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The Evolution of a High-Achieving School: Creating a Cultural Shift Through a Schedule Change, Interventions, and Imbedded Collaboration

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by

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This dissertation has been approved in partial fulfillment of the requirements for the degree of

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at Lindenwood University by the School of Education

Dr. Graham Weir, Dissertation Chair	10/14/16 Date
Dr. John Long, Committee Member	10.14.16 Date
Dr. Mary Ruettgers, Committee Member	10/14/16 Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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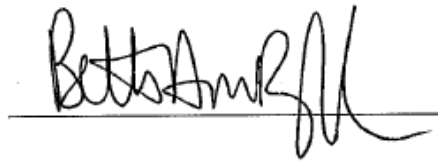
Signature:  Date: 10-14-2016

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Abstract

Many research studies exist regarding high school master schedules. However, not one study could identify which schedule was "best" for high schools to implement. The researcher reviewed a variety of schedule types—traditional, drop 1, trimester, 4x4 block, A/B block, and modified block. The researcher also investigated interventions at the high school level. She also researched change and innovation. Lastly, she researched teacher collaboration. This study investigated changes a high-achieving high school made. The focus was on a master schedule change, interventions scheduled during the school day, and teacher collaboration scheduled during the school day. The purpose of this study was to determine whether a schedule change, interventions, and imbedded teacher collaboration created a cultural shift in a high-achieving school, making it a school that successfully supported all learners. This mixed-methods action research study surveyed students and teachers twice throughout the school year. Also, the researcher analyzed secondary data—tardies, absences, grades, behavior, and Reading Plus data. In this school, approximately 10-15% of students were struggling in various areas but particularly with reading as demonstrated by grades and Scholastic Reading Inventory (SRI) scores. It was important to explore the cultural shift that occurred because of this change. While some students expressed dissatisfaction with the new schedule, data supported that the change resulted in improved grades and a decrease in behavioral referrals. Making a significant change to the master schedule created an opportunity for teachers to review and revise their lesson delivery. While this was ultimately a benefit, it created increased stress, especially for those who were veteran teachers and accustomed to the previous schedule; however, in reviewing and analyzing

the data, it was evident that feedback was overall positive and that the school's culture started to shift to become even more positive.

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction

George Bernard Shaw once said, "Progress is impossible without change, and those who cannot change their minds cannot change anything" (Ignite Consulting, LLC, 2014, para. 3). In order to make important school improvement, the culture must change. Educators regularly discuss, research, and debate the issue of school culture. There were many ways to change a culture of any institution, but the dynamics that existed in a school could be especially challenging; the key to igniting effective change was a dynamic leader (Reeves, 2006a). Having been in numerous schools in various capacities—as a learner, as a teacher, as a parent, as a graduate student, and as an administrator—it was evident that change was something that was often met with resistance. When educators became comfortable, they had difficulty recognizing the need for a change. Even those who recognized a need for change were still apprehensive as change created unknowns. While cultural change was hard and time-consuming, it was critical to advance a school. There were four key components to a change: identify what would not change, use actions not just words, recognize the needs of the specific school, and be willing to do all aspects of work (Reeves, 2006a). It was critical that strong leadership existed to drive any cultural shift (Kruse & Louis, 2010; Picucci, Brownson, Kahlert, & Sobel, 2002; Reeves, 2006a).

The researcher observed and studied the different schools in which she worked and learned the unwritten rules of each institution. These rules ran so deep that they sometimes limited progress. Schools clung to tradition in many instances, and those that did not evolve did not produce valuable learning opportunities for all learners. Therefore,

it was with this in mind that Midwest Suburban High School (a pseudonym) set out to make a considerable change in an effort to support all learners.

Statement of the Problem

Leaders, when faced with the need to make a change to shift culture, often sought input from others to determine what to do to accomplish this. There were countless books and articles written about the topic of shifting a culture (Deal & Peterson, 1999; Gruenert & Whitaker, 2015; Kruse & Louis, 2010). There was no one recipe to do this successfully. Shifting an entire culture and getting all stakeholders—students, educators, parents— on the same page were complex issues with which to deal. A high school was even more complex than a business as the variety of stakeholders involved in a high school—students, teachers, parents, administrators, classified staff, and the school board—all had different lenses with which they were viewing what a high school should be. On paper, the statement that a school sought to support all learners was one notion; actually living that statement was another thing that required more than just saying or writing something. With this in mind, this study looked at three specific components—a master schedule change, interventions during the school day, and imbedded teacher collaboration—to determine whether the culture of Midwest Suburban High School shifted to one where all felt accountable and responsible for serving all students, including the ones with whom they did not directly have access.

Need for Study

This study added to the literature as learning more about what one school implemented enabled other leaders to utilize this information and translate it into a meaningful study for their schools. Research regarding master schedules was

inconsistent at best. It showed that there was no one schedule that created the best results. In addition, there was little research about a modified block schedule; most research was about block schedules or traditional schedules (Banicky, 2012; The Center for Educational Reform, 1996; Merenbloom & Kalina, 2007, 2014; Muir, 2003; Walker, 2011). While considerable research existed about interventions, much of it called for hiring of additional staff. That was not a viable option for this school or for most schools. In addition, implementation of interventions was not explicit in many cases (Buffum, Mattos, & Weber, 2009; Duffy & Scala, 2012; National High School Center, 2010). Teacher collaboration research was clear as well: Teachers needed regular time to talk about curriculum and students so that they would be able to move a school forward (Fullan, 2006; Hughes-Hassell, Brasfield, & Dupree, 2012; Linder, Post, & Calabrese, 2012; Wilson & Powell, 2013).

Rationale

High schools across the country were struggling with ways to support all learners successfully. This study provided a unique perspective from members of a high-achieving school who were determined to help all students realize success. There was research to support the need for interventions and teacher collaboration, but research was inconsistent regarding scheduling types. For example, Trenta and Newman reported in 2002 that schedule types did not have a profound impact one way or the other on student achievement. In addition, Baker, Joireman, Clay, and Abbot (2006) conducted an extensive study of 296 schools in Washington to determine whether a relationship existed between high school schedules and student academic achievement. There was not a clear-cut answer as to which schedule—traditional, 4x4 block, A/B block, or modified

block—produced learners that had the highest scores on the Washington Assessment of Student Learning (WASL). In short, there was anecdotal evidence regarding which schedule was "best," yet there was not data to support one schedule type as being more effective in terms of student outcomes than others (Baker et al., 2006; Everett, 2012; Trenta & Newman, 2002; Williamson, 2010; Zelkowski, 2010). This study did not clearly define what worked best, and most previous studies focused more on traditional schedules or a variation of block schedules; therefore, this provided additional information about a modified block schedule.

In addition, daily pressures of the job, lack of resources, and incomplete planning and follow-up were obstacles to change (McKay, Kuntz, & Naswall, 2013; Morley & Eadie, 2001). Providing valuable, regular, and ongoing professional development was the key to solving this issue (Hafner, Joseph, & McCormick, 2010; Tienken & Achilles, 2003; Tobin, 2010). Elmore (2004) discussed in *School Reform from the Inside Out: Policy, Practice and Performance* that improvement required knowing what to do in one's particular setting. He commented that teachers had little chance to participate in ongoing learning and reflection about their practice in their current school (Elmore, 2004). One way to solve this was by implementing Professional Learning Communities (PLCs). PLCs focused on results, were collaborative, and were sustainable (Hughes-Hassell et al., 2012; Linder et al., 2012). While the idea of implementing PLCs in a school was not a new idea and researchers had studied this extensively, focusing on a specific school produced new knowledge and contributed to the research by either confirming or refuting existing research.

The researcher also investigated implementing RTI and interventions; however, most studies and texts focused on implementing RTI at the elementary level. The successful implementation of RTI at the high school level looked much different and was much more difficult to do (Bruening, 2011; Caposey, 2011; Duffy & Scala, 2012; Ehren, 2015; National High School Center, 2010). This study contributed to research in this area as a concrete strategy was outlined and attempted; in addition, the level of success was defined.

Specifically, in the Midwest Suburban High School, this was a considerable shift for a variety of reasons. The school moved from an A/B block schedule to a modified block schedule. The modified block consisted of a three-day rotation: one day of all classes for 50 minutes each and two block days with four classes for 90 minutes each. The school had a 90-minute block every other day where students traveled to see teachers and to work on homework or use the library. The schedule change was used to also restructure this time. Imbedded into the time was a homeroom period where students and teachers monitored their progress in their classes. Prior to this, there was considerable freedom for both teachers and students; in this model, teachers and students were expected to be more consistent in their practices. Intentional interventions were also imbedded into this time. For year 1, they focused on reading. Students were identified based on their SRI scores. They started with Reading Plus, a program designed to improve comprehension, reading rate, and fluency (Reading Plus, 2015). This was also something that had never occurred in this building. Teacher collaboration was, in addition to the aforementioned changes, imbedded into the school day. It started as intradepartmental collaboration with times blocked out during the study hall period as

well as on student early release days. This was also something that had not occurred before. The school leaders and faculty were not complacent; while the school had many successes, the professionals recognized that it was appropriate to delve into the challenge of making substantial changes in an effort to serve all students.

Purpose of the Dissertation

The goal of this dissertation was to implement a new master schedule, intentional interventions, and imbedded teacher collaboration time to create a cultural shift in the building and to support all learners in the building. The school had historically been a high-achieving school and had received high rankings from magazines as well as other academic accolades for many years. The school celebrated successes but also recognized that these high scores did not show some of the issues that they faced, which were issues often faced by high-achieving schools. According to Schmoker, (2001), "Many students, often disadvantaged or minority, are still well below proficiency level; teaching is, in fact, mediocre or could be much better; smart, adequately achieving kids are never given the additional challenges they need to reach higher" (p. 9). While this school did not fit that quote in terms of mediocrity and rigor, there were students who were not academically successful; many of those students were the very students to whom Schmoker referred. Therefore, the school recognized that a need for change existed in order to move forward. Through the schedule change, interventions, and collaboration time, Midwest Suburban High School sought to determine what worked for their students and teachers and what was ineffective.

Information About Study Site

Midwest Suburban was a high-achieving school. The school had received local, state, and national recognition. This school had exceptional, dedicated educators; hard-working, talented students; and involved, supportive parents. However, school leaders recognized that the school could still be better. Change did not come in this district without extensive research, consideration, buy-in, and follow-up. For example, in 1963, the district began researching flexible class schedules based on individualizing instruction; experiments, studies, and visits to schools implementing this type of program all occurred prior to implementation. The program was implemented on a small scale in the 1967-1968 school year with the hope of being fully implemented by the 1968-1969 school year (Rehg, 1967). Nearly every month during the first year of implementation, the school's newspaper and district newsletter mentioned a key component of the program. This program offered flexibility for some students while others still followed a traditional model. By the late 1990's, the school recognized some concerns with this program: students missing classes and students not utilizing their independent time appropriately. In speaking to a former student and current employee of the school, he was able to provide a perspective about the flexible program. He described it as having too much freedom, which created issues. It was difficult to determine where students were supposed to be (J. Serot, personal communication, July 18, 2016). The principal during this time indicated that he felt that the program had run its course and that it was time to "shift gears" and make a change. During this time, there was considerable information regarding block scheduling and the academic benefits of a block. The department heads conducted research, and the school piloted the schedule (B. Raisch,

personal communication, November 2, 2015). In the 2000-2001 school year, the school shifted from the individualized learning model (which also contained a six-period, traditional day) to an A/B block schedule. An administrator in the school at that time completed his dissertation in 2006 on this topic of moving from a six-period daily schedule (SPD) to a rotate-eight block schedule (REB). This study highlighted the same concerns that continued to exist: There was an achievement gap between African-American males and Caucasian males. In addition, the study demonstrated that one schedule did not differ significantly from the other, but that some of those surveyed felt more satisfied with the block configuration despite the fact that this schedule sometimes yielded lower academic scores while others preferred the "old way" of the traditional schedule (Heger, 2006). Therefore, it was not necessarily a specific change that yielded positive results but that a change itself would if it were created with intention, research, support, and follow through.

