed to cover over 100 different job related skills.

Replacing the existing Tech Prep labs with ICT I, ICT II, STEM, and Career Pathways, students were to gain competencies that would give them high levels of technology literacy, and improve their mathematical and problem solving skills. Career Pathway programs will give students an understanding of the range of occupational, career, and education options available to them.

Administrators' perspectives in the redesign process are of concern. Being knowledgeable of the entire redesign process would enable the planning, purchasing, and implementation process to be a positive experience for all concerned. Both teachers and administrators have been found to be supportive of a redesign initiative. However, to ensure the redesign is a success, all participants need to be involved.

Statement of the Purpose

The purpose of this case study is to understand the issues of the redesign initiative in Mississippi faced by central office administrators, principals, vocational directors, technology coordinators, and business managers. Interviews and relevant documents allowed data to be gathered that enabled the problems encountered to be better understood. Recognizing the existing problems should make implementing the redesign process easier for other districts that will eventually be a part of the redesign initiative.

This study serves as the basis for a procedures manual for administrators, which will be compiled to allow the implementation process to be a much smoother transition for the districts converting to redesign in the future.

I wanted to know what problems vocational directors, technology coordinators, district administrators, and principals encountered and any recommendations or changes that may ease the implementation process. This study looked at the methods that were in place to apply, purchase, design, and set up labs and receive reimbursements for the school redesign project in one school district. Suggestions are offered that will make the process easier. This study is a blueprint designed to help other vocational directors in the implementation of redesign. The blueprint can be used as a guide for other administrators involved in the redesign process. In this study, the focus was on one school district in Phase II of a redesign initiative in the state of Mississippi. This should provide information that will make the process an easier one for future schools entering Redesign.

Research Questions

As the vocational director in the Topnotch School District, I was closely involved in the redesign initiative. Working with the administration, technology coordinator, principals, and teachers, I saw first-hand the enormous task to implement the redesign initiative. The experiences encountered served as tools to help prepare other districts as they begin the implementation process. The following questions served as the basis for this study:

1. What issues have administrators faced as they implemented Redesign?

2. What changes in the implementation process would administrators recommend?

CHAPTER II

RESEARCH METHODS

Discussion of the methods of research takes place in this chapter. The sequence is the design of the research, followed by the selection of the participants. The conclusion of this chapter consists of the collection of the data and how the data were analyzed.

Research Design

The purpose of this case study was to analyze the issues faced by central office personnel, the vocational director, the technology coordinator, and the business manager in the implementation of school redesign in Mississippi. The state was currently in the second phase of the redesign process. Phase I consisted of 13 sites that completed the second year of this process. Phase II brought on board an additional 19 sites that completed their first year of the process. There are approximately 120 school districts that have not begun the process.

Glesne (2006) stated that case study data are gathered through in-depth interviewing with the participants involved. Investigating perspectives of the participants allows for a better understanding of the issues at hand. The methodology of a case study involves frameworks that guide understanding of what is already known and is needed to learn through the study itself. Case study methodology allows the researcher to find the

importance of what is being studied along with the evidence necessary to make claims on knowledge. Interviews and informal conversation with each of the participants along with relevant documents were used in this case study.

Participants

The participants for this study included the administrative assistant from the central office, one business manager, one technology coordinator, one vocational director, and the middle and high school principals for a total of six participants in the Topnotch School District. These participants were directly involved in the redesign process and were able to provide valuable information for future administrators.

Procedures

For collection of the data necessary, an Institutional Review Board (IRB) application was submitted for approval (Appendix A). Permission to conduct the study was granted in writing from the superintendent of the Topnotch School District. Consent forms were gathered from each person participating in the study. Permission was requested from each individual school principal including the high school and middle schools and the career and technical center. Once permission was received from everyone involved, data were collected and used in a case study.

To substantiate the findings, the case study used triangulation of data. According to Merriam (1998), interviews are used when there is interest in the thoughts and feeling of participants. Merriam also stated that interviews are necessary when researchers are interested in past events. Because the redesign initiative implementation started in the

2008–2009 school year, the interviewing of administrators, technology coordinators, business managers, and others allowed important information to be gathered concerning problems that arose in the implementation process.

Interviews consisted of both formal tape-recorded sessions and informal conversations with each of the participants. Each tape recording was then transcribed for use in the data collection process and the final results. Continuous communication with all involved allowed for issues to surface as we continued.

Relevant documents were collected and discussed to complete and ensure the triangulation of the findings. These documents were collected as an ongoing process throughout the research process. Types of documents that were used in this study included Mississippi Department of Education briefs, information from Mississippi State University's Research and Curriculum Unit (RCU) Web site, and photos of the labs from visits of other districts that had implemented a redesign initiative.

Data Analysis

The data analysis for this research included coding in order to identify important aspects of the information. According to Merriam (1998), coding assists the researcher in assigning a designation to various parts of the data that are collected. Once the data were collected and coded, each individual code was arranged into a logical matrix design that included domains, dimensions, and critical issues. Coding consisted of files broken into themes as they emerged during the process. The matrix was used as a tool to determine the themes and critical issues that surfaced.

The domain dealt with the critical issues of implementation as understood by those involved in the process. For the dimensions, I looked at the purpose and desired audience in which Redesign was intended to serve. For case study credibility, triangulation and the concept of emic were used. Triangulation, according to Merriam (1998), allows researchers to use multiple sources of data. Glesne (2006) described triangulation as a use of multiple data collection methods and multiple sources in order to establish validity. Validity of this case study increased with the use of interviews and relevant documents. The concept of emic allows the researcher to understand the perspective of the participants again allowing for an increase in validity. Therefore, emic is of particular importance in this study in order for themes to emerge from the administrators' perspectives.

CHAPTER III

FINDINGS AND DISCUSSION

This chapter is divided into five sections. These sections are (a) introduction, (b) definitions of terms, (c) presentation of the case study, (d) discussion of related literature, and (e) summary.

Introduction

Redesign began in Mississippi during the 2007–2008 school year. The first schools to be awarded the grant for the redesign initiative had followed a grant writing process, and 134 schools were selected to become pilot site districts. This grant awarded money to enable a district to install Information and Communication Technology I (ICT I) classrooms for seventh-graders. This new curriculum would replace the Tech Prep curriculum that had been in place in Topnotch School District. Science, Technology, Engineering, and Mathematics (STEM) classes for ninth-graders would be the other class that would be implemented during redesign. This class replaced the ninth-grade Tech Prep curriculum (Mississippi Department of Education, 2008).

Tech Prep was an MDE initiative started in 1993 designed to prepare students for careers of the future. Tech Prep was designed to integrate academics and vocational education and combines innovative teaching methods and high-tech equipment along with challenging and exciting classroom lesson planning. The focus was on creating a

strong partnership among high schools, community colleges, businesses, industry, and community. However, not all districts in Mississippi chose to join the Tech Prep initiative. Those districts that did were not given upgrade money once the technology became obsolete. The grant that districts could receive for Redesign would enable them to upgrade existing technology (MDE, 2008).

Each classroom was to have 24 students. The number of labs each district would be granted would depend on the enrollment of the district. As the second year of implementation began, Phase I districts would add ICT II for eighth-graders. It also would be during the second year that the career and technical center would begin converting its current programs to Career Pathway programs.

The purpose of this case study was to analyze the issues faced by central office personnel, the vocational director, the technology coordinator, and the business manager in the implementation of the redesign initiative in Topnotch. Allowing these individuals to discuss their experiences provided insight into the problems the district encountered in the implementation process of Redesign. The information that was obtained from conducting interviews and casual conversations can provide other district administrators in the state of Mississippi vital information as they begin the implementation process of redesign.

The case study involves the Topnotch School District and its implementation of the redesign initiative from the administrative perspective. The following is a result of interviews and casual conversations with administrative and technology personnel during

the implementation process. These conversations provided valuable information on issues faced in the district.

Definitions of Terms

Five terms that are used throughout the presentation of the case study need to be defined.

Information and Communication Technology I (ICT I) is the seventh-grade lab that replaced Computer Discovery of the Tech Prep era. These labs are to prepare students with technology literacy and workforce and academic skills that are necessary to compete in a global workforce. Not only will these students study interpersonal and self-directional skills, basic technology operations, technology communications and research tools, and multimedia presentation applications, but they will also learn word processing and spreadsheet applications.