Process School Utilized to Ignite Change

The school leaders looked to adjust how they used their time during the day to promote the success of all students. It was with this thought that the administrative team and teacher leadership team embraced the need for change. Through research, focus groups, committee meetings, utilization of feedback, and assessing and re-assessing ideas, three areas of focus were selected.

First, this project focused on a master schedule change. Midwest Suburban High School had been on an A/B block schedule for 15 years. The school moved to a modified block schedule for the 2015-2016 school year on a three-day cycle. The project's second

focus was on the implementation of intentional interventions during the school day. Lastly, the project focused on imbedding teacher collaboration within the school day.

The school hoped to accomplish the following goals with this change: an increase in the frequency of class meetings by approximately 17% and a slight increase in the instructional minutes in each class by approximately 100 to 200 minutes per semester (B. Griffith, personal communication, January 12, 2015). The model operated on a three-day rotation to accomplish these goals. Students attended all seven academic classes for 50 minutes each on the first day of the cycle. Students attended three academic classes plus one study hall time for 90 minutes on the second day of the cycle. Students attended four academic classes on the third day of the cycle. This schedule evolved from many different drafts. Initially, the school was looking at a hybrid schedule whereby some classes met for 45 minutes daily while others met for 90 minutes on alternate days. However, with course offerings exceeding 200 and no tracking, this schedule demonstrated more limitations than benefits. A second schedule, a drop 1, was reviewed. In this format, one class each day was dropped from the schedule; for example, if a student took seven classes, he/she only attended six a day. This schedule seemed difficult to follow and cut the block opportunities for students. There were various other schedules that were discussed, researched, and created in a mock fashion, but ultimately this modified block on a three-day cycle best met the school's objectives. In addition, committee members reviewed nine other high-achieving area schools' schedules and found a variety there as well: two used a modified block schedule, four used a traditional schedule, one used a drop 1 schedule, and two used a hybrid schedule (Civic Memorial High School, 2015; Clayton High School, 2015; De Smet Jesuit High School, 2015;

Edwardsville High School, 2015; Kirkwood High School, 2014; Lafayette High School, 2014; Lindbergh High School, 2015; O'Fallon Township High School, 2015; Parkway West High School, 2014). From this small sample size, no clear pattern emerged as to which high school master schedule best served students.

Another key component of this change was the redefining of study hall time for students and teachers. There was a similar time in the day in the school's prior schedule; however, in this model there was considerable flexibility, freedom, and lack of definition as to how this time should be spent. This 90-minute period had a check-in at the start where teachers took attendance and a check-in at the end where teachers accounted for students. However, the rest of the time, on a large scale, students were not held accountable for where they went or what they accomplished though individual teachers may have worked to hold them accountable. As a result, some students were using the time to complete work and to access teachers while other students were using the time to opt out of their education. This was recognized to be both an academic and safety issue. Therefore, this same period was restructured with three defined opportunities to access teachers as well as an accountability system created to guide students to use their time more productively. There was a 15-minute homeroom, three 20-minute lab sessions, and passing time between each of those. Students were also to dialogue with their homeroom teachers about grades and their plan to use their time each day. In addition, this time was also used to target those students who were struggling in reading as defined by Scholastic Reading Inventory (SRI) data. Those students were placed into an intervention to build their skills in their deficit areas.

A final component was providing teachers with regular opportunities to collaborate. The current system required monthly faculty meetings as well as monthly department meetings. In addition, there were early release days and two full-day professional development days built into the calendar. Teachers did not have much time during the school day and school year to collaborate. It was the goal to use the study hall time to afford consistent opportunities for teachers to come together to talk about students and instruction.

Research Questions and Hypotheses

The following research questions were investigated:

RQ1. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by student surveys?

RQ2. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by teacher surveys?

RQ3. How, if at all, does the implementation of a new master schedule contribute to the creation of a cultural shift as measured by student surveys and teacher surveys?

The hypotheses for this mixed-methods study were as follows:

H1. The implementation of a new master schedule will support increased student accountability as measured by a decrease in the average number of tardies.

H2. The implementation of a new master schedule will support increased student accountability as measured by a decrease in the average number of days absent.

H3. The implementation of a new master schedule will support student improvement as measured by a decrease in the average number of D's and F's.

H4. The implementation of a new master schedule will support student improvement as measured by a decrease in the average number of behavior events.

H5. The implementation of a new master schedule will support student improvement as measured by an increase in SRI scores, vocabulary levels, comprehension levels, and reading rates from a targeted reading intervention.

Methodology

This was a mixed-methods study. Teachers and students were surveyed to gain insight to the changes that were made and the impact it had. For the 2015-2016 school year, Midwest Suburban High School imbedded interventions into the study hall time of students who were reading 1 to 2 grade levels below their actual grade. The following data was reviewed: tardies, attendance, grades of D's and F's, discipline data, and Reading Plus data—SRI scores, vocabulary levels, comprehension levels, and reading rate. Imbedding teacher collaboration time into the school day was the final focus.

Data Analysis

The researcher had surveys administered electronically via Survey Monkey to students twice during the school year. The researcher had surveys administered electronically via Survey Monkey to teachers twice during the school year. The administrative assistant with whom the researcher worked sent the surveys. The investigator coded and summarized the surveys and recorded the results to determine common themes. The surveys consisted of Likert scale questions to determine level of agreement regarding the master schedule. The researcher analyzed surveys as well as tardy, attendance, grade, and discipline data to determine whether a cultural shift occurred. The investigator reviewed and compared tardy, attendance, grade, and

discipline data from 2014-2015 and 2015-2016. By running *T*-tests, the researcher was able to determine differences in means for tardies, attendance, grades, and discipline events. A decrease in tardies, a decrease in absences, a decrease in grades of D's and F's, and a decrease in discipline referrals were some indicators. The researcher reviewed SRI scores, vocabulary levels, comprehension levels, and reading rates of students enrolled in Reading Plus; initial scores—prior to the intervention—and updated scores—after the intervention—were analyzed.

Definition of Terms

4x4 Block Schedule—One where students took four classes each day for an extended time frame, such as a semester and took four new classes during the next semester (Center for Educational Reform, 1996; O'Brien, 2006).

A/B Block Schedule—one where students took eight classes over two days with periods of approximately 90 minutes. On day one, students took half of their classes; on day two, students took the other half of their classes (Fletcher, 1997; O'Brien, 2006; Williamson, 2010).

Baseline Data—information gathered before an intervention occurred. It was used to monitor performance (National Center for Learning Disabilities, 2015).

Differentiated Instruction—this was a teaching strategy whereby teachers modified content, processes, or product for a student to enable them to master essential skills. This instruction was more individualized (TDOE Instructional Programming, 2014).

Drop 1 schedule—one where one class each day was dropped from the schedule; for example, if a student took seven classes, he/she only attended six a day (Kirkwood High School, 2014; Williamson, 2010).

Hybrid schedule—this was basically a schedule on top of a schedule. Some students took some classes in a traditional format and some classes in a block format. Some students took mostly traditional classes while others took more block classes (Lafayette High School, 2014; Parkway West High School, 2014).

Imbedded Teacher Collaboration—Scheduled time within the school day for teachers to delve into student data and use this information to modify instruction/supports as needed (Fullan, 2006).

Modified block schedule—this was a combination of a traditional and a block schedule. Students attended all classes in both a traditional and a block format (Texas Education Agency Office of Policy Planning and Research: Division of Research and Evaluation, 1999).

Progress Monitoring—measures used to identify student success (National High School Center, 2010); in this case, teacher monitoring and student self-monitoring were also a component of this.

Reading Plus—individualized computer program that was designed to help students in areas of comprehension, reading rate, and vocabulary (Reading Plus, 2015).

Scaffolding—this was a teaching strategy whereby teachers broke material down into chunks and provided supports for students along the way, removing supports as students gained understanding (TDOE Instructional Programming, 2014).

Scholastic Reading Inventory (SRI) Scores—a reading assessment from Scholastic that was designed to measure reading comprehension and provide Lexile levels for students (Knutson, 2011).

Study Hall—scheduled time within the schedule for students to access Tier 2 interventions and to access teachers for additional support.

Tier 1 Interventions—universal supports that were provided to all students in the school (National Center for Learning Disabilities, 2015).

Tier 2 Interventions—more intense, specific supports provided to a smaller group of learners (National Center for Learning Disabilities, 2015).

Tier 3 Interventions—most intensive support provided to individual students (National Center for Learning Disabilities, 2015).

Traditional schedule—one where students' classes met for a set period of time every day of the week (Fletcher, 1997; Williamson, 2010).

Trimester block schedule—school year was divided into three distinct sessions; students focused on two core courses for one-third of the year, then shifted their focus to another core for each of the other sessions of the year (Williamson, 2010).

Universal Supports—these were the supports provided to all students and were imbedded in the core curriculum (National Center for Learning Disabilities, 2015).

Limitations

There were some limitations for this study. First was time. Something as major as a cultural shift was not fully likely to occur within one school year. In addition, using anonymous surveys provided some insight, but utilizing focus groups and interviews would have afforded the researcher with the opportunity to delve more deeply into what

the stakeholders felt and believed. Next, obtaining feedback about the effectiveness of the schedule, collaboration, and interventions may have lacked objectivity as this was a major change, and change was difficult for people, especially those who may have felt comfortable with the current plan. In addition, the researcher was an administrator in the study school. Only one school was utilized. Lastly, it was hard to measure one component in complete isolation as being "the thing" that did or did not assist in creating a cultural shift.

Summary

There were students who were not successful at Midwest Suburban High School. It was the goal of this study to assess the effectiveness of the implementation of a new master schedule, interventions, and imbedded teacher collaboration to determine if a cultural shift occurred in the building as measured by tardies, attendance, grades, discipline data, survey results, and intervention data. The researcher was able to determine if this change was significant in shifting the school to one that focused on all learners, not just high-achieving ones. Chapter Two outlined most of the literature that was reviewed during this process.

Chapter Two: The Literature Review

While Chapter One provided background information as well as the research questions and other relevant information about the purpose of the study, Chapter Two focused on the review of the literature. The literature addressed information about five key components related to this study. The first section of the literature focused on different types of master schedules, information about the advantages and disadvantages of various scheduling types, and what factors should be considered before making a schedule change. The second section focused on student supports, including Response to Intervention, universal classroom supports, differentiated instruction, common assessments, and interventions. The next section focused on research about innovation/change and what was needed in an organization to create change. The fourth section discussed Professional Learning Communities (PLCs) and their role in affecting change and shifting culture. The last section concentrated on school culture—what it was, what it was not, what defined a toxic culture, what defined a healthy culture, and steps to take to shift a school's culture.

Master Schedules

Types of master schedules. There were many different types of schedule options that existed for high schools. School administrators were regularly looking at ways to best utilize their time. The traditional schedule was the most common schedule in the United States at the time of this study; block scheduling "emerged in the 1980's" (Walker, 2011, p. 1). While there was no definitive research as to which schedule type was "best," there were a variety of schedules that could be used to effectively structure a high school's academic day.

4x4 block schedule. A 4x4 block schedule was one where students took four classes each day in extended time frames. Students being able to focus more on a smaller number of courses in a given semester was considered as a benefit of this model (Center for Educational Reform, 1996; O'Brien, 2006). Again, the concerns about retaining information and standardized test performance being negatively impacted were given as disadvantages to this schedule format (O'Brien, 2006).

A/B block schedule. An A/B block schedule was one where students took eight classes over two days with periods of approximately ninety minutes. On day one, students took half of their classes; on day two, they completed the cycle by taking the other half of their classes. This model afforded students with the opportunity to take eight classes (Fletcher, 1997; O'Brien, 2006; Williamson, 2010). Teachers still had a large number of students with whom they needed to work, and students still had to prepare for a large number of classes (O'Brien, 2006).

Block schedule. Another popular model researched was a block schedule. Block scheduling became popular in the 1990's as a change from the traditional model (Campbell, Brown, & Guy, 2009). There were also many variations of this type of schedule as well. Those in favor of block scheduling believed that the extended class period provided opportunities for individualized interactions between teachers and students as well as an expansion in "both the quality and quantity of student learning" (Fletcher, 1997, p. 6). Those opposed to block scheduling expressed concerns about AP courses, music education, teacher training, course offerings, and students' ability to make up work following an absence (Baker et al., 2006; Campbell et al., 2009; Muir, 2003).

Drop 1 schedule. The next schedule that was studied was a dropped schedule. This was a schedule whereby one class on each day was dropped from the schedule (Franklin High School, 2013; Kirkwood High School, 2014; Williamson, 2010). For example, if a student had seven classes, he/she would attend six each day. The class that would be missed would rotate. This schedule contained six periods in a day of approximately one hour. In this schedule, each day was different, and classes did not occur at the same time each day (Franklin High School, 2013; Kirkwood High School, 2014). This was the main difference between a drop 1 schedule and a traditional schedule.

Hybrid schedule. The next schedule that was studied was a hybrid schedule. A hybrid schedule was basically a schedule on top of a schedule or a schedule within a schedule. In this model, students took some classes in a traditional format and some classes in a block format. Some students took mostly traditional classes while others took more block classes. It appeared that this schedule afforded students with more choice (K. Calcaterra, personal communication, October 2014; M. Pupillo, personal communication, October 2014). While students had some choice as to how they wished to take a course (traditional or block), they did not have as many options of courses that would fit into their schedule. This schedule actually created limitations for students as well as irremediable course conflicts (Infinite Campus Support, phone conference, October 28, 2014).

Modified block schedule. A modified block schedule was, in essence, a combination of a traditional and a block schedule. Students attended all classes in both a traditional and a block format. Therefore, this model afforded opportunities for increased

frequency of class meetings yet still offered regular opportunities for extended class periods for in-depth projects and other learning opportunities. Teachers had the opportunity to see all of their students in a day at least once a week; however, this did not limit the number of students with whom a teacher worked nor did it limit the amount of courses that a student took (Delaware Valley Regional High School, 2016; Merenbloom & Kalina, 2007; Piedmont Unified School District, 2012).

Traditional schedule. Another schedule that was reviewed was a traditional schedule. A traditional schedule was one where students' classes met for a set period of time every day of the week. Periods ranged from five to eight in one day. These classes met on a semester basis or on a yearly basis (Fletcher, 1997; Williamson, 2010). Proponents of this type of schedule cited its efficiency and cost-effectiveness as some reasons to implement this schedule. Additionally, students, since their courses met daily, had less difficulty in catching up on work following an absence (Williamson, 2010). Some disadvantages of this type of schedule were that it did not offer opportunities for in-depth learning, created a fast pace in the day, required increased supervision, and resulted in teachers needing to prepare and work with well over 100 students in any given day (Baker et al., 2006; Williamson, 2010).

Trimester schedule. A trimester schedule was one that offered three distinct sessions during a school year. In one model, students could focus on two core classes for one-third of the year then shift to another core for each of the other sessions in the year. Proponents of this schedule found benefit in less student and teacher preparation yet recognized that this schedule could potentially influence retention, thus adversely affecting standardized test scores. In addition, this model could be used for credit

recovery opportunities as well as to provide remediation for skills that students might be lacking (Williamson, 2010). Another take on this schedule had students focusing on five daily courses for 12 weeks and repeating this cycle three times. Some classes were taken for one trimester, others for two, and others for three (Sage Creek High School, 2016; Westerburg, 2016).

Data on the best schedule. If one model could be proven to be more effective over the others, all high schools would quickly adopt whatever model that would be. As that was not the case, choosing a schedule was not a simple task. There were many claims by proponents of various scheduling types as to why the ones they touted as "best" were the best, yet there was no solid evidence to support one schedule type over another (Hackman, 2004; Dexter, Tai, & Sadler, 2006; Banicky, 2012). As reported by Trenta and Newman in 2002, "Over the last decade, a number of studies and evaluations have been done on block scheduling in which some have found evidence of improved student achievement. Others found no significant improvement or significant decline" (p. 55).

A study was conducted by Baker et al. (2006) of 296 high schools in Washington with the goal of determining if a relationship existed between high school schedules and student academic achievement. In their study, 64 schools had a traditional seven-period day, 122 had a traditional six-period day, 42 had a 4x4 block, 21 had an A/B block, and 47 had a modified block. They looked at scores on the Washington Assessment of Student Learning (WASL). They discovered that students in a modified block had the highest percentage of meeting standards in both math and writing; students in a traditional seven-period day scored the highest in reading. The lowest percentage of students meeting math standards was those on an A/B block schedule. The lowest

percentage of students meeting reading standards was those on a 4x4 block schedule. The lowest percentage of students meeting writing standards was those on a 4x4 block schedule (Baker et al., 2006).

In another study, American College Test (ACT) researchers reviewed ACT scores in Illinois and Indiana schools and, in seven years, found the following: the mean ACT score increased for students on a traditional schedule while the mean ACT score varied year to year for students on an A/B block schedule (O'Brien, 2006). The North Carolina Window of Information on Student Education (NC WISE) conducted a study to review the difference between 32 block schedules and 30 traditional schedules. The study found no significant difference in Biology end-of-course (EOC) scores between the block and traditional schedules. However, block schedules yielded higher scores on the Algebra 1 EOC than traditional schedules did (Campbell et al., 2009). Another study determined if a block schedule better prepared students for college-level science courses. Eight thousand, one hundred, and seventy-eight surveys were returned, and based on these surveys; researchers determined that teaching methods did not vary between a traditional schedule and a block schedule. The belief that the block would benefit science preparation in particular due to length of class and ease of conducting labs in one period was not proven from this study (Dexter et al., 2006). In summary, study results were not definitive. Some studies stated that block scheduling did not work well for AP courses, music courses, and struggling learners; it could even result in a decline in achievement in some academic areas. Other studies touted improved teacher and student attitudes, increased scores, and reduction in behavioral and attendance issues (Muir, 2003). In short, a master schedule did not create student outcomes and did not define student

achievement (Baker et al., 2006; Campbell et al., 2009; Muir, 2003; Newman, 2002; O'Brien, 2006; Trenta & Walker, 2011).

Factors to consider when making a master schedule change. While there was not a standard schedule that all schools should follow, there were many factors that school leaders should consider before implementing a schedule change. The change should be purposeful; the reasons for the change should be able to be articulated. The first factor that schools needed to consider was to ensure that their goals for the change were clear, in line with stakeholder needs, and realistic (Merenbloom & Kalina, 2007; National Association of Secondary School Principals [NASSP], 2011; O'Brien, 2006; Walker, 2006; Williamson, 2010). It was also important to look at how time was being used and how that time could best be utilized (O'Brien, 2006; Walker, 2006). Students' needs had to be the priority when implementing a change, not teachers' needs (Merenbloom & Katina, 2007; NASSP, 2011; Walker, 2011). Next, stakeholder groups needed to be involved in the process; a change could not be done in isolation but instead had to be a collaborative process (Merenbloom & Kalina, 2007; NASSP, 2011; O'Brien, 2006; Walker, 2006; Williamson, 2010).

Schools should conduct research. They should also visit other schools and talk to other schools about what they were doing well and what was working. While each school was unique, it was useful to learn from those who were in different stages in the process (O'Brien, 2006). Another key component in this change was an analysis of teaching practices and the utilization of staff development to ensure that instructional techniques were varied, that teachers were given adequate support for the change, and that quality instruction was going to be a focus (Farbman, 2012; Merenbloom & Kalina,

2007; Walker, 2006, 2011; Williamson, 2010). Lastly, it was essential that the school was committed to a long-term plan to ensure success. Commitment to post-high school plans was essential, time had to be monitored, student data had to be gathered and analyzed, collaboration had to be continuous, and adjustments had to be made as needed (Merenbloom & Kalina, 2007; O'Brien, 2006; Sampson, 2012; Walker, 2006). It was important to include common times for teachers to collaborate, academic interventions built into the school day, analysis of student data, and ongoing review of the learning experience at the school (Sampson, 2012).

According to Merenbloom and Kalina (2014), there were 18 important steps to consider when moving forward with a change such as this; 12 were related to the physical construction of the schedule. Six were relevant to the philosophical purpose for change. They were as follows: utilize mission statement in all decisions related to a schedule change; give teachers opportunity to frame out how to use time; update course descriptions to reflect changes that will support all learners; insert common time and provide students with their schedules; identify teaching assignments; provide on-going professional development (Merenbloom & Kalina, 2014).

Student Supports: Response to Intervention (RTI)

Background. In 2004, when President George W. Bush reauthorized the Individuals with Disabilities Act (IDEA, 2004), Response to Intervention became a priority in schools. One of the ways a student qualified for special education services was based on a discrepancy model which meant that there had to be a difference between a student's achievement and his/her ability level. This act created the opportunity for educators to utilize RTI as a process to intervene with students prior to referring them for

special education services (Ehren, 2015; McCook, 2006). In addition, the regulations further discounted the discrepancy model and, while not mandated, endorsed, as stated in the Federal Register on June 21, 2005 (as cited in McCook, 2006):

> Models that incorporate response to a research-based intervention should be given priority in any effort to identify students with SLD. Identification models that incorporated response to intervention represent a shift in special education toward the goals of better achievement and behavioral outcomes for students identified with SLD. (p. 4)

In essence, students who were considered to be below grade level were not necessarily students who had a learning disability. RTI created a framework to work to support students and to implement interventions with the goal of moving students forward. If the interventions were not successful, then there would be considerable data and evidence that a referral for special education services might be appropriate (Buffum et al., 2009; Ehren, 2015; McCook, 2006). RTI created a process by which schools could intervene in supporting students, and it identified three tiers of support (American Institutes for Research, 2015; Positive Behavioral Interventions and Supports, 2015; Quinn, 2009).

Tier 1 interventions. According to the RTI model, Tier 1 interventions were universal supports that should be in place for all students. Students should be universally screened to identify potential areas of deficit. The purpose of this was to understand skills gaps that might hinder success at the next level. Tier 1 interventions required a quality core curriculum to exist in a school. Scaffolding and differentiated instruction within the classroom were essential components to Tier 1 interventions as well. Data collection was ongoing, measurable goals were set, teams were established to meet and

discuss student progress, and classroom instruction was observed (Buffum et al., 2009; McCook, 2006; Quinn, 2009). In order to gather baseline data as well as ongoing data, it was necessary to utilize universal screening tools and regularly monitor progress.

Universal screening and progress-monitoring measures should be research-based. Various tools could be used to measure a variety of student needs. The first tool was one that addressed student engagement. The Check & Connect Model from the University of Minnesota trained mentors who regularly monitored students' grades, attendance, and behavior and offered support to students and families and utilized outside resources as needed (Regents of the University of Minnesota, 2014; Southwest Educational Development Laboratory, 2015). This intervention decreased truancy, tardies, behavioral referrals, and dropout rates (Regents of the University of Minnesota, 2014). A second tool addressed writing. Curriculum-Based Measurement (CBM) Writing Measures from the Research Institute on Progress Monitoring helped to identify a student's writing fluency. This tool gave students a topic, a brief amount of time to consider the topic (30 seconds), and five to seven minutes to write about the topic. Writing was assessed based on a prescribed method. In addition, teachers utilized baseline data, set goals, and used data to drive decision-making (Fuchs & Fuchs, 2007; Southwest Educational Development Laboratory, 2015). By using measures that fit students' needs, the faculty and administrators could meaningfully guide instruction and supports.