Information and Communication Technology II (ICT II) is a course that involves preparing students with advanced technology literacy in the eighth grade. Incorporated into the curriculum are workforce and academic skills, interpersonal and self-directional skills, input applications, design applications, and graphics and Web page design, along with problem-solving and decision-making skills using technology.

Science, Technology, Engineering, and Mathematics Applications (STEM) is a ninth-grade course dedicated to preparing students for a global economy and future study in the postsecondary academic and vocational arena. Students in this course will be exposed to rigorous technology applications and tools to enhance mathematics skills by

applying concepts and theories to solve real-world problems and complete an online course.

E-portfolio are products created by learners that include a collection of digital artifacts that articulate learning, both formal and informal, as well as experiences and achievements students have had.

Career Pathways is a broad category that encompasses numerous occupations sharing a common theme. This broad theme gives students a context for connecting what they are learning across a wide spectrum of academic/technological subject areas. Aligned with the nation's 16 Career Clusters, these pathways are designed to expand options and opportunities for all students (RCU, 2009). These clusters were developed by the national Career Technology Education Foundation and are referred to as the States Career Clusters Initiative (SCCI). These career clusters were provided as a tool to be used for a seamless transition from education to career in this era of changing workplace demands. They are designed to help states as they connect CTE to education workforce preparation and economic development (RCU). Mississippi reduced these 16 career clusters to seven clusters to match the types of workforce needed in the state. From those seven career clusters, the state offers 28 career pathway courses to meet the needs of a high-demand, high-skill, and high-wage economy.

Presentation of the Case Study

Topnotch School District

The Topnotch School District consists of a lower elementary school with a principal for the K–1 side, another principal for grades 2–3, and an assistant principal that they share. The student population is approximately 1,600 with a pupil-to-teacher ratio of about 16 to 1. The upper elementary school consists of grades 4–5 with one principal and an assistant principal. The student population is about 800 with a student-to-teacher ratio of about 17 to 1. The middle school, which houses grades 6–8 where much of the redesign efforts were placed, has a student population of around 1,100 and a student teacher ratio of about 21 to 1. The middle school has a principal and 2 assistant principals. The high school consists of grades 9–12 and has approximately 1,000 students with a student-to-teacher ratio of about 17 to 1. There is a ninth-grade principal, a 10–12 principal, and 2 assistant principals. The vocational center serves approximately 400 students in eight programs. I am the director of the vocational program.

The central office for the Topnotch School District is located off campus and houses the office of the superintendent, 3 administrative assistants, a business manager, a technology coordinator, a gifted/504 coordinator, and other support staff. The central office in Topnotch School District is housed in a two-story brick building that has six large white columns across the front. This building sits on the town's main street just south of the town square, about 1 mile from the high school campus, about 1.5 miles from the middle school campus, and about 1.5 miles from the vocational center.

This case study was concerned primarily with the middle and high schools as well as the vocational center. The career and technical center is located on the campus with the high and middle schools. Much of the Redesign effort focuses on these three schools.

The middle school was built in 1955 and is designed in wings. Entering the building, there is a wing that houses the main office, gym, and cafeteria on the left and classrooms on the right. Coming off of that wing are two parallel wings. The first wing is immediately to the right upon entering the building. This is the newest wing, which was constructed in 1997 and houses classrooms on both sides. The first three classrooms to the right were the rooms designated for ICT II.

The second wing running parallel to the original wing is about halfway between the front and back door to the right. These also house classrooms on either side of the hall. Halfway down this wing, there is another wing off of it to the left. This wing contains the library on the left plus classrooms on both sides of the hall. At the end of this hallway, the last two classrooms on the right and the last classroom on the left were designated to house ICT I.

The high school is constructed in a square with the offices immediately in front of upon entering the front door. The building erected in 1974 has been well maintained. Entering the building and taking a right, the first STEM lab is the first classroom on the right. The other two STEM labs are the first two classrooms on the left.

The career and technical center was constructed in wings. It is shaped like a T. Just inside the front door to the right is the administrative office, and to the left are a classroom and shop for metal trades. Continuing down the hall on the right is another

classroom and shop facility. Between these two classrooms and shop areas is a hallway that intersects the main hallway. To the right the hallway leads to two more classrooms and shop areas. This section of the center was constructed in 1971. Continuing down the main hall, there was an addition of four classrooms in 1988.

All three schools run on a seven-period-day schedule. First period starts at 7:50 a.m. and runs for 52 minutes each day. Table 1 shows the schedule of each of the vocational programs.

In 2005–2006 the school district was in the midst of administrative change. The existing superintendent of 20 years had decided to retire, and the interim superintendent was in the training process shadowing the superintendent to learn how the district operated. Other district administrators were either retiring or moving to other buildings to replace those retiring. By year's end, the superintendent, a central office administrative assistant, and the vocational director had retired. The district's band director moved up to superintendent, the middle school principal moved to the central office as administrative assistant, and I moved from middle school assistant principal to vocational director.

The 2006–2007 school year began with all these new administrative faces in place. The new superintendent came in with enthusiasm and a vision for change. One of his visions was enhancing the career and technical center to attract more students.

During this first year as vocational director, I was focusing on learning the working of the vocational center's system. Many of my duties as vocational director were unlike anything I had done in my previous administrative jobs as high school principal and middle school assistant principal.

Table 1

Schedule of Topnotch School District's Vocational Programs

Class Period	Time	Horticulture	Technology Applications	Automotive Service	Metal Trades	Allied Health	Building Trades	Business Comp/ Marketing/Econ	Co-op
1st Period	7:50 - 8:42	Horticulture II	Conference	Auto II	Metal Trades II	Allied Health II	Building Trades II	Conference	Co-Op II
2nd Period	8:53 - 9:37	Horticulture II	Tech App II	Auto II	Metal Trades II	Allied Health II	Building Trades II	Bus. II	Co-Op I
3rd Period	9:48 - 10:37	Horticulture I	Tech App II	Auto I	Metal Trades I	Allied Health I	Building Trades I	Bus. II	Co-Op I
4th Period	10:37 - Lunch	Horticulture I	Tech App I	Auto I	Metal Trades I	Allied Health I	Building Trades I	Marketing/Econ I	Co-Op I
11:05 – Class begins									
12:27 – Class ends									
5th Period	12:38 - 1:22	Conference	Tech App I	Auto I	Metal Trades I	Allied Health I	Building Trades I	Marketing/Econ I	Student/Employee Field Work
6th Period	1:33 - 2:17	Horticulture I	Tech App I	Auto I	Metal Trades I	Allied Health I	Building Trades I	Marketing/Econ I	Student/Employee Field Work
7th Period	2:22 - 3:15	Horticulture I	Tech App I	Conference	Conference	Conference	Conference	Marketing/Econ I	Student/Employee Field Work

There were two things that were obvious to me. One was we had a CTE program that attracted only nine students the entire day. This program, Technology Applications, had a history of low enrollment according to the previous director for several years prior to my becoming director. This trend continued, and the number of students dropped annually until it was not economically feasible to continue supporting it. Our vocational programs run for two consecutive periods in the day. It houses eight different programs, and each has three classes during the day and one off period. Every program has two classes of first-year students and one class of second-year students who will be completers. This program somehow managed to stay off improvement, which is based on low program participation. MDE suggests minimum student participation numbers for each program in a career and technical education center as an indicator of program status. Failure to meet the minimum amount of students per program could place a program on improvement status. Improvement status requires a written plan of action by the district and approval by MDE outlining solutions to address the problem. This plan should address the recruitment of students in order to exceed MDE's minimum standards.

Our desire is to have a maximum of 15 students in the second-year class and 15–20 in the first-year class. We prefer a program maintain around 45 students per year. In this program, there were eight first-year students and one second-year student. This had been a trend for 4 years.

The other program that I found to be in trouble had an entirely different set of problems. It had evolved into a dumping ground for special education (SPED) students. These students may have benefited from the experience, but many curriculum

modifications were sufficiently extensive to enable them to master enough of the program standards to move to the second-year program. This meant they would have to take the Mississippi Career Planning and Assessment System, Second Edition (MS-CPAS2), the end-of-course assessment upon which a number of issues for vocational education depend.