A third tool focused on reading. The Gates-MacGinitie Reading Tests (GMRT) from Riverside Publishing enabled schools to identify a student's level of reading achievement (Southwest Educational Development Laboratory, 2015). These tests were offered for grades K-12. The "Mature Reading" test measured vocabulary and

comprehension. Scores on this test could be linked to a Lexile score (Houghton Mifflin Harcourt, 2011). A fourth tool focused on math. The STAR Math assessment from Renaissance Learning, Inc. assessed general mathematics achievement. It tested computation, application, and concepts. The test was computer-based and adjusted difficulty based on a student's response (Southwest Educational Development Laboratory, 2015). Reports could be run to identify class needs as well as individual students' needs (Renaissance Learning, 2015). It was critical to establish baseline data and regularly assess students to determine whether they were growing in the prescribed area. These measures were irrelevant without a strong core curriculum (Quinn, 2009).

In order for students to be effectively supported, it was critical that a school had a high quality curriculum that was based on measurable standards, such as state standards (Burns, 2010; McCook, 2006; Quinn, 2009). The curriculum should be based on research-validated characteristics, such as the following: the instruction of essential skills; scaffolding and differentiation based on assessments; explicit instruction with modeling, feedback, and practice; application of skills and strategies; monitoring of progress and re-teaching as necessary (Denton, 2015). Literacy instruction should be built directly into the core curriculum. It was also essential that a high school look at supporting all freshmen entering high school with transition programs prior to the school year and during the school year (Chait, Muller, Goldware, & Housman, 2007; Duffy & Scala, 2012; La Serna High School, 2015; Torgeson, Houston, & Rissman, 2007). Within the general, Tier 1 classroom, teachers had to scaffold lessons.

Scaffolding was a strategy that teachers employed to give students a tool to access information by breaking it in to smaller parts. In essence, a lesson was explicitly broken

down into smaller, identifiable pieces, and teachers provided support to all students at each step (Alber, 2011; Hidden Curriculum, 2014; TDOE Instructional Programming, 2014). There were many ways that teachers could scaffold a lesson. The first was by modeling. It was necessary for teachers to show students an end result before they attempted a task. It was also important to think aloud and show students how to go through a process of solving a problem. In addition, teachers should also access a student's prior knowledge in order to increase relevance. An effectively scaffolded lesson allowed students time to talk and process their thinking with other students. Next, teachers needed to frontload their lessons by pre-teaching important vocabulary (Alber, 2011; Hidden Curriculum, 2014; TDOE Instructional Programming, 2014). Also, using visual aids such as graphic organizers and charts enabled students to represent their thinking in ways they may not have been able to verbally articulate (Alber, 2011; Hidden Curriculum, 2014; TDOE Instructional Programming, 2014). While scaffolding and differentiation shared many similarities, differentiation had some key differences.

While the end goal of both scaffolding and differentiation was to get to student understanding, there were different paths to get there. When teachers differentiated instruction, they individualized their instruction more to meet students' needs. They may differentiate content, process, or product. For example, they provided multiple versions of a text at different reading levels and of varying lengths. The ways students received information might be changed, such as breaking information into smaller parts or giving a copy of notes presented in class (TDOE Instructional Programming, 2014). Choice was also given regarding how a student could demonstrate he/she had mastered a concept, such as an essay, a video essay, a visual representation, or an oral presentation (Alber,

2011; Hidden curriculum, 2014; Kingore, 2004; TDOE Instructional Programming, 2014). Teachers created flexible groupings to accomplish the goal of differentiating a lesson (Kingore, 2004). Sometimes, teachers became concerned about the overwhelming prospect of creating something different for every student. In reality, if teachers created good processes, lessons, and procedures for individualizing work, then it was not only valuable for students but also realistic for teachers (France, 2015; Kingore 2004). In addition, tying in students' interests and providing ongoing formative assessments and common assessments increased student engagement thus increasing student learning (France, 2015; Kingore 2004).

There were many tools teachers utilized to create authentic formative assessments. First was Socrative, which was a quick, computer-based quiz tool that gave instant feedback. Kahoot was another tool that was for quiz creation but also allowed a teacher or student to create flashcards and review games. This showed overall how a class was doing. Zaption allowed a teacher to create educational videos but also to embed questions that must be answered correctly before a student could progress (Davis, 2015). Last, utilizing a live chat such as Chatzy for exit tickets and topics discussion provided all information in one spot to a teacher who was trying to determine what level of understanding students had about a topic (Davis, 2015). It was also necessary that teachers gave common assessments to identify teaching areas of deficit, curriculum concerns, and struggling learners.

Common assessments afforded teachers with the opportunity to compare data within their classrooms as well as between classrooms and were one of the clearest ways to obtain information about how students were performing on certain tasks. When

assessments were timely, informative, and skills-based, teachers could have meaningful conversations around students and their needs, adjusting instruction as needed (Hattie, 2015a). However, in order to create authentic, common assessments, teachers had to collaborate and consider various sources of data when assessing students. According to Brookhart (2008), The College Board (2005), O'Connor (2009), and Pollock (2007) feedback must be diverse; student goals must be articulated prior to the assignment; the assessments must be varied and valid. In order for common assessments to be effective, it must be understood that these must be centered on a well-aligned curriculum (O'Connor, 2009; Pollock, 2007). It was important for teachers to have a baseline as to where students were at the start of the semester so that they could measure growth and see where learning deficiencies were; throughout the course, student progress should be monitored periodically. In order to create cohesion, teachers should collaborate on creating these assessments and recognize that the quality of the assessments was much more significant than the quantity of them. In addition, teachers should work to develop common strategies using consistent language (Charron, Fenton, Harris, & Procek, 2012). Common assessments also helped educators to identify students who needed more support.

Tier 2 interventions. Tier 2 interventions were designed for students who were not responding to Tier 1 interventions. These interventions were more individualized or small group and were supplemental to the regular class instruction. Progress was monitored more frequently—at least every two weeks—for students who were in Tier 2 interventions. Some examples of Tier 2 interventions were study skills courses, individual goal setting and career planning, and mandatory tutoring (Buffum et al., 2009;

Quinn, 2009). It was valuable to research schools to see what tools they were using to effectively implement Tier 2 interventions.

Several schools incorporated extending learning time programs for students who were not being successful in the classroom. These programs offered students with more individualized instruction, re-teaching opportunities, tutoring, homework support, and test preparation. An example of a program was a shadow class. A shadow class was an additional class for a specific subject, and instruction was individualized (Chait et al., 2007). Another example to support students in Tier 2 was enrolling them in a literacy and/or math class that met daily and that could target students as underclassmen. It was important that the intervention courses had flexibility and that students could move in and out of them as necessary (Duffy & Scala, 2012; National High School Center, 2010). Having consistent strategies that were employed across a school provided the best opportunities for student success. For example, many teachers could implement the Cover-Copy-Compare activity where students had information on the left side of the paper, covered it and wrote their own answers on the right side of the paper, and compared at the end. Another example was utilizing guided notes and teaching similar note-taking strategies (Campbellsport High School, 2015). Collaborative teaching was another Tier 2 strategy; having two teachers in the classroom with different skill sets provided a better opportunity for progress monitoring, individualized instruction, and ongoing data collection. Guided study halls/supports offered homework support, instructional support, mentoring from upperclassmen and adults, and skills instruction (La Serna High School, 2015; National High School Center, 2010). There were also some specific literacy supports that could be utilized in Tier 2.

First, incorporating Sustained Silent Reading (SSR) into the classroom afforded students with the chance to read for enjoyment, to have choice in what they were reading, and to discuss books without the same element of pressure one had when all were reading the same text (National High School Center, 2010). Another option was utilizing Reading Plus. This was a silent reading program that was completed online. The readings were grade-level appropriate and adapted based on student performance. It was scaffolded and focused on academic vocabulary, fluency, and reading comprehension (Reading Plus, 2015). Voyager Passport Reading Journeys was another program. In this program, teachers provided daily, explicit instruction and used an online resource once a week. This program tracked comprehension, vocabulary, and word study (Institute of Educational Sciences, 2010). Next, Reading Advantage focused on considerable instruction in reading comprehension. It had a prescribed, three-step method: 1. Explain strategy to students and explain how to do it; 2. Model how to accomplish a task and utilize think alouds; 3. Give opportunities to practice so that students can become more independent (Great Source Education Group, n.d.). A final program that was reviewed was Six-Minute Solution. This program took six minutes per day. Teachers assessed students' reading levels, partnered them with people of similar levels, and the students each read aloud and tracked the words of their partner. Students also charted their own progress (Voyager Sopris Learning, 2015).

Tier 3 interventions. Tier 3 interventions were the most intensive and were designed for students who had not been successful, based on clearly defined criteria, in both Tier 1 and Tier 2 interventions. At this level, instruction was explicit and was specific to an individual student's goals. The intervention occurred frequently over time,

and student progress was monitored weekly (McCook, 2006; Positive Behavioral Interventions and Supports, 2015; Quinn, 2009). It was possible to use some Tier 2 strategies by increasing frequency and decreasing the size of the group (National Center for Learning Disabilities, 2015). Progress monitoring should occur weekly, and a student's plan for achieving mastery should be individualized. In addition, in many circumstances, a teacher certified in special education should be the one delivering a Tier 3 intervention. Some specific Tier 3 interventions included credit recovery programs, intervention courses scheduled in lieu of an elective, and a corrective reading curriculum (National High School Center, 2010). The most important components of a Tier 3 intervention were the intensity and explicitness of focusing on specific skills in which a student was deficient (Fuchs, 2015; Morin, 2014).

RTI at the secondary level. Implementing RTI at the secondary level presented unique challenges. While there was a well-defined, tiered triangle for implementation at the elementary level, high schools did not fit the same mold; therefore, a different approach at this level was essential if interventions were to be successful (Bruening, 2011; Caposey, 2011; Ehren, 2015; National High School Center, 2010). It was also critical to recognize that there were many challenges in trying to implement a system of interventions at this level as well as some myths about engaging with a teenage learner. There were four major challenges.

First, staff capacity was a challenge. As explained by Duffy and Scala (2012) and confirmed by the National High School Center (2010), it was important to build staff capacity by providing ongoing professional development. Teachers must have ample time to discuss students and to discuss intervention options. Most importantly, however,

was that leaders must get teachers on board with this shift (Duffy & Scala, 2012; National High School Center, 2010). Another challenge was the schedule. The researcher spent five years working on creating high school schedules and recognized that they were more complex than those of other grade levels as students took several classes with different teachers and typically had more course offerings than other grade levels. In addition, credit accumulation must be well defined and consistent, which created less flexibility for scheduling interventions. Interventions scheduled as courses in a student's schedule often eliminated his/her opportunity to take an elective course. If a student successfully completed an intervention and should have been exited prior to the end of the semester, he/she usually could not enroll in another course; as a result, the teacher instructing that course must create additional enrichment activities for that student until he/she could be exited at the semester (Ehren, 2015; National High School Center, 2010). Next, resources were often inadequate for effective implementation. It became essential for schools to then look at creative ways to reallocate funds and staff; they also had to consider tying these interventions into classes or programs that already existed within the school (National High School Center, 2010). Last, it was more challenging to measure the fidelity of the implementation of the interventions at this level. There was a lack of tools to utilize to assess reliability. Therefore, school leaders had to regularly observe instruction and afford teams with the opportunity to communicate on a regular basis (Duffy & Scala, 2012; National High School Center). With these challenges also came myths that had to be dispelled prior to moving forward with intervention implementation.

Educators at the secondary level often internalized the myth that it was too late to reach students once they were adolescents. Therefore, resources were often focused on

early intervention. There were studies conducted that initially supported this claim; however, over time, researchers recognized that it was never too late to intervene with students (Ehren, 2015; Phillips, 2014; Scammacca et al., 2007). Another myth was that instruction used for elementary students would benefit high school students. Even if teenagers were reading at an elementary level, the intervention still had to be age appropriate. High schools could not replicate the success of interventions implemented in elementary schools (Ehren, 2015; Muoneke & Shankland, 2009). According to Ehren (2015) and Valencia (2014), teachers at the high school level were not reading teachers. As a result, it was expected that someone else take on the role of teaching reading; oftentimes, this fell on English teachers who had no more training in teaching reading than any other content teacher at the high school level. Therefore, all teachers must assume this role as content mastery and content literacy were indefinably linked. Lastly, the myth existed that there was no value in intervening with students who were unmotivated. In order to support these students, one must identify a possible cause for the lack of motivation, such as one or more of the following: a student's inability to do the work, a student's perception that it would require too much effort to do the work; student's lack of engagement in the classroom due to instructional delivery issues with the teacher; student's inability to see the value of the work; student's lack of confidence; student's poor relationship with his/her teacher (Wright, 2012). Once that occurred, teachers could provide support, give students ownership over their learning, and allow them to track their own progress (Ehren, 2015; Wright, 2012). Once the challenges were recognized and the myths dispelled, it was important to work on implementation.

There were many strategies a school could employ to implement a change. The first approach was to make sure the school's core curriculum was driven by skills and not by content. Schools should be focused on students who were not successful with the core curriculum and should not rely on the RTI triangle model (Caposey, 2011). Schools should also implement Professional Learning Communities (PLCs) centered around teachers with common students, not teachers with common teaching areas. Many also targeted ninth graders in this implementation and ensured that these teachers had a common planning time (Caposey, 2011; Duffy & Scala, 2012). Catching students before they failed and looking at their grades on an ongoing basis also proactively helped schools to identify students who needed additional support. Looking at students in eighth grade, utilizing a rubric to guide discussions between teachers, counselors, and administrators; and mindfully placing students where they need to be were essential components of a high school intervention implementation (Caposey, 2011; Duffy & Scala, 2012; National High School Center, 2010). Diverting most resources to the ninth grade and including social emotional support were key pieces to implementation of RTI at this level (Caposey, 2011; Duffy & Scala, 2012). Focusing on social behavior, academic success, school belonging, and freshman support was necessary for a high school intervention plan (Duffy & Scala, 2012; PBIS, 2015). Positive Behavioral Interventions and Supports (PBIS) was a program designed explicitly to target behaviors to support students.

PBIS could be an effective way to start implementing interventions at the high school level. To do this, a team must be formed that identified areas of need and monitored outcomes. Team members must also collaborate to create effective systems

for implementation and sustainability, must work diligently to improve the school climate, and must utilize data to make decisions (PBIS, 2015). Whatever the focus, schools must communicate regularly about the expectations, posting visuals, and holding meetings to reinforce. They must also explicitly model and teach the desired behaviors. Schools could take different approaches to implement PBIS effectively. First, they could start with a defined behavioral focus, such as attendance, discipline, or homework completion. They could make this a school-wide focus, such as improving the attendance rate from the previous year to the current year or reducing the number of tardies from the previous year to the current year. They could also elect to focus on the students who were most at-risk: Those with significant attendance concerns, those with a low reading level, those with failing grades, and those with no connectedness to the school (Bruening, 2011; PBIS, 2015).

Innovation/Change

According to Reeves (2009), "Educators are drowning under the weight of initiative fatigue—attempting to use the same amount of time, money, and emotional energy to accomplish more and more objectives" (p. 16). With the increased needs of students and the increased demands of high-stakes testing, it was evident that this statement was accurate. Teachers were often given so many strategies to do and try that each initiative became less essential as a new one emerged. It was imperative that leaders recognized this before implementing any change effort. In order to effect true change, school leaders must value their teachers, form teams who were empowered, respect everyone's time, drive initiatives that were essential, ensure small wins occur regularly,

and be open and concise about all items related to the change effort (Foster-Fishman & Watson, 2012; Fullan, 2008; Kotter, 2015; Reeves, 2009).

When working to implement a change, it was critical that those leading the change read other success stories and other relevant information to help successfully effect change. Change could happen at any level, regardless of the make-up of the school district, but it required getting people to buy-in to the purpose and value of the proposed change (Watson, Reigeluth, & Watson, 2015). School change failed when a leader felt he/she could change everyone's mindset, when he/she was not an effective leader, and when the change was based on an individual's ideas rather than on what was needed for the larger community (Goldberg, 2000; Senge et al., 1999; Watson, Reigeluth, & Watson, 2015). There was no one way to implement change. However, it required sustained leadership and administrative support (Boyd-Dimock & McGree, 1995; Fullan, 2008; Howell, 2007; Kotter, 2015; McKinsey & Company, 2010; Morley & Eadie, 2001; Watson et al., 2015). Having the ability to lead change should be a top priority of a school district, and extensive professional development must be dedicated to successfully implementing the change. Fullan asserted in a 2003 interview with Sparks that any educational change must have researched best practices behind it, and people must recognize that any worthwhile change should be implemented and researched completely, that there were not any "shortcuts" when it came to this issue (Sparks, 2003). In order for teachers to learn and to utilize what they learned, the innovation and change that occurred must be sustained (Fullan, 2008; Kotter, 2015; Reeves, 2009; Senge et al., 1999; Wilson & Powell, 2013).

Those who seemed unwilling to change often felt this way due to their own personal—real or perceived—inadequacies. Morley and Eadie (2001) said people feared not being able to meet the new requirements, not being able to successfully execute the change and thus end up embarrassed, and not being able to maintain their same level of power or status especially if in a supervisory position. In addition, daily pressures of the job, lack of resources, and incomplete planning and follow-up were also obstacles to change (Morley & Eadie, 2001). Reeves (2009) stated "In truth, any change will be met with resistance because change is loss. In fact, meaningful change is a particular kind of loss" (p. 45). Change was compared to grief, in that it created a feeling of loss with what was comfortable. The past attempts at educational reform showed that there were many valid ideas that either did not come to fruition or were not universally successful (Fullan, 2004). It was argued that the missing component of these aforementioned changes was change knowledge: "understanding and insight about the process of change and the key drivers that make for successful change in practice" (Fullan, 2004, p. 2). A common thread between all of the literature about change was professional development. Fullan said, "If you don't have a strategy conducive to teacher understanding, you can't get to student understanding" (as cited in Sparks, 2003, p. 2). This was a simple but often overlooked notion. While many resources explained the need for transformational leaders committed to seeing the reform through from beginning to end (and regularly in the middle) (Howell, 2007; McKinsey & Company, 2010; Morley & Eadie, 2001; Watson et al., 2015), still others pointed out that teacher leadership was a key ingredient for successful change as well (Boyd-Dimock & McGree, 1995; Howell, 2007; Kotter, 2015).

The belief that teacher leaders played essential roles in the change process stemmed from the fact that teachers were in the best position to monitor daily learning and to critically evaluate what curriculum and instruction components needed to change. Also, the majority of teachers desired to improve not only their own teaching, but, more importantly, the learning of their students. Not to say that school leaders did not hold this desire, but it was more personal for teachers—the "front line" in a school (Boyd-Dimock & McGree, 1995; Howell, 2007). Additionally, assuming a leadership role helped the leader to feel more capable professionally and to feel more a part of the school community. In addition, leaders developed a variety of useful skills: trust building, development of good rapport with peers and supervisors, ability to recognize conditions of school, knowledge about handling processes, management of workload, and improvement of skills and confidences of the ones with whom they directly worked (Boyd-Dimock & McGree, 1995; Goldberg, 2000; Kotter, 2015; Reeves, 2009). Limitations included time and minimal levels of support and assistance from administrators and peers (Boyd-Dimock & McGree, 1995; Goldberg, 2000; Kotter, 2015; Reeves, 2009).

Some of the necessities to transform student learning were as follows: creating consistent language and methods that extended across the disciplines, getting stakeholders on board about the importance and relevance of certain skills, providing a legitimate and logical structure, affording time to reflect and seek assistance, and giving continual professional development and support (Boyd-Dimock & McGree, 1995; Howell, 2007; Fullan, 2008; Kotter, 2015; Reeves, 2009). Fullan (2006) discussed in this article "Leading Professional Learning" the importance of utilizing what he called the

"Triple P" model, based on three components: personalization, precision, and professional learning. He stated, "Learning for all requires that we address the learning needs of each student (personalization) and do so in an instructional manner that fits their learning needs of the moment (precision)" (Fullan, 2006, p. 12). He further discussed that this must not only be manageable, it must also be feasible. The third "P" in the model was the most important as teachers must be learning daily (Fullan, 2006).

Elmore (2004) discussed in *School Reform from the Inside Out: Policy, Practice and Performance* that improvement required knowing what to do in one's particular setting. He went on to talk about the fact that teachers basically had little chance to participate in ongoing learning and reflection about their practice in their current school (Elmore, 2004). One way to solve this was by implementing Professional Learning Communities (PLCs). In order for the PLCs to be effective, it was critical that members delved into learning and not just skimmed the surface (DuFour, 2015; Elmore, 2004; Fullan, 2006).

Fullan (2004) identified in "Learning to Lead Change: Building System Capacity" some basic information that would assist in implementing an educational change. This article outlined eight key drivers for change: The first driver focused on raising expectations and eliminating the achievement gap. The second focused on improving "the collective power of people to move the system forward" (p. 4). Achieving a commitment and sense of ownership for the stakeholders related to the third driver. A strategy proposed in the fourth driver involved developing professional development communities and to utilize other success stories as a guide. Evaluation was the fifth driver that involved not only the gathering of relevant data but also analyzing the data

and using it to direct decisions. Next, the sixth driver focused on effective leadership and operated under the belief that quality leaders helped others to realize their own leadership potential. The goal of the seventh driver was to help people to focus more in-depth on the interconnectedness of concepts taught between the disciplines. Finally, driver eight focused on not only the need to change an individual but also the need to change the current situation. This overview was significant in that these drivers were necessary to use and understand when guiding change. Without the use of change knowledge, "even the best ideas will not take hold" (Fullan, 2004, p. 14). Another component of change focused on 12 "Knowledge Building Principles" (Scardamalia & Bereiter, 2010).

In order to understand how to develop a program that worked, it was also necessary to understand basic principles about knowledge building. The 12 basic principles were as follows: problems caused opportunities for change, ideas could always be improved, a diversified view was beneficial, obstacles were inevitable, people must have had a "personal and collective responsibility" (p. 10). Information had to be of value to others, teamwork was essential, all groups involved in the process had the same knowledge, creativity was encouraged, knowing researched best practices was essential, knowledge was analyzed and amended to fit the group's needs, and assessment should be ongoing and rigorous (Scardamalia & Bereiter, 2010).

Professional Development

Leadership. According to Galinsky and Schweitzer (2015), Hattie (2015b), and Reeves (2006b), in order for effective professional development to occur within a school, effective leadership must exist. While different researchers utilized different terms, there were several key components, which were consistent. First, leaders must be visionary.