In the vocational arena, we have seven standards upon which we are evaluated. These indicators include academic attainment, which is defined by MDE (2006a) as the academic knowledge needed to meet the challenging state academic standards. It is measured on the secondary level by the vocational completers who pass the four subject area examinations divided by the total number of vocational concentrators eligible to graduate. A vocational completer in secondary schools is a vocational student who has completed both years of a 2-year program. A vocational concentrator in secondary education is a vocational student who has completed the first year of a 2-year program and is enrolled in the second year of that program. The minimum standard a vocational program had to meet in 2006–2007 when I came to the vocational center was 82.8% of the students. Over the years, that number has changed to 80% in Reading/Language Arts and 91% in Math due to the Carl D. Perkins Vocational and Technical Act, first authorized by the federal government in 1984 and reauthorized in 1998. This act aims to increase the quality of technical education within the United States in order to help the economy.

There is also a vocational skills attainment indicator. This is defined by MDE to be the threshold level of vocational educational knowledge and skills needed to meet the

state-established, industry-validated career and technical skills standards. This is measured on the secondary level by MS-CPAS2, an annual examination given in the late spring. Skills proficiency went from 68% in 2006–2007 to 63% in 2008–2009 (MDE, 2006b).

There are three different SPED paths to high school completions. According to their individual education plan and committee, students are identified as certificate track, occupational track, or diploma track. We are here to help all students with skills they need to help them in work-related skills. These students worked extremely hard in this program, but those who were on the occupational and diploma track were required to take the MS-CPAS2 and were not performing well. Consequently, the program stayed on improvement due to academic and vocational skills attainment.

Applying for Redesign

Redesign began in 2007 by piloting the ICT I courses in select districts (MDE, 2006a). In December of 2007, MDE through the Office of Vocational Education and Workforce Development announced the availability of funds for technology upgrades that would be used to implement ICT I and STEM curricula during the 2008–2009 school year. ICT II would not be converted until year 2 due to the keyboarding Carnegie unit students receive for Computer Discovery in eighth grade. If converted at the same time as ICT I, students in the eighth grade would lose the opportunity to gain the keyboarding credit. Grant proposal applications were available for schools to complete. According to MDE, it was the intent of MDE and the Mississippi Board of Education to ensure the selected pilot site school districts were equally represented regarding socioeconomic,

geographic, and congressional district characteristics. The implementation timeline is presented in Figure 1 (Hare, 2009).

Grade/ Year	1	2	3	4	5	6	7	8
7th	ICT I	ICT I	ICT I	ICT I	ICT I	ICT I	ICT I	ICT I
8th		ICT II	ICT II	ICT II	ICT II	ICT II	ICT II	ICT II
9th	STEM	STEM	STEM	STEM	STEM	STEM	STEM	STEM
10th		Career Clusters	Career Clusters	Career Clusters	Career Clusters	Career Clusters	Career Clusters	Career Clusters
11th			Career Clusters	Career Clusters	Career Clusters	Career Clusters	Career Clusters	Career Clusters
12th				Career Clusters	Career Clusters	Career Clusters	Career Clusters	Career Clusters
12+1					Followup	Followup	Followup	Followup
12+2						Followup	Followup	Followup
12+3							Followup	Followup
12+4								Followup

Figure 1 Redesign Implementation Timeline (Hare, 2009)

The funding of the grant award would consist of recipients receiving 100% of the funding for technology upgrades and educator training for the ICT I and STEM curricula implementation during the 2008–2009 school year. Then, depending on the availability of the funds, recipients would receive 100% of the funding to implement ICT II and the secondary Career Pathway curriculum during the 2009–2010 school year.

The superintendent and I decided in late December of 2006 that we should apply to be a redesign site. This would give us a means of eventually converting the vocational programs we needed to convert and also to upgrade technology in other areas. Our district would gain approximately $450,000 in grant money.

The superintendent put together a team to write the grant proposal. These individuals consisted of one central office administrative assistant who headed the team, along with the gifted/504 coordinator who also worked in the central office, the business manager, technology coordinator, and me, the vocational director. Each individual was assigned areas of the grant to work on that correlated with his or her area of expertise. The central office administrative assistant along with the gifted/504 coordinator began the task of writing the project description, which was Part I of the criteria for evaluation of the proposal. I took Part II, which was the collaboration and support between school districts and postsecondary institutions. The three of us worked on Part III, which included the evaluation methods we would use to measure student learning and achievement. The technology coordinator and business manager were in charge of writing Part IV, which included the budget.

Communication and cooperation during the grant writing time was a major part of our success. The team met once a week to discuss issues and progress that was being made. With much hard work, research, and communication, the grant was submitted on January 29, 2008, via my personal vehicle in order to ensure MDE received the packet before 3:00 pm that day.

The district was notified in March of 2008 that we had been chosen as a Phase II site for redesign. The grant provided $75,000 for ICT I labs for seventh-grade students and $90,000 per lab for STEM, which would be a ninth-grade class. Districts would have to initially pay for the items out of their general fund, but once items had been received and entered as fixed assets, the district could then ask for reimbursements.

The number of labs a district could receive was based on the number of students the district had in each of the seventh and ninth grades. Based on the MDE lab specifications, these labs hold a maximum of 24 students, as stated in the grant proposal, and each instructor is paid at a rate determined by the number of students they have in each class. Based on the number of students we had in grades 7 and 9 and the maximum students per lab for six periods a day, we were allowed revenue to equip three labs per grade. Our plans were to replace the Tech Prep labs in these grades with the ICT and STEM labs coming on board the next year.

Implementing Redesign

We received the initial notification in March of 2008 that we had been chosen as a Phase II site. Funds for equipment and furniture were allocated the July 1 that year. There was a great deal of preparation that had to be done in getting labs ready to set up in the short period of time between March and July. After notification of the awarding of the grant, our team's next plan of action was to talk with as many Phase I schools as possible to see what issues they had faced with implementation. We wanted to see what they had done and what they wish they had done differently. Up to this point, the administrative team had done the work to get the grant. We also believed at this point it would be good

to involve the teachers in the design and setup of their classrooms. They were going to be the ones in the rooms, so we believed they would benefit from seeing possible setups and designs. Several of the teachers went with us to visit Phase I schools. These teachers also would be required to attend summer training by the RCU, so involving them at this point seemed appropriate.

Training notification for ICT I and STEM teachers began coming to me. The RCU sent out training dates via Lotus Notes, which I passed on to the teachers and helped them get registered. One of the requirements for summer training was to be IC^3 certified. IC^3 is a basic comprehensive computer literacy exam that provides teachers needed information in order to teach the new curriculum. Of the three seventh-grade Tech Prep teachers, one was moving out of district. The other two would be teaching the ICT I classes. We were fortunate to have an IC^3-certified instructor in our vocational center who agreed to teach and test all of our ICT and STEM and pathways instructors. In order to become IC^3 certified, the teacher must take three different tests, which include computing fundamentals, key applications, and living online. The district purchased a pack of vouchers (24) from the RCU for $25.00 each. The voucher enables the holder a test and a retest of the one section of IC^3. Each additional section cost $25.00 for the test and a possible retest. They began training shortly after we were notified of being chosen as a Redesign site. It took these teachers different time frames to learn the material.

Once teachers had acquired their IC^3 certification, they were well prepared to go into the curriculum training. This training consisted of a 1-week online training where they were required to obtain Certification of On-line Learning (C.O.O.L.) and set up a

Blackboard account. This training occurred in the summer so that teachers were prepared to step into these classes in August.

The technology coordinator was extremely concerned about wiring, power supplies, and so forth. In discussions with Phase I schools, we were looking for issues such as wiring, power supply, reputable vendors, setup, equipment, and delivery time. We also took a camera to bring back pictures of the classroom setup to give teachers an idea of what worked well and what did not work as well for them. This would help the teachers who did not make the trip to the other schools. Talking with these schools gave us insight into wiring, power, vendors, setup time, equipment problems, and delivery time that these schools had encountered. It was our hope to escape some of their problems.

After these visits, we took what information we had, and all of the team members were given specific items of which to take care. The technology coordinator got specifications on the equipment from the RCU Web site and contacted technology vendors for computer equipment. MDE required more than one quote on equipment that would cost more than $5,000, so it was imperative to look at different vendors for pricing. The technology coordinator also began to look at the existing labs to determine what upgrades would be needed, how to run wiring, and the source of the power upgrade. The technology coordinator made the following comment about the process:

> The biggest obstacle in old school buildings is wiring. You just don't have a whole lot of leeway on what you can do and where you can go with stuff and how pretty it's going to look. A little more modern [building] where you would have

> suspended ceilings, installations would look a lot nicer and go a lot quicker. Also lack of electrical power. When you are converting just a regular classroom that only had two outlets in it to a computer lab, it means 10 or 15 outlets. That's an issue too, and it's also an issue on your infrastructure system of your school district or that school building, so you have to look at that situation too.

The administrative assistant took the task of ordering furniture and accessories. The desire was to create an inviting professional environment. We believed the more professional and modern the labs appeared, the more students would appreciate and take care of them and the longer the equipment would last. The administrative assistant discussed the layout with the teachers. There was not a consensus as to the design they desired.

The technology coordinator indicated wiring for electricity and Internet would be easier with the perimeter seating. He also indicated the equipment would last longer not have to be disassembled and moved out of the room each time janitors waxed the floors and cleaned the room. This would also save time and money in labor for cleaning. Everyone else was in favor of the stadium seating because students would be facing the smart board and the teacher could look up and see what everyone was working on at a glance if she was positioned behind them.

Armed with this information, our administrative assistant team member decided to visit a Phase I school that had installed the perimeter seating. She did not inform the team that she was visiting this school. Upon her return, the perimeter seating arrangement

was selected without input from any other of the team members. She also made all of the furniture choices and purchases by herself.

Because this was not a part of MDE lab specs, an amendment application process had to be completed and approved by MDE to change that part of the classroom setup. The administrative assistant filed the proper paperwork with MDE to make this change. After receiving permission to proceed with the changes, maintenance began the process of getting the countertops in place. After our visits to Phase I schools, it was almost unanimous for stadium seating in the labs.

Our maintenance and technology departments handled wiring and power supply issues in each of the classrooms where the labs would be located. A few of the older classrooms only had two electrical outlets. There was a need for electrical outlets to be placed every three feet in the classroom to supply the computers. This was an issue that had to be addressed in both the high school and middle school labs. Since the high school building was much newer, there was not a need to upgrade power access in the breaker boxes. In the middle school, maintenance had to install several circuit breakers to supply the needed power for computers in the ICT I labs.

With the facilities and power prepared and ready to go and purchase orders ready for delivery to each vendor, we had done as much preparing to get started as we could. Our computer vendors had the task of running the cables to the computers for Internet access. They ran CAT 6 cables to all the labs in both the high and middle school. This was a necessity. Maintenance and technology personnel had prepared the labs for power and Internet. Labs would be ready for computer installation by August.

The problem was there was no indication as to when computers would be received. Because the computers were going on the countertops and were not separate workstations, we were ready and waiting for the computers. The redesign team, led by a recommendation from the technology coordinator, had decided on all-in-one computer units, which combined the CPU and the monitor. This would be an asset because of limited space for computers. Due to supply problems with the manufacturers, there were no single-unit computers available. The technology coordinator did not notify the committee until early August that the computers we had ordered were not going to be available. The only computers we were able to purchase were desktop computers that have a separate CPU tower. Thus, we had to reorder all new computers.

As soon as money was released to our district, purchase orders were ready to buy all of the equipment necessary. The technology coordinator contacted vendors and solicited quotes on hardware, software, and computers, along with the other necessary components of the labs. Once the vendor was chosen, purchase orders were sent. The technology coordinator was aware that the ICT I labs could receive up to $75,000 and the STEM labs could receive up to $90,000, so they had to stay within those figures when ordering equipment.

Vendors were made aware of which buildings the equipment should be delivered to, so the vocational building was not used as a supply depot. The rush was on to get everything functional by August. Furniture was being delivered. The vendor that provided the furniture was on hold waiting on maintenance to move out so they could assemble tables and chairs in the rooms where they were supposed to go. Because we

chose countertops, there were only a few items to assemble in each classroom. This was easily finished in two evenings after school for every lab. In ICT I and STEM, there were six tables per class, a teacher workstation, and security cabinets. That came to 36 tables, six teacher workstations, and six security cabinets. Two crews of three men each assembled all this furniture in two evenings working about six hours each day. The classrooms were coming together very quickly, but there was no notification of computer delivery yet.

The 504/gifted coordinator took care of ordering the books. While ordering books, she gave the vocational center as the delivery spot so we could stamp each book and assign a book number for MDE inventory. After receiving the books, we realized that this would have been a much easier process having had them sent directly to the individual buildings where they would be housed. Each building keeps an inventory of the books they have on hand. They also have a book stamp and issue each book a number. We used our in-district courier to transport these books to their building so this could be done.

An issue that developed at this time was the loss of a teacher for one of the ICT I classes. Due to that teacher's transferring out of the district, we found ourselves starting school in August with an untrained teacher in ICT I. This teacher was registered for ICT training during the school year. This teacher met training classes on weekends to fulfill the certification requirements that all ICT I teachers received during the summer. She was enrolled in IC^3 tutorial classes after school during the year. She was required to meet the same requirements as all other ICT I teachers.

Once school began in August, we were still waiting on computers for both ICT I and STEM labs. Teachers had to use computers from the old Career Discovery and Technology Discovery Tech Prep initiative labs. None of the new software could be utilized with the outdated equipment, so teachers were rushing around to collect resource information to teach as much of the curriculum as possible. It was October before the new computers arrived.

There were a couple of instances when equipment was delivered to the wrong building. We chose to involve only three of the committee members in the ordering process to ensure that the majority of the deliveries would go smoothly. Books, on the other hand, were a different story. The textbooks that were ordered for each lab were delivered to the career and technical center. Our in-school courier service had to move the books to the correct classroom. The district employees a person to deliver interoffice mail and equipment. This person was available to transport books as needed to the correct schools.

Once the equipment, books, and furnishings are delivered to the respective classrooms, reimbursements of funds that have been allocated for each lab can begin. The vocational education program has a reimbursement process that can be very tedious and confusing without proper organization. Lotus Notes is the computer program that the vocational education component of MDE uses to communicate with career and technical centers across the state.

The process of reimbursement cannot begin until the equipment has been received and the local school board has approved the purchases. Once this took place, I could

begin the line item ledger sheet that is sent via Lotus Notes for each individual lab to the vocational directors. This program allows career and technical centers in the state to do everything from communicate with each other and MDE by e-mail to submit budgets to keep documentation of all transactions that take place to MDE within one computer program.

The process of reimbursement can be extremely confusing. The Office of Vocational and Technology Education (OVTE) Policy and Procedures Manual has a step-by-step description of how to proceed. This is an example of how I accessed the ledger in Lotus Notes. I began by clicking on the OVET Planning and Reimbursement box located on the Web site home page. This opens to a page showing the school district and the district plan under that. Because MDE already has lab plans and equipment lists for the individual labs, there is not a district planning process involved. Clicking on My Reimbursement and "all with no plan" shows each individual item that can be purchased for each individual lab.

I had to have a list of items bought from each individual vendor along with the serial and model numbers before entering information into the ledger. The item description, manufacturer, purchase order number, claim number, and check number along with date the item was paid for are all necessary input information. To begin the reimbursement process from "My Plan with no detail," double-clicking on item one brings up one particular item on a capitalized or exception item screen. There is a place to click that says, "edit document, close window, or go back." Clicking on "edit document" will allow the input of the information mentioned above. The manufacturer can be looked

up by scrolling down the page. Once that information is entered, the amount being requested and the actual price of the item are entered. Usually these are the same numbers. The correct amount must be entered. The program automatically calculates the money that is available and deducts the amount requested for reimbursement. Double checking work is a necessity. Scrolling back to the top of the document, in the top left, there is an area that says, “submit for reimbursement, close window, save and close window, and go back.” Information can be saved and closed and another item moved on to so that everything can be submitted all at once, or each individual item for reimbursement can be submitted. If there is information needed that has not been entered into the system will notify the user. Also, the amount reimbursed cannot exceed the total amount that is available for reimbursement. The system cannot detect incorrect information or incorrect prices, so it is imperative to check calculations thoroughly. Once the item is submitted, there is no more control over the information. Any changes after submission have to be done by MDE. One important feature is to be absolutely sure that if the “save and close the window before submitting” option is selected, the user goes back and submits. It has to be submitted, or reimbursement will not be received from MDE. There is a deadline for reimbursement requests, and that needs to be kept in mind along with the length of time necessary to input information.

Any equipment that exceeds $500 is a capital item. It must be tagged with an asset label. Other items that may be under $500 but could be stolen, such as cameras and scientific calculators, must also be labeled. Once all items have been requested, MDE will approve items individually and send modification via Lotus Notes. Each capitalized

item will be assigned an asset tag with a tracking number. The labels are sent to the vocational directors in rolls of 1,000 and are used for fixed asset inventories. Once notification has been received from MDE that these reimbursements had been approved, two copies of this notification were made. I kept one copy and sent one copy to the business manager. My copy was for asset tagging, and the other copy was so the business manager would know what had been ordered and reimbursed.