They had to have a clear, explicit strategy for improvement that was articulated to staff; they lived their vision. In order to obtain buy-in, leaders must build trust. A vision could be realized as long as teachers understood the part they play in the overall success of the school as well as understood the importance of their individual role. Second, leaders must be relatable. Leaders must listen without interruption or judgment and must respect confidences. Relational leaders were warm, showed genuine concern and empathy, and were passionate about their role and the people they served. Next, Reeves (2006b) and Hattie (2015b) explained that leaders must employ systems thinking to be effective. Leaders who understood the complexity of how things related to each other and understood interactions and how these interactions influenced the entire system were leaders who could support teachers in their professional development endeavors. Galinsky and Schweitzer (2015), Hattie (2015b), and Reeves (2006b) asserted that good leaders were reflective. They strategized. They thought about the lessons they had learned, recognized small wins, identified setbacks, recognized conflicts between values and practice, saw the differences between odd behaviors and actual character, and noticed trends. Fifth, leaders were collaborative. While leaders needed to make decisions on a regular basis, if their decisions did not have buy-in, they would not be implemented. In order to obtain buy-in, leaders must give their staff reasons to trust them. Sixth, solid leaders had strong analytical skills. They had good problem-solving abilities and were persistent in their questioning; analytical leaders exuded competence and drove collaboration. Lastly, communicative leaders possessed not only effective written and oral communication skills, but they also recognized the value of personalized communication. Communicative leaders regularly and openly communicated with

stakeholders (Hattie, 2015b; Reeves, 2006b). A quality leader could then work with staff to develop strategies for professional development.

Strategies. In order to provide quality professional development, three components must be considered: planning, implementation, and monitoring. Professional development needed to move away from one-day, one-shot workshops that may or may not have had relevance to the school's objectives and that did not afford teachers with independence in their learning and move to activities that were consistent, coherent, and intensive (Margeson, Eide, & Fox, 2014; Reeves, 2006b; Wong & Nicotera, 2007). Professional development must be structured, job-embedded, and collaborative (Margeson et al., 2014). There should be shared leadership between teachers and administrators based on a common vision; there should also be regular interactions between school leaders and teacher leaders with opportunities for reflection (Reeves, 2006b). Margeson et al. (2014) and Wong and Nicotera (2007) explained that these professional development opportunities needed to be focused on content-based instruction and assessment; effective professional development built teacher competency in teaching and learning. Active learning opportunities must be provided to teachers that were aligned with standards and afforded them with chances to question. Quality professional development worked when teacher leaders emerged and had the chance to be an integral part in its implementation. Valuable professional development was intense and ongoing and embedded into the daily practices of all educators in the school. Lastly, professional development worked when it created a collaborative culture that permeated all school, grade level, and departmental activities.

The key to creating a collaborative culture was to remove the disconnectedness that existed at the high school level by assuming positive intent, by reframing resistance, and by being curious. The goal was to move teachers from being private about their practices to being public about them. The best way to do this was to establish norms and values, to reframe complaints in order to recognize the concerns people had (which showed that they cared), and to act not as an expert but rather as a learner (Reeves, 2006b; Reilly, 2015). Giving teachers opportunities to network so that they could engage with other professionals in improving their practice could be accomplished by incorporating Professional Learning Communities (PLCs) into a school's structure.

Professional Learning Communities (PLCs). When schools were established with quality leaders and a recognition of the value of professional development, they were then ready to establish PLCs. Implicit in a PLC was reflective dialogue; teachers needed to be regularly talking about students and asking the following questions: 1. Who was not proficient and why? 2. Who exceeded the benchmark and what could be done to enrich the learning of those students? 3. What could teachers do to learn from successful colleagues? 4. What could teachers do when benchmarks were not met? In addition, teachers must agree on their goals and the decisions that they wanted to make about students; they must be open about their instructional practices that were effective and ineffective. They must utilize common assessments and focus collectively on student learning (Schutt, 2015). They must establish norms and possess similar values of giving students what they needed in order to be successful (DuFour, 2015; Schutt, 2015; Wong & Nicotera, 2007).

PLCs must be structured for success as well; it must be established as a group that met regularly, worked outside of their meetings, and shared goals. First, the PLC must decide on an appropriate size of the group; four to six was recommended. Second, the PLC must decide how often they will meet; once or twice a month was reasonable. Next, the PLC must require attendance (Hidden Curriculum, 2014; Provini, 2012; Strickland, 2009). A facilitator of the group must be selected. Last, group norms had to be created that allowed all group members to share, listen, and question in a productive, non-threatening way (Hidden Curriculum, 2014; Provini, 2012; Strickland, 2009).

School Culture

School culture was the school's personality, and it was an interrelationship of the stakeholders' assumptions, beliefs, and behavior (Gruenert & Whitaker, 2015; Reeves, 2009). Assumptions were the underlying perceptions people had and demonstrated how things worked. Beliefs were values and expectations that defined what teachers thought about themselves, others, work, and the school as a whole. Behaviors were how people acted on a daily basis. These components made up the mindset of the stakeholders at the school (Gruenert & Whitaker, 2015; Lick, Clauset, & Murphy, 2013). As these beliefs and values were deeply rooted, shifting a school's culture could be exceedingly difficult as it created a sense of stability. In order to create a cultural shift, it was necessary to realign and modify people's assumptions, beliefs, and behaviors in order to move a school forward. Schools could implement many changes, even with thorough research and with the best intentions; however, cultural change was essential to meaningful reform (Lick et al., 2013).

Before seeking to implement a cultural shift, a school leader should assess various components of the school. First, he/she should analyze the climate of the school. Next, he/she should review the mission—the purpose for the school—and the vision—the goal for the future. Language and humor were other areas to examine. Recognizing the existing routines, rituals, and ceremonies was also critical. Norms and roles needed to be evaluated as they helped teachers to know expectations and how they fit into the school. Symbols were another area to study as well as the school's stories and heroes. Lastly, truly delving into the school's values and beliefs provided insight into the current state of the school (Gruenert & Whitaker, 2015). The next step was to determine the type of culture that existed in the school.

Gruenert and Whitaker (2015) identified six different culture types that existed in a school; they expanded on research previously done by Fullan and Hargreaves (1996) and Deal and Kennedy (2009). The first type was the collaborative culture. In this culture, teachers worked together to achieve common goals. They met regularly and were committed to continuous improvement. People had honest conversations and debates, yet this culture created a sense of belonging and support. The second type was the comfortable-collaborative culture. In this culture, people were nice to each other but to the point of being detrimental. This niceness resulted in limiting conversations and safe topics. Teachers did not seek opportunities to grow; they were comfortable with how things were going. As a result, this culture was incompatible with a truly collaborative environment. The third type was the contrived-collegial culture. In this culture, the leader mandated collaboration and controlled most situations. Shifting a culture could be a slow process, but forcing teachers into unnatural groupings and into

situations about which they had little to no ownership was counterproductive. The fourth type was the balkanized culture. In this culture, there were cliques, and collaboration only occurred within those cliques. This type of culture could divide a staff. The fifth type of culture was the fragmented culture. In this culture, teachers essentially acted as independent contractors. Staff members were respectful to each other, but no professional collaboration occurred. Things remained status quo (Fullan & Hargreaves, 1996; Gruenert & Whitaker, 2015). The sixth type was the toxic culture. This culture was devastating to a school. In this culture, teachers focused on the negative. A small percentage of teachers behaving this way could create a toxic culture. On the surface, a toxic culture may not be obvious as it may not seem like a particularly unhappy place (Deal & Kennedy, 2009; Gruenert & Whitaker, 2015). Gruenert and Whitaker (2015) asserted "A toxic school culture expends energy on preventing change" (p. 62). Regardless of the type of culture a school had, it was possible to take steps to change the culture.

According to Lick et al. (2013), Picucci et al. (2002), and Reeves (2006b, 2009), it was first important to identify what would not change in the organization. Teachers must understand that things that were working as effectively and efficiently as possible would remain. There must be a clear, positive, student-focused dialogue that was transparent. Next, it was important to speak through actions not just words. It was one thing to talk about good ideas; it was quite another to implement them. For example, the leader should be sure that facilities were updated. In addition, he/she should treat his/her staff well by offering professional development opportunities and any additional support they may need. Third, the leader must recognize which tools to use that were right for

the school. He/she must look at what was needed by looking at traditions, at training opportunities, and at modeling the change. It was critical that the leader made tough choices and spoke openly about the shift; people either needed to be in line with the plan or make a different employment choice. Before this could occur, however, the leader must have teacher leaders who had a voice in decision-making and who felt supported by the leader. Last, the leader must be willing to do the work of every person in that organization. A leader who wanted to shift a culture must value each person and the role he/she played and must be willing to dive in to work that needed to be accomplished, whether it was cleaning trash off a cafeteria table or presenting to the entire faculty (Lick et al., 2013; Picucci et al., 2002; Reeves, 2006b, 2009). Collins (2001) reiterated these points:

> Create a climate where truth is heard by leading with questions, not answers; engaging in dialog and debate, not coercion; conducting autopsies without blame; and building 'red flag' mechanisms—to turn information that is critical to competitive advantage into information that cannot be ignored. (pp. 74-75)

Regardless of how well planned a cultural shift may be, strong leaders who persevered, stayed consistent in their message, and did what they said and said what they meant were the critical component to guiding the cultural shift to occur (Gruenert & Whitaker, 2015; Reeves, 2009).

Summary

By breaking the literature review into the subheadings of master schedule, student supports, innovation/change, professional development, and school culture, the researcher was able to sort and make sense of a considerable amount of information. It was

imperative that teachers and administration not only collaborated to create common strategies, but it was also essential that they worked collectively to consistently implement them. This required diligence, a professional learning community, continuous support, and opportunities for adjustments. Without these items, this would be yet another great idea that did not come to fruition as the daily pressures of teaching, high-stakes testing, and building management eclipsed the critical need to shift the school's culture to one that effectively supported all learners. Chapter Three outlined the methods employed to analyze the data.

Chapter Three: Methodology

Introduction

As Chapter Two contained a review of the literature in many key areas, Chapter Three focused more on the research conducted to determine whether or not a master schedule change, intentional interventions, and imbedded teacher collaboration created a cultural shift in a high-achieving high school. This was a mixed-methods study. Students and teachers were surveyed twice, once in January of 2016 and once in May of 2016. Participants were from Midwest Suburban High School. The researcher reviewed tardy, attendance, grade, and discipline data from the 2014-2015 school year and compared it to data from the 2015-2016 school year. In addition, this chapter outlined the reasoning behind the pursuit of this topic of study, why it was a worthwhile study, and how this was intended to help to identify if a cultural shift occurred at Midwest Suburban High School.

Purpose

The purpose of this dissertation was to implement a new master schedule, intentional interventions, and imbedded teacher collaboration time to create a cultural shift at Midwest Suburban High School and to support all learners in the building. The school recognized that a need existed for a change in order to move forward. Through the schedule change, interventions, and collaboration time, Midwest Suburban High School sought to determine what worked for their students and teachers and what was ineffective.

Teachers and students were surveyed to gain insight to the changes that were made and the impact they had. For the 2015-2016 school year, some teachers imbedded interventions into study hall time with the goal of helping students to build their skills in

the area of reading. The following data was reviewed: tardy, attendance, discipline, and Reading Plus data as well as student and teacher surveys. Imbedding teacher collaboration time into the school day was the final focus.

Research Questions and Null Hypotheses

The following research questions and null hypotheses were investigated:

RQ1. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by student surveys?

RQ2. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by teacher surveys?

RQ3. How, if at all, will the implementation of a new master schedule contribute to the creation of a cultural shift as measured by student surveys and teacher surveys?

The null hypotheses for this mixed methods study were as follows:

NH1. The implementation of a new master schedule will not support increased student accountability as measured by a decrease in the average number of tardies.

NH2. The implementation of a new master schedule will not support increased student accountability as measured by a decrease in the average number of days absent.

NH3. The implementation of a new master schedule will not support student improvement as measured by a decrease in the average number of D's and F's.

NH4. The implementation of a new master schedule will not support student improvement as measured by a decrease in the average number of behavior events.