To tag assets, a copy of the purchase order with the serial numbers on it and the lab in which the equipment is located are needed. This is especially helpful with multiple items such as computers and buildings with multiple labs. It is also helpful to be in the location when equipment is being unboxed to be able to locate where the model numbers and serial numbers are located. Also, it is helpful to have a magnifying glass and small LED flashlight to help read this information. This can be a very time-consuming process, so I made sure I had someone to help me when I began. The reimbursement is all done by electronic transfer. The business manager must have a copy of the purchase orders and electronic transfers to ensure he or she receives all of the money that can be reimbursed. We had a deadline for reimbursement requests. In the first year of Phase II, the deadline was mid January 2009 to have all equipment received and reimbursement requests submitted.

In the spring semester of Year 1 of our Phase II implementation, we were asked by MDE to determine which vocational programs we would convert to pathways in Year 2 of Phase II. Also, in March of that semester, MDE notified us we could implement one of our pathways if we could get everything ordered and reimbursement requested by the

end of June of 2009. There were no implementations scheduled for this time frame. This was provided from money that had not been spent by other districts during the 2008–2009 fiscal year.

As July of Year 2 approached, due to economic shortfall in the state, money was not flowing into education, so the legislators had not settled on a budget for any educational endeavor. Thus, we were in a "hurry up" and "wait" mode. We had everything ready to get started on ICT II labs and half of our existing vocational program conversions. When legislators allocated money for Redesign, the ICT II labs had been cut to $50,000 per lab. Because of these economic shortfalls, MDE had reduced the refund districts would receive by $25,000 and eliminated some of the lab equipment that was on the specification worksheets. We were not allocated any money for converting any of our vocational programs to pathways. There was no money allocated for any pathway conversions through MDE during this year.

Lessons Learned and Suggestion for Other Districts Implementing Redesign

Mississippi high schools must be redesigned in order for students to compete in a rapidly changing global environment. Utilizing grants such as the 21st Century School Redesign Grant, districts can not only provide upgraded technology, but also accomplish goals such as dropout prevention, improving inadequate mathematics and science skills, and beginning to align workforce training and college readiness of students.

The decision to embark on acquiring the 21st Century Redesign Grant was a step ahead for the Topnotch School District. What we have acquired from the grant has given our students an opportunity to prepare themselves for employability in the new global

economy. Although the process went very well, we learned a great deal from some of the things we did.

A good team of district employees is the first step to success. Members should be chosen based on their expertise in certain areas. For instance, the technology coordinator is essential for expertise in the technology equipment that will be purchased. The vocational director is also a must due to experience he or she has with reimbursements and budgeting though Lotus Notes. The leader must be someone who is well organized and has access to the superintendent. That person will need to keep everything moving forward and keep the superintendent informed of the progress. Communication must flow openly from all members, and the team leader must coordinate this effort.

The vocational director is an important member of the team. Once the decision is made to go through with the grant writing process, the vocational director will receive much of the information via Lotus Notes. The technology coordinator is also a needed member. His or her expertise with equipment is a great resource, and this person will have the contacts with reputable vendors.

According to Kang (2004), there can be a tradeoff between the sluggishness in arriving at a group decision verses the greater accuracy of decision making due to the pooling of information. In our committee we created a standing committee that had a fixed set of members, all of whom were available simultaneously for meetings. Our focus was on the slowness of group decisions verses the greater accuracy of decision making because of the pooling of information from several sources. The highest value will be realized if all members' signals are averaged prior to a decision.

There are several possibilities why a large committee may have a greater tendency to delay making a decision according to Kang (2004). First, there may be more political maneuvering. Second, there may be a scheduling problem. The larger the group, the more difficult it is to schedule meetings that all members can attend.

We did not have the luxury of time, so we found the six-member committee to be optimal size for our purposes. The stakeholders were chosen based on their expertise and level of involvement in the implementation process. After the team is assembled and the grant writing begins, work should be assigned according to the individual's expertise. The main thing is to allow the technology coordinator to take care of the technology equipment. The vocational director will have access to equipment specifications and lab specifications from Lotus Notes to help the committee with those areas. When writing the grant, school district personnel should be prepared to do what they say they are going to do. For instance, if the district states it will assess the students in STEM with an IC^3 test, the district is going to be responsible for any costs for the testing.

Although we met frequently during the grant writing process (at least once a week), we stopped meeting regularly after sending in our proposal. After receiving notification of the grant award, most of our communication was done over the phone or via messenger or e-mail. Communication throughout the process is important, and face-to-face meetings seem to work better to keep everyone on the same page. Scheduling a weekly meeting can help eliminate problems from arising later or enable the committee to handle the problems in a timely manner.

In the grant writing process, other schools that are already a part of the redesign initiative should be contacted. We found that they are more than willing to share information to help with this process. They can help answer questions and even provide examples of what they did and how they went about writing their grants. There are even consulting firms available for a price that will walk clients through the process of grant writing. The value this grant provides students is well worth the time and effort a district can put into obtaining it.

In the ordering process, the vocational director needs to stay in constant communication with the individuals doing the ordering. The fewer people involved in the actual ordering process the better. The technology coordinator is the logical person to order the technology equipment and software. The problem here is being able to match what was purchased with the line item lists on Lotus Notes that MDE sends out for districts to request for reimbursements. For best results, the vocational director should be in charge of ordering everything else.

Upon notification of being selected to receive the grant, the committee's work has just begun. The best way we found to decide how to set up the labs was to go and see other labs in Phase I schools in action. All the districts we contacted were very proud of what they had and more than accommodating in helping our districts get set up. We visited several Phase I school districts and talked with teachers and administrators. They provided a wealth of information on what they had done differently. Each district is different, so the key is adapting what other districts have done to fit individual district needs.

Using the expertise of the technology coordinator and whoever is responsible for purchasing furniture in the district should make finding reputable vendors easier. Most districts already have vendors with whom they are comfortable and who provide them with great service. There is no need to change vendors when satisfied with the ones already in place. Still, there are many vendors who were involved with Phase I and II schools that know the process and can help with needs.

The teachers and building principals should be involved in picking out the furniture for their buildings. When ordering recommended equipment, having items delivered directly to the building in which they are going to be set up is easier. This eliminates having to move them around. Also, any furniture purchasing should be done so with the understanding that the seller will assemble the furniture and set it up for use. Some furniture companies use a program that can take the dimensions of existing rooms and place the furniture where it best utilizes all the space available. Although the opinions of teachers and principals are valuable, the fewer individuals involved in the actual ordering process the better. Making sure the delivery address is to the schools where it will be utilized will make the delivery process easier.

As soon as the grant is awarded, having the technology coordinator notify the computer vendor and find out what arrangements can be made to work out a timeline is a necessity. The sooner these computers are ordered, the more likely it is that they will arrive on time. Some vendors may go ahead and order the computers prior to the money being released on July 1. Some districts have enough revenue available to order them prior to money being released and then replacing funds once the transfer is received from

MDE. If neither of the options is available, a district should be sure that the purchase orders are ready and waiting to be delivered as soon as the money is released to the district. Time is of the essence with getting these computers in and operational.

Once the equipment starts coming in, the equipment that is on the Tech Prep and vocational programs' existing asset report will need to be assessed. Much of this equipment will be outdated or unusable. Other equipment may be in good condition. Since these programs are being phased out, the equipment must be transferred or salvaged. Several options available for relocating the equipment are available.

The equipment could fit well with the new program. In this case, a transfer of assets would need to be done within the district via Lotus Notes. This will simplify moving the items from the old program to the new and existing programs. This can also be done if equipment needs to be transferred to another existing program in the district. These items will then show up on that program's asset report and must be taken into account.

There is also a provision in which the assets can be donated to another class in the district outside the vocational umbrella. To do that, the district would need to assign the item an asset tag and remove the vocational tag. Then it shows up on the district asset report but is removed from the vocational asset report.

If the equipment is in good working order but it is no longer needed in the new program, other existing programs, or in any subject area in the district, it can be advertized for transfer to other vocational programs via Lotus Notes. There is a district-to-district transfer process that adds the asset to another district's asset report and takes it

off the transferring district's asset report. The asset can then be transferred to another school program.

If after the equipment has been advertized for transfer and there is no other districts that want to transfer to its center, the equipment may be returned to MDE's warehouses. If the items are out of date or no longer in working order, they may be salvaged. MDE requires the district to remove the asset sticker from the item and destroy the item beyond recognition. Then these items may be removed to the landfill or dumpsters.

Keeping paperwork and asset lists accurate can eliminate a major mess after the conversion is complete. Keeping the process current is most important. Once items have been removed or transferred, the new items need to be reported on the new program's asset report.

There are two different ways to proceed from here. Reimbursements can be handled after obtaining the information on the equipment needed from each lab in each program, all the information from every program can be obtained before starting data entry. The key is setting aside enough time to input information for each class so there is a well-defined stopping point. Keeping good records and staying organized are essential in the process. Reimbursements are the step that can cost a district money.

Once items have been purchased, received, and set up, the reimbursement requests can begin. This is a long, tedious process that can take hours, so you have a block of time without disturbances will need to be set aside. Several of the items needed to start this process are serial numbers, model number, purchase date, and number and

building and room location. Much of the information will not change, so it will seem repetitious. Each capitalized item or item costing $500 or more will have to be entered into the system and assigned an asset number for tagging and inventory.

The best way to input this data into Lotus Notes Equipment Management System is to take one room at a time. Each item must be entered to get reimbursement, and because of the amount of information to be entered and the number of items to be reimbursed, the chance of error is great. Also, once an item has been submitted for reimbursement, there is no way to change information other than contacting MDE and having MDE deny the request and send it back. Then adjustments can be made. The best way is to input the information and then at the top of the page, click on “Save and close window.” This feature allows moving on to the next item without submitting the previous item for reimbursement. This also allows checking each item for accuracy before submitting.

Most reimbursement requests are for capitalized items or items over $500. Some items will be considered capitalized even if they cost less than $500, such as cameras. All these items will require an asset tag that will be issued each item by MDE. The information inputted during the reimbursement phase will be used to identify each item and where it is located.

Non-capitalized items are items such as head phones and computer software. These items require less data entry but can still be a big issue. They do not show up on fixed assets, so they need only the price per unit and the total price spent on all of those purchased. MDE is also interested in knowing the total cost of each lab, so each lab, but

not each item, must be done separately. The problem that can arise is with the software and/or the dollar figures inputted. Putting in the dollar figures is just a matter of being careful to input the correct figures for the unit price and the correct amount being requested for reimbursement. The system calculates the total amount that has been spent and will not let the user go over the total amount issued from MDE per lab, but it will let the user enter an amount under request. The request must be accurate to receive the right amount to recoup all the money the district has spent.

On the other hand, software poses an entirely different set of issues. The main issue is figuring out what was ordered that matches what is on MDE's line item reimbursement sheet. The easiest way to do this is to sit down with the technology coordinator and the invoice for what was purchased. The technology coordinator can look at what MDE has on its line item reimbursement sheet and match it to what was purchased. Reimbursement for every dollar the district has spent should be requested.

Once all data entry has been done, the work should be checked. This information is going to be used for reimbursement and fixed assets inventory. Accuracy can save time when MDE performs an audit on inventory. When all information is verified as correct, it can be submitted to MDE for reimbursement. This will move the item on the MDE line item inventory from processing to pending to reimbursement and then to approved.

This is another reason to take time to make sure the inputted information is correct. Once MDE has approved the reimbursement request, it will send the district notification. Each item is approved separately, and notification and fixed asset numbers are sent back via Lotus Notes. The business manager will be the one who is responsible

for the checks and balance system. He or she will make sure that every dollar spent by the district is reimbursed by MDE.

The personnel at MDE OVTE who are involved with reimbursements are the most helpful people at MDE. The system, on the other hand, has some room for improvement. The business manager at Topnotch School District made the following comment:

> The process for asking for reimbursement through vocational department [is] antiquated, outdated in my opinion, out of date for the times. To request anything through that system, you have to request by individual items on an invoice. What it does, it turns a process that doesn't take much time into a long, drawn-out process, and you are going to be audited anyway. If you are being monitored, can be monitored after the fact. Suppose to know what we are doing. I think the system to request the money is a slow, antiquated system that slows things down, bottlenecks thing. And I'm not doing it. I'd almost rather do it because I know what money has been expended, and when he pulls that I want that report of my actual expenditures to show my actual request for reimbursement and it doesn't always happen as we found last year. Last year information was put into the system. You not only enter it into the system, and this is each individual item, and you say you purchase 100 computers. The likelihood of making an error putting the same info over and over again except for a few details creates a large potential for error. So, we had a situation where there was some requests that were not submitted, and I never knew it until it was too late. The whole process is outdated.

> Here is the thing I realized, that the vocational department is wanting to keep up with and maintain an inventory of these items. Every school has a fixed asset system; we are required to have it. I realize they are different and want to have it all under their wing. The system is just so antiquated. I am not meaning this ugly in any way towards anyone. The situation that happened, the OVTE reimbursed a couple of thousand dollars we did not get when reimbursement we failed to submit. They didn't have to do that. They are as good a people as there are to work with. They go out of their way to help you. It's not the people; it's the system.

The staff at MDE is very accommodating in working with districts, so the redesign initiative's committee members get to know them well. The thing that they do not have much sympathy for is waiting until the last minute and trying to work to get everything done. Everything should be kept current to help eliminate mistakes.

With reimbursements done and approved, assets are ready to be tagged. With a copy of reimbursement approvals in hand and a roll of asset tags issued through MDE and OVTE, the committee can begin the process. Collection of information should begin as soon as the equipment is set up and all installation people are out of the way. A computer vendor can provide a detailed list of items with serial and model numbers. Each individual item should be located. A list of buildings and rooms containing equipment is needed. Much of what will be needed in the reimbursement requests will be duplicated on each item, data entry should be careful and correct.

Once started in the process, enough time should be set aside to do as much as possible. Starting and stopping can create an environment for mistakes. We found it best to do one room at a time before stopping. To get the needed information from the computers and other equipment, it is best to have two people doing this job. One can locate the numbers on the computer and read them out to the other who is finding the on the invoice sheet. Identifying which room equipment is in by using different colored highlighters can make this process much easier. It is also beneficial to do one program at a time. For instance, in Topnotch Middle School, we did ICT I first. Computer equipment for room No. 1 was highlighted in yellow. Our code at the top was ICT I, Room #1, and it was highlighted in yellow. This way, if we had to move on to some other task, we could come back and pick up where we left off without losing any time.

Two copies of this invoice with the color-coded scheme should be kept so that if something happens to one, a backup copy will be available without having to start over. Getting the information is very distracting, so it is best done when there is nobody else in the room other than the teacher who can provide items that may be locked in secure storage cabinets, such as cameras. With adequate help, there should not be any problem getting all items identified and recorded in an hour or the approximate planning time of the teacher. If the teacher is not available, a follow-up visit may be necessary at the end of the day or in the morning to get items that are secured and unavailable without the teacher. This eliminates distractions to the teacher and students during instruction time.

Each item is tagged based on its serial number, and an LED flashlight and a magnifying glass may be needed to determine the correct items. It is recommended by

MDE to tag these assets in a place that will not be affected by students. They will also need to be easily accessible in the event of an asset audit. The location should be a place where no information is being covered on the item or blocking a ventilation outlet to place the sticker. The potential tag area should be wiped to eliminate dust and stick the tag without wrinkles on the equipment surface.

Possibilities of Redesign

There are infinite possibilities for the redesign initiative. The work of schools is becoming more complex and demanding, while the organization of schools remains static and rigid. Topnotch School District is striving to adjust its schools to meet the needs of all students.

Educators across the state all agree that they are losing far too many students to dropout in Mississippi. The numbers are staggering, and accountability is making educational stakeholders stop and look for ways to reach these young adults. Accountability schemes can come in many forms such as high-stakes student testing, district-led closure, or restructuring of low-performing schools and state takeovers of low performing school districts. We are looking to be proactive in dealing with what motivates students to stay in school and learn. Unfortunately, schools and school systems were not designed to respond to the pressure for performance that standard accountability brings, and their failure to translate this pressure into useful and fulfilling work for students and adults is dangerous to the future of public education.

Standards and accountability involve state legislators, advocacy groups, and other professional organizations. Their basic belief is that schools like other public and private

organizations should be able to demonstrate what they contribute to the learning of students. Students should also engage in steady improvement of practice and performance over time. Many factors and challenging conditions such as extreme poverty, unprecedented cultural and language diversity, and unstable family and community patterns make this a daunting task for any school district.