NH5. The implementation of a new master schedule will not support student improvement as measured by an increase in SRI scores, vocabulary levels, comprehension levels, and reading rates from a targeted reading intervention.

Data Analysis

The investigator had surveys administered electronically via Survey Monkey to approximately 1,300 students twice during the school year. In January of 2016, 503 students responded while in May of 2016, 348 students responded. The researcher also had surveys administered electronically via Survey Monkey to approximately 105 teachers twice during the school year. In January of 2016, 76 teachers responded while in May of 2016, 58 teachers responded. Common themes were present in the surveys. Tardy, attendance, grades of D's and F's, and discipline data from 2014-2015 were compared to 2015-2016 data. This review included the entire population from each school year. *T*-tests compared means for tardies, attendance, grades, and discipline events for stratified random samples of 150 students who attended the school for both school years of the study. Paired *t*-tests determined differences in means for SRI scores, vocabulary levels, comprehension levels, and reading rate for a simple random sample of seven students who participated in the Reading Plus intervention.

A list of all students who attended the school for both the 2014-2015 and the 2015-2016 school years was imported into Excel. From there, the Excel program generated a stratified random sample of fifty students from each grade level. Four lists were generated for each grade level. As no students were excluded from any list, all had an equal chance to be included in the tardy, attendance, grade, and behavior data. Therefore, in reviewing tardy data, 50 students who were in ninth grade in 2014-2015 and in 10th grade in 2015-2016, 50 students who were in 10th grade in 2014-2015 and in 11th grade in 2015-2016, and 50 students who were in 11th grade in 2014-2015 and in 12th grade in 2015-2016 were utilized in the sample. This same process was repeated for

attendance, grade, and behavior data. Each list was randomly generated using the same population of students, so students could have been on 0, 1, 2, 3, or 4 lists. If a student's name appeared, for example, on the list for tardies, his/her name may also appear on the list for attendance, grades, and/or behavior data. In addition, the number of opportunities to be tardy changed from the 2014-2015 to the 2015-2016 school year as the master schedule changed. For Reading Plus data, random sampling occurred; the students on the list were assigned a number, and every third student's number was chosen. During this selection, the researcher could not see the students' names or scores. Therefore, students 3, 6, 9, 12, 15, 18, and 21 on the list were the ones selected for the *t*-tests.

The Research Site/Context

Midwest Suburban High School was located in a Midwestern suburban area, consisted of all or part of 10 different communities, and covered nearly 20 square miles. The district had one early childhood center, four elementary schools, one intermediate school, one middle school, and one high school. However, for this study, the high school population was used. The district enrollment for the 2015-2016 school year was 4,156. The school's enrollment for the 2015-2016 school year was 1,304. On state assessments, the students in the district scored well above the state average at all tested grade levels and in all tested content areas. At the high school level, the class of 2015 had an average composite ACT score of 25.7; the average composite score for the state was 21.7; the national average was 21.0. Approximately 91.6% of the class of 2015 took the ACT. Of the students in the class of 2015 who took the SAT, the critical reading mean was 637; the state's critical reading mean was 596; the nation's critical reading mean was 496. These students had a math mean of 636, compared to the state's math mean of 599 and

the nation's math mean of 514. In writing, these students had a mean of 622 while the state had a mean of 582; the nation had a mean of 488. The graduation rate for Midwest Suburban High School was 96.5%, and 91% of students attended a two-year or four-year post-secondary institution. The district's students' race/ethnicity was broken down in the following way: 60.7% White, 17.1% Black, 12.6% Asian, and 9.6% Other (Native American, Hispanic, Multi-Racial). The low-income percentage for the district was 12.6% (Missouri Department of Elementary and Secondary Education, 2015).

Developing the Study

Most, if not all, high schools have struggled with ways to reach struggling learners effectively. If there were one solution to this issue, all schools would be implementing whatever that solution might be. While changing a master schedule was not a definitive way to solve this issue, it was important to look at how the school's current master schedule was achieving the objective of supporting all learners. Research regarding the most effective schedule type was inconsistent at best, and there was not a considerable amount of research regarding modified block schedules; therefore, this study provided a contribution to the literature in this area (Banicky, 2012; The Center for Educational Reform 1996; Merenbloom & Kalina, 2007, 2014; Muir, 2003; Walker, 2011). The researcher extensively reviewed and researched many schedule variations. The goal of implementing a new master schedule was to marry the very different philosophies of different academic departments, from feeling it best for students to meet daily in shorter class periods to feeling it best for the school to preserve longer, every other day class periods. The school leaders examined a variety of schedules to meet these differing perspectives, and through mock schedule design, conversations with schools

with a particular schedule type, and research on the pros and cons of each schedule, the school decided on a three-day modified block rotation. In the first day of the cycle, students attended all classes except for a non-credit bearing study hall time. In the second day of the cycle, students attended three academic classes and a study hall. In the third day of the cycle, students attended four academic classes.

Table 1

Midwest Suburban High School Modified Block Schedule

Week 1				
Monday (Traditional) 50-minute classes	Tuesday (A block) 90-minute classes	Wednesday (B block) 90-minute classes	Thursday (Traditional)	Friday (A block)
1	1	2	1	1
2	3 Study Hall	4	2	3 Study Hall
4	5 Class/Lunch	6 Class/Lunch	4	5 Class/Lunch
5	7	8	5	7
6 Class/Lunch			6 Class/Lunch	
7			7	
8			8	
Week 2				
Monday	Tuesday	Wednesday	Thursday	Friday
B block	Traditional	A block	B block	Traditional
Week 3				
Monday	Tuesday	Wednesday	Thursday	Friday
A block	B block	Traditional	A block	B block

It took three weeks to complete a full cycle of this schedule. In this time, each student attended 10 total classes for each class in which he/she was enrolled. This schedule increased class frequency by nearly three weeks each semester, and it also increased instructional minutes by 90 to 120 minutes per semester. The next step was to look at interventions to implement.

The school created an intervention committee the year prior to implementing the change. The committee looked at many options as to what to implement. They suggested universal supports focusing on organizational skills at the ninth grade level.

They suggested an intervention approach to the entry-level algebra course. The English department suggested incorporating Sustained Silent Reading into their courses. Lastly, they suggested a reading intervention to reach students who were reading one to two levels below grade level. Intervention courses already existed for students who were reading three or more levels below grade level. The school recognized that interventions would not be successful it they were not explicit (Buffum et al., 2009; Duffy & Scala, 2012; National High School Center, 2010). The school took the committee's recommendation to implement a reading intervention. They looked at many options and decided to utilize Reading Plus. This silent reading program was able to be completed solely online. The readings were grade-level appropriate and adapted based on student performance. The Reading Plus program focused on academic vocabulary, fluency, and reading comprehension (Reading Plus, 2015). It was scheduled during study hall so as not to impact academic courses, and students were given the opportunity to work outside of school as well as at school and could leave the intervention when they tested as reading on grade level; thus the intervention was flexible, and students were able to move out of the intervention as needed (Duffy & Scala, 2012; National High School Center, 2010). Many English teachers elected to incorporate Sustained Silent Reading (SSR) into the classroom to create an interest in reading and to improve reading skills (National High School Center, 2010). The two entry-level algebra teachers collaborated to create an intervention-style course as well. The final key to this change was to imbed teacher collaboration into the school day.

It was important to provide several opportunities during each semester for teachers to collaborate within their departments. Prior to this, Midwest Suburban High

School had monthly faculty meetings and monthly department meetings; in addition, the district had two full-day professional development opportunities but the content of these was decided at the district level. Research regarding teacher collaboration was clear: Teachers needed regular opportunities to discuss curricula and students if the school were to achieve higher levels of success (Fullan, 2006; Hughes-Hassell et al., 2012; Linder et al., 2012; Wilson & Powell, 2013). While many teachers informally met to discuss lessons, there was not an established collaboration routine. The school leaders researched a variety of options, such as staying after school or having regular late starts or early releases. Staying after school could not be mandated nor should it have been. Late starts and/or early releases required district-level approval and considerable adjustments at each grade level. In addition, the district published its schedule two years in advance, so incorporating late starts and/or early releases could not easily occur within an existing, approved schedule. It also had to be equitable for all levels, and there were many components to consider: transportation, student contact hours, how time would be effectively utilized, and daycare needs. Therefore, the school looked at study hall time. All teachers were available during this time with the exception of part-time teachers and two who had additional duties beyond their classroom instruction. An administrator created a collaboration schedule to give teachers five opportunities to collaborate during this time and two opportunities to collaborate during early release days that were already scheduled into the calendar; this created seven opportunities each semester in addition to the monthly faculty and department meetings. Two departments collaborated at the same time so that students could still see most of their other teachers for additional support. Teachers were given 45 minutes during their study hall collaboration time. There was no

set agenda as the goal was to get teachers comfortable with talking about students and their learning; many utilized this time to review curricula and to create common assessments. While this was not truly enough time, it was a start and a move in the right direction.

Students and teachers were surveyed to determine what they felt was working and to look at how they were using their time. The goal was to determine whether a cultural shift had occurred or started to occur. Surveys helped to identify feelings about the change. Quantitative data helped to identify if tardies, attendance, grades, and discipline improved.

Part of the challenge was that, for most people, the prior schedule was working just fine, and there was a high comfort level as to how things occurred in the building. People feared change for a variety of reasons: perception of own inadequacy, moving out of one's comfort level, and increased workload to adjust to the change (Morley & Eadie, 2001). However, the majority of teachers and administrators in the building recognized that a change needed to occur.

Data Collection and Analysis Procedures

The investigator reviewed past tardy, attendance, grade, and discipline data from two school years from the school's online database. She also reviewed Reading Plus data. Students and teachers provided input electronically via Survey Monkey mid-year and at the end of the year. The timeline utilized was as follows:

- August 2015: reviewed SRI scores of students, reviewed 2014-2015 tardy, attendance, grade, and discipline data.

- January 2016: reviewed 2015-2016 tardy, attendance, grade, and discipline data from semester 1; compared 2014-2015 semester 1 data with 2015-2016 semester 1 data; surveyed teachers and students.
- May 2016: reviewed 2015-2016 tardy, attendance, grade, and discipline data from semester 2; compared 2014-2015 semester 2 data with 2015-2016 semester 2 data; reviewed SRI scores, vocabulary levels, comprehension levels, and reading rate of students who were in the intervention; surveyed teachers and students.
- June 2016: completed qualitative research analysis—coding and summarizing surveys; completed t-tests to compare means for tardy, attendance, grade, and discipline data from 2014-2015 to 2015-2016; completed paired *t*-tests for differences in means for SRI scores, vocabulary levels, comprehension levels, and reading rates from the start of the intervention to the conclusion of the intervention.

The researcher collected and analyzed the data.

Participants

The participants in this study were teachers and students from Midwest Suburban High School. Participants were asked to complete a survey. The surveys were sent to all students and teachers in the building. They participated on a voluntary basis. The purpose of seeking feedback from them was to improve the school. While the researcher served as an administrator in the building, she did not coerce anyone into participating. Informed consent and assent forms were provided to all participants. Harm was minimized for participants in that their participation or lack thereof was not recorded or utilized for any evaluative purposes. The survey was sent by the administrative assistant

with whom the researcher worked, and the responses were recorded via Survey Monkey, which meant respondents' identities were protected. Teachers and students were told for what purposes they were being surveyed—not only to improve the school but also to provide data for this study. Participants were also given the opportunity to withdraw their participation in the study at any time.

Secondary data—tardies, attendance, grades, discipline, assessments— from current and past students that was accessible through the school's database was also utilized.

Sample Sizes and Selection Criteria

The sample size for students ranged from 348 to 503 students from a population of approximately 1,300. The sample size for teachers ranged from 58 to 76 from a population of approximately 105. Participation was voluntary, and no participants were excluded.