To many, redesign is seen as simply vocational redesign. Topnotch School District is taking this opportunity to redesign not only vocational with the pathways but also academics and how students are taught. As long as we have enough flexibility in what we need to do for all students, we feel this will be effective. What works in Topnotch School District may not be as effective in another district. However, as we move through this changing process, districts can get ideas from each other.

The Redesigning High Schools for the 21st Century Workforce grant gave us another opportunity to ensure success for our students. The implementation of the ICT and STEM labs as well as converting career and technical programs to Career Pathways was one of the components of our school district's vision of redesign. Topnotch School District started a version of its own redesign three and one half years ago. Although much of what we began doing is showing some results, the potential for long term change is evident. The dropout rate decreased approximately 11.95% over the last 3 years. These are students who would have been lost. We feel like when these students who are presently in the ninth grade become seniors, there will be a tremendous improvement.

Our philosophy leads us in a direction that we can teach students without them knowing they are being taught. The idea is we wish for every student that comes through

Topnotch School District to feel wanted and that he or she has someone to depend on for help. Every student will be assigned a mentor teacher who is responsible for him or her, someone that cares for that student and his or her education regardless of the student's past and present academic record. This is not something unique to Topnotch High School, nor is it new to the state, but it is something we are going to put much time and effort into to help our students work through some hard times.

Another issue we are tackling in our district is multiple exit points for graduation. As educators, we agree that all students learn differently. They have different interests that motivate them. With the redesign initiative, we are creating an atmosphere that is improving technology for our students and giving them different pathways of vocations they may be interested in as a lifelong skill. We have students going in different directions of interest, but they all have the same path back to graduation. We want to look at different ways for these students to be able to graduate. Many of the students who wind up as dropouts can be successful with other means of graduation. Some opponents of multiple exit points indicate this is watering down the education process. We at Topnotch School District feel this is simply a means of giving students different ways of being successful.

We are looking at three different exit points from high school, the first of which is the traditional diploma track. This could be the Mississippi Scholars diploma, which prepares students to enter into an institute of higher learning. These students will take the high-end curriculum of courses such as calculus and physics. They would be required to

acquire a total of 24–26 credits which could prepare them to obtain an Institution of Higher Learning (IHL) degree in a professional area.

The standard diploma would require 24 credits, or students can opt out with 21 credits with an optional three assessments. The options could include scores on the SAT or ACT. For instance, if a student had a low score on the state test in biology, there could be some leeway as to a high score on the same student's science part of the ACT for graduation purposes. This, coupled with an E-portfolio, is beginning to help students who may be having trouble passing a variety of state tests.

The third option is a vocational diploma. This could be a minimum of 21 credits with the opt-out option. Plus, the student would have to be a completer in a vocational two-year program and pass the MS-CPAS2 in his or her program content area. This could be in lieu of passing the SAT or meeting the ACT minimum score.

These different avenues can provide students with a variety of possibilities. It will take into account students and a variety of learning styles. We are aware that not all students should be preparing to enter college.

One of our first ideas was to start an extended school year. Seventh- and eighth-grade students who in the past were moved on automatically and were behind a year or two years were placed in a challenge track. Those students were placed in smaller classes to give them more individual work. These kids in the past had entered the ninth grade without the necessary skills to survive and simply dropped out. No longer will these students be simply promoted, they must exhibit the necessary skills in the summer extended year program, or they have to stay behind to catch up. These classes also ran

through the school year to prevent older students from being in the regular population with the younger kids.

The high school calls its program TIPS, which stands for Targeted Improvement Path Students. This was designed to catch those students who were falling behind at an early stage. While putting the TIPS program in place, we also realized there were a large number of students not passing the SAT. We wrote the 21st Century After School grant to keep these at-risk students involved in their studies. This program included vocational skills such as auto service, metal trades, culinary arts, pottery, podcasting, marketing, and building trades. The philosophy was to get these kids involved in something they enjoy doing and at the same time tutor them in areas in which they may be deficient.

Another component of our redesign was getting parents and community involved. We expanded the present parent center and partnered with a couple of churches to get more parental involvement. There were meetings arranged and advertised on the local television station and in the local newspaper.

We then took a look at our General Education Development (GED) program. The GED Option program targets students who have the ability to complete high school requirements but for a variety of reasons are behind in the credits needed to graduate with their class and are at risk of leaving school without a high school credential. GED provides certain students a second opportunity to stay in school and acquire the necessary high-school-level knowledge and skills to pass the GED tests and to earn a high school credential.

Policies of the GED Option program are defined through written policies that are approved by the local school board. Application packages are completed and submitted to MDE annually. A committee of administrators, counselors, classroom teachers, and support staff review and approve referrals for the placement of students in the GED Option program.

To participate in the GED program, students must be at least 16 years of age and at least two grade levels behind or have acquired less than four Carnegie units. These students must have taken every opportunity to continue in course work leading to a regular high school diploma. The committee recommends student placement, and an appropriate Education and Career Plan is developed to address the curriculum and instructional needs of each student. Students are then assessed by using the Test of Adult Basic Education (TABE).

In the beginning, Topnotch only had one option for students who wished to go the GED route. We had our GED program located on the alternative school campus. There were concerns that parents did not allow their children to go the GED route because of its location, so some modifications were made. We moved two teachers to the old Central Office building, which is located behind the high school and adjacent to the vocational school to house another GED program. The GED program provided students with one of three different directions of study.

Students could take GED Skills, which allowed them to work on their academic classes in the morning, and in the afternoon they would come to the vocational center to obtain instruction in one of the eight skills programs we provide. The GED Job option

provided students with academic instruction in the morning and an early release after lunch to go to work. The last option was for morning academic instruction and afternoon tutorial instruction in areas in which they are deficient. All three of these options are preparing students to pass the GED exam. The GED program at the alternative school still provides a function for those students who need a more structured and disciplined environment.

Related Literature

The lack of knowledge of the Redesign process by the participants in this study emerged as a common theme. Garn (1999) stated that policies are not self-executing, which is contrary to the desires of federal, state, and local policymakers. He further stated that simply because legislators have specific intentions for a policy, it does not guarantee the policy will be implemented the way it has been described. The 21st Century High School Redesign initiative was put into motion by MDE with little clarity as to how each district would implement the initiative. Other than knowing Topnotch applied for and received the grant, only three participants knew what the Redesign would encompass.

To further substantiate lack of knowledge in implementing a program, McLaughlin (2005) stated that implementers of new programs and policies do not always know and/or understand the hows and whys of a policy or program being implemented. Thus, implementers do not always do as they are told, nor do they always maximize the policies' objectives. McLaughlin stated that those that are responsible for implementing new programs at different levels sometimes become frustrated and resistant. Because there is a lack of knowledge, the entire program could fall short of expectation.

The complexity of the reimbursement of funds from MDE and the acquiring of those funds was a theme that emerged from both the vocational director standpoint and that of the business manager. Because MDE uses the computer software program Lotus Notes as its means of communication with career and technical centers, it is imperative to look at the history of Lotus Notes and research conducted on the program to fully understand its complexity.

According to Karsten (1995), Lotus Notes is acknowledged to have difficulties among its users. She noted that users of group software need to form mutual conceptions of the cooperative purposes and uses of this application. Lotus Notes, according to Karsten (1995), evolved from the idea of a distributing conference application to a bulletin board application, and then to a sharing service that provided information using complex databases. Functions of the software include electronic mail, an editor, full text search capabilities, and macros to run background operations.

Karsten (1995) noted the following:

> Lotus Notes differs from other server software in two ways. The replication mechanisms allow for distributing work while maintaining facilities for cooperation. Then the Notes documents act as a carrier of several types of data that can be included in a document or linked to other databases. (p. 6)

She also stated that Lotus Notes is often seen as difficult to understand and describe. The implications from her research show how different the program is when left up to the interpretation of the user. This research substantiates the frustration that both the vocational director and business manager felt when talking about the program.

As stated in an earlier review, according to the Minneapolis Public Schools (2010), bringing the redesign to the attention of parents, students, teachers, principals, and the community and sharing and discussing the elements involved would help to ensure the potential academic impact of the redesign.

Summary

This case study dealt with Topnotch School District and its implementation of a redesign initiative from the administrative perspective. The purpose of this study was to determine what issues administrators faced as they worked through the implementation process and suggest changes that would make this process simpler and more cost effective. These questions were answered with the use of casual conversation, interviews, and related artifacts. The results of interviews and observations of the participants answered the following research questions.

1. What issues have administrators faced as they implemented Redesign?

The Topnotch School District implemented its redesign initiative after the awarding of the 21st Century School Redesign grant. Redesign committee members embarked on the implementation process by visiting schools from Phase I districts to decide on possible classroom layouts. As one of 19 Phase II school districts, we relied on information from Phase I sites on what had worked well for them and things they would have done differently.

There was very little knowledge in the committee as to just what Redesign was. The administrative assistant felt it was just a fad and would soon fade away. The technology coordinator had no idea what its purpose was but was grateful for the

technology upgrade. The middle school and high school principals did not care because it was not a part of high-stakes testing. The business manager just wanted to make sure we were reimbursed for all that we had purchased. I, as vocational director, along with the superintendent, saw it as a way to change education from the way it had been done for many years.

2. What changes in the implementation process would these administrators recommend?

The reaction to the redesign initiative from the six participants interviewed in this study ran a wide range of reactions. The superintendent felt like it was a great opportunity to redesign schools and change how we have viewed education in the past although he felt that there was very little knowledge of what redesign is. Our administrative assistant believed that the redesign initiative was a fad and would soon pass. The principals at Topnotch Middle School and Topnotch High School both were unconcerned about ICT I, ICT II, and STEM because it was not directly related to high-stakes testing. The business manager was concerned about the large amount of money that was being spent without his being directly responsible for the purchasing but with him directly accountable for its return. The technology coordinator and all of the individuals interviewed indicated that the technology upgrade was a wonderful addition to the schools.

As can be seen from these committee members, we were all working in the same direction but with different energy levels. On the front end of the initial formation of this group, communication was at a high level. Once we were awarded the grant, members went off in their own directions doing their own things, and communication among the

entire group suffered. It is our opinion that our level of communication should have remained consistent.

The major issue the business manager and I faced was the system we used for reimbursements and asset management. Lotus Notes, the system we used for this, is a wonderful tool for statewide communication but has a lot to be desired as far as reimbursement and asset management goes. Although there is a possibility for other individuals to receive a “view only” license to Lotus Notes, it is not something MDE advertises or seems to encourage districts to do. Also, the process of data entry for reimbursement is so repetitive that there are enormous possibilities for mistakes. The individuals at MDE who work in the Office of Vocational Education (OVE) and Work Force Development (WFD) are extremely helpful, but the thought is that the Lotus Notes system is antiquated and could use an upgrade.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes a summary of the study, conclusions drawn from the study, and recommendations for future research.

Summary

Mississippi's attempt to revamp its failing school system is under way. Redesign was the new initiative introduced in Mississippi in 13 schools in 2007–2008. In Year 1, Phase I, ICT I replaced the seventh-grade Tech Prep class of Career Discovery. Also, STEM was introduced in the ninth-grade Technology Discovery labs. Year 2, Phase II, brought about ICT II replacing the eighth-grade Computer Discovery class and began the conversion of the existing CTE programs to Career Pathways that are aligned with the states' 16 Career Clusters.

The initiative is designed to prepare students to be competitive in the ever-changing workforce or to continue on a more rigorous and relevant college curriculum. Mississippi follows several other states across the nation in an attempt to close the achievement gap by keeping students in school to create a more competitive nation. This study examined the issues faced by Topnotch School District administrators during the application and implementation process of 21st Century School Redesign. In this study, the superintendent, technology coordinator, administrative assistant, high school

and middle school principals, business manager, and vocational director perspectives on issues they faced and their knowledge of redesign were examined. This was done through a qualitative research method in the form of casual conversations, formal interviews, and relative artifacts designed to answer the questions.

Communication was a big issue as we worked through the implementation process. We met regularly during the application process, but as soon as we were notified we had received the grant, the meetings began to cease. Members were chosen based on their expertise, and they went off in their own directions doing their own things.

The business manager was concerned with the reimbursement process. He was uneasy with being responsible with the money and having very little hands-on dealing with what was bought and when it was being requested for reimbursement.

This study sought to gain insight into issues faced by administrators during implementation of a redesign initiative at Topnotch School District. The findings of this study indicate that there was little understanding of the redesign initiative as a whole. Communication was a major issue that arose as a very important part of the process from start to finish. The issues that were encountered during the process of this redesign initiative can be used to help other districts as they begin the redesign process.

Conclusions

One conclusion from this study is that redesign has not been extensively sold to the public or to education. The lack of knowledge of the educational institutions can be contributed to a lack of representation from MDE. There is also a lack of disseminating information within the district itself. Although there may be a vision of Redesign by top

administration, the vision is not shared with those who are responsible for implementation. Because teachers are the ones who will have the responsibility of carrying out any changes that occur, they should be involved in the development of the vision. Likewise, the principals will be responsible for making the vision successful, so they also need a seat at the planning table. Even the participants of the committee had very limited knowledge of the purpose of redesign.

Another conclusion that was drawn from this study was the importance and necessity of communication throughout the process. Although in the planning and application stage, the line of communication flowed between all group members continuously, after the awarding of the grant, this diminished greatly. Members were chosen because of their expertise and went off in their own directions without the open line of communication as before.

Another conclusion was that the system we used for reimbursements was out of date with the times. The time required and the data entry necessary for reimbursement are a breeding ground for mistakes.

Finally, the redesign grant started in our district as a way to receive technology upgrades in our CTE programs and old Tech Prep labs. What it has evolved into has changed how some of our top administrators see the programs and use the resources available to enhance the high stakes testing program.

We looked at redesign as upgrading technology to help our students move with the times. We were given little or no direction. The little bit we did know about Redesign came from what other states were doing.

What we began to realize as we worked our way through this initiative was that the possibilities of School Redesign were numerous. MDE provided districts with as much flexibility as they needed to make those districts work. What works in some districts may not work in other districts.

Recommendations and Implications for Future Studies

The vision of the top administrators is a must when change is necessary. A vision is worthless if it is not shared with the teachers. Not only must it be shared, but also the teachers must be a part of the planning process and buy into the vision. In addition, the concept of redesign has not been sold to the public nor education sector of society by MDE.

Once the district receives the grant, the work has just begun. Communication needs to continue throughout the implementation process. The open flow of communication needs to be sustained to ensure this takes place. Although the duration of the meetings may reduce, the frequency should stay the same as before. A once-a-week meeting at a regular time is a recommended for ultimate communication.

The system of reimbursements and asset management is something for which to plan. The task should be broken into segments due to the time necessary to complete each task. Compiling information from equipment should be done one lab at a time until all information has been gathered. This most likely will be done during the school year, so every precaution should be taken to protect instruction time. This information should be compiled while students are not involved in instruction. Once all needed information has been compiled, one lab should be taken at a time for reimbursement requests. During this

process, the page should be saved before continuing on to other equipment. Once an entire lab has been completed, for the work should be checked for errors before submission. The staff at MDE in OVE and WFD are willing to help in any way they can, and they should be thought of as a useful resource.

This study was limited to one school district. It is recommended that future studies be conducted to include all Phase I and Phase II schools. This would allow a comparison of the findings in this study and continue to benefit other districts as they apply for and receive the Redesign grant and continue to redesign the schools in Mississippi.

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APPENDIX A

IRB APPROVAL LETTER

Compliance Division
Administrative Offices
Animal Care and Use (IACUC)
Human Research Protection
Program (IRB)
1207 Hwy 182 West
Starkville, MS 39759
(662) 325-3496 - fax

Safety Division
Biosafety (IBC)
Radiation Safety
Hazardous Waste
Chemical & Lab Safety
Fire & Life Safety
70 Morgan Avenue
Mississippi State, MS 39762
(662) 325-8776 - fax

http://www.orc.msstate.edu
compliance@research.msstate.edu
(662) 325-3294

August 25, 2009

Cliff Craven
84 Snider Street
Grenada, MS 38901

RE: IRB Study #09-191: High School Redesign - Administrator Perspective

Dear Mr. Craven:

The above referenced project was reviewed and approved via administrative review on 8/25/2009 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahrpp.php. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. You must use copies of the stamped consent form for obtaining consent from participants.

Please refer to your IRB number (#09-191) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at tdavis@research.msstate.edu or call 662-325-3994.

Sincerely,

Tina Davis

Tina Davis
Compliance Coordinator

cc: Dwight Hare