Table 2

Summary Data for Tardies for Entire Population

S1 2014-2015 Mean Number of Tardies per Student	S1 2015-2016 Mean Number of Tardies per Student	S2 2014-2015 Mean Number of Tardies per Student	S2 2015-2016 Mean Number of Tardies per Student
6.56	6.43	5.95	6.04

The researcher reviewed reported tardies from each semester of the 2014-2015 school year and compared the data with each semester of the 2015-2016 school year. Student enrollment for the 2014-2015 school year was 1,278; student enrollment for the 2015-2016 school year was 1,304. All students were reviewed, so some students may only be in one semester or one year of the data (2014-2015 seniors, 2015-2016 freshmen, and students who either left or came during this two-year span). During semester 1 of the

2014-2015 school year, there were 356 transitions, or opportunities, for students to be tardy; the total number of tardies possible for the entire population was 454,968. There were 8,084 total reported tardies for the population. The mean number of tardies per student was 6.56. Nine hundred students had one or more tardy; 227 students had 10 or more tardies; 109 students had 20 or more tardies. During semester 1 of the 2015-2016 school year, there were 446 transitions; the total number of tardies possible for the entire population was 581,584. There were 8,373 total reported tardies for the population. The mean number of tardies per student was 6.43. Approximately 943 students had one or more tardies; 170 students had 10 or more tardies; 83 students had 20 or more tardies. During semester 2 of the 2014-2015 school year, there were 356 transitions. There were 7,604 total reported tardies for the population. The mean number of tardies per student was 5.95. Eight hundred and eighty two students had 1 or more tardies; 203 students had 10 or more tardies; 89 students had 20 or more tardies. During semester 2 of the 2015-2016 school year, there were 446 transitions. There were 7,877 total reported tardies for the population. The mean number of tardies per student was 6.04. Approximately 684 students had 1 or more tardy; 133 students had 10 or more tardies; 102 students had 20 or more tardies.

The investigator also reviewed attendance from each semester of the 2014-2015 school year and compared the data with each semester of the 2015-2016 school year. Student enrollment for the 2014-2015 school year was 1278; student enrollment for the 2015-2016 school year was 1304.

Table 3

Summary Data for Attendance Rate for Entire Population

S1 2014-2015 Attendance Rate	S1 2015-2016 Attendance Rate	Percent Difference	S2 2014-2015 Attendance Rate	S2 2015-2016 Attendance Rate	Percent Difference
94.94%	95.29%	+.35%	93.24%	92.73%	-.51%

S1 2014-2015 Mean Number of Absences per Student	S1 2015-2016 Mean Number of Absences per Student	S2 2014-2015 Mean Number of Absences per Student	S2 2015-2016 Mean Number of Absences per Student
4.03	3.97	5.49	6.06

All students were reviewed, so some students may only be in one semester or one year of the data (2014-2015 seniors, 2015-2016 freshmen, and students who either left or came during this two-year span). For semester 1 of the 2014-2015 school year, 59 students had perfect attendance versus 52 students for semester 1 of the 2015-2016 school year. For semester 1 of the 2014-2015 school year, 21 students missed 25 days or more versus 13 students for semester 1 of the 2015-2016 school year. For semester 2 of the 2014-2015 school year, 84 students had perfect attendance versus 23 students for semester 2 of the 2015-2016 school year. For semester 2 of the 2014-2015 school year, 23 students missed 25 or more days versus 27 students for semester 2 of the 2015-2016 school year.

The investigator reviewed grades from each semester of the 2014-2015 school year and compared the data with each semester of the 2015-2016 school year. Grades were reviewed from the first semester of the 2014-2015 school year in six-week intervals and compared with the grades from the first semester of the 2015-2016 school year. Specifically, the total number of D's and F's were reviewed.

Table 4

Summary Data for Total Number of D's and F's for Entire Population

Grade Data—Total Number of Students with 1 or More D and 1 or More F	2014-2015 School Year	2015-2016 School Year	Percent Difference (a + indicates an increase from the previous year; a – indicates a decrease from the previous year
P1	109	60	-3.9%
P2	135	87	-3.9%
S1	84	77	-0.7%
P3	135	116	-1.7%
P4	121	95	-2.2%
S2	62	55	-.7%

In addition, grades from the second semester of the 2014-2015 school year were reviewed and compared to grades from the second semester of the 2014-2015 school year. Student enrollment for the 2014-2015 school year was 1,278; student enrollment for the 2015-2016 school year was 1,304. All students were reviewed, so some students may only be in one semester or one year of the data (2014-2015 seniors, 2015-2016 freshmen, and students who either left or came during this two-year span). The first grading period of first semester was identified as P1; the second grading period of first semester was identified as P2; the first semester grading period was identified as S1. The first grading period of second semester was identified as P3; the second grading period of second semester was identified as P4; the second semester grading period was identified as S2. For P1 of the 2014-2015 school year, 109 students had one or more D and F versus 60 students for P1 of the 2015-2016 school year. For P2 of the 2014-2015 school year, 135 students had one or more D and F versus 87 students for P2 of the 2015-2016 school year. For semester 1 of the 2014-2015 school year, 84 students had one or more D and F versus 77 students for semester 1 of the 2015-2016 school year. For P3 of the

2014-2015 school year, 135 students had one or more D and F versus 116 students for P3 of the 2015-2016 school year. For P4 of the 2014-2015 school year, 121 students had one or more D and F versus 95 students for P4 of the 2015-2016 school year. For semester 2 of the 2014-2015 school year, 62 students had one or more D and F versus 55 students for semester 2 of the 2015-2016 school year.

Table 5

Summary Data for Behavior for Entire Population

S1 2014-2015 Number of Events	S1 2015-2016 Number of Events	S2 2014-2015 Number of Events	S2 2015-2016 Number of Events
329	190	301	180

S1 2014-2015 Number of Students who had a Behavior Event	S1 2015-2016 Number of Students who had a Behavior Event	S2 2014-2015 Number of Students who had a Behavior Event	S2 2015-2016 Number of Students who had a Behavior Event
128	99	135	95

The investigator also reviewed behavior events from each semester of the 2014-2015 school year and compared the data with each semester of the 2015-2016 school year. Student enrollment for the 2014-2015 school year was 1,278; student enrollment for the 2015-2016 school year was 1,304. All students were reviewed, so some students may only be in one semester or one year of the data (2014-2015 seniors, 2015-2016 freshmen, and students who either left or came during this two-year span). For semester 1 of the 2014-2015 school year, 128 students had at least one behavior event versus 99 students for semester 1 of the 2015-2016 school year. For semester 1 of the 2014-2015 school year, 66 students had one event versus 58 students for semester 1 of the 2015-2016 school year. For semester 2 of the 2014-2015 school year, 84 students had one event versus 60 students for semester 2 of the 2015-2016 school year. For semester 2 of the 2014-2015 school year, 84 students had one event versus 67 students for semester 2

of the 2015-2016 school year. For semester 1 of the 2014-2015 school year, 20 students had five or more events versus six students for semester 1 of the 2015-2016 school year. For semester 2 of the 2014-2015 school year, 16 students had five or more events versus eight students for semester 2 of the 2015-2016 school year.

Summary data for Reading Plus intervention. Prior to the start of the 2015-2016 school year, 38 students were identified as being eligible for a Reading Plus Intervention to occur during study hall. Some students were removed from the intervention because their parents felt either that they did not need the intervention or felt that they did not want them to miss study hall to receive the intervention. The final intervention group included 22 students. Students who were identified had SRI scores that were close to grade level or one to two grade levels below their current grade level. Students with more significant reading deficits were either assigned to a reading intervention course which was a full course or already received specialized services through their IEP's; these students were not a focus of this study as these courses and services were already in place. Imbedding a Reading Plus intervention into study hall was a new intervention that began in the 2015-2016 school year.

Students' SRI scores prior to the intervention ranged from 751-1077 (fifth-eighth grade reading levels) (Sacket, 2015). The median was 914, and the mean was 988. After the intervention, the students' SRI scores ranged from 996-1367 (10th-post high school reading levels) (Sacket, 2015). The median was 1182, and the mean was 1153.

Students' vocabulary levels prior to the intervention ranged from 5.1-10.4 grade-level equivalent. The median was 7.75, and the mean was 8.02. After the intervention,

the students' vocabulary levels ranged from 7-11.8. The median was 9.6, and the mean was 9.24.

Students' comprehension levels prior to the intervention ranged from 6.2-11.3 grade-level equivalent. The median was 8.7, and the mean was 8.53. After the intervention, the students' comprehension levels ranged from 7.2-12.7. The median was 10.05, and the mean was 9.55.

Students' reading rates prior to the intervention ranged from 101-292 words per minute. The median was 197, and the mean was 160. After the intervention, the students' reading rates ranged from 105-248. The median was 177, and the mean was 170.

Summary

When a school implemented a significant change as in the case of Midwest Suburban High School, it was important to study the change to determine its success. While it was difficult to assess whether or not a cultural shift occurred within the timeframe of a single school year, data such as surveys, tardies, attendance, grades, discipline, and Reading Plus assisted in determining whether or not the school shifted its focus to support struggling learners while still maintaining high expectations and a quality curriculum for those students who had been successful at Midwest Suburban High School. In addition, change was difficult, and people may not have recognized the effectiveness of the change in a single school year as they were still adjusting to the change and experiencing a sense of loss, in many cases, of what was. However, the goal after this study was concluded was to afford additional professional development opportunities for teachers to modify delivery of their curriculum, to extend intervention

opportunities for students in both reading and math, and to expand teacher collaboration to include opportunities for inter-departmental collaboration and more conversations about specific students and how to best support them.

Chapter Four: Results

Introduction

Chapter Three focused on the plan utilized to collect data; Chapter Four focused on the actual data that was collected. This chapter showed the qualitative data that was collected—surveys from both students and staff members—as well as the quantitative data that was collected—tardies, attendance, grades, discipline, and Reading Plus data. Three research questions were investigated, and five hypotheses were tested. Each question and hypothesis was presented below along with the data collected to address each one.

Research Questions and Null Hypotheses

The following research questions and null hypotheses were investigated:

RQ1. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by student surveys?

RQ2. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by teacher surveys?

RQ3. How, if at all, will the implementation of a new master schedule contribute to the creation of a cultural shift as measured by student surveys and teacher surveys?

The null hypotheses for this mixed-methods study were as follows:

NH1. The implementation of a new master schedule will not support increased student accountability as measured by a decrease in the average number of tardies.

NH2. The implementation of a new master schedule will not support increased student accountability as measured by a decrease in the average number of days absent.

NH3. The implementation of a new master schedule will not support student improvement as measured by a decrease in the average number of D's and F's.

NH4. The implementation of a new master schedule will not support student improvement as measured by a decrease in the average number of behavior events.

NH5. The implementation of a new master schedule will not support student improvement as measured by an increase in SRI scores, vocabulary levels, comprehension levels, and reading rates from a targeted reading intervention.

Research Question 1

How, if at all, does the implementation of a new master schedule result in positive feedback as measured by student surveys?

On January 27, 2016, 1,304 students at Midwest Suburban High School received the appropriate consent/assent forms and a link to complete a survey via Survey Monkey to investigate Research Question 1. The deadline provided was February 3, 2016. Of these students, 503 responded to one or more of the questions: 143 freshmen, 128 sophomores, 138 juniors, and 93 seniors. A Likert scale was used for three statements that addressed the above research question to which students could respond in one of the following ways: strongly disagree, disagree, neutral, agree, or strongly agree. On May 3, 2016, the same survey was once again distributed to students to determine if there were differences in their answers from the initial survey to the final survey. The deadline provided was May 12, 2016. Of the 1,304 students, 348 responded to one or more of the questions: 111 freshmen, 102 sophomores, 79 juniors, and 56 seniors.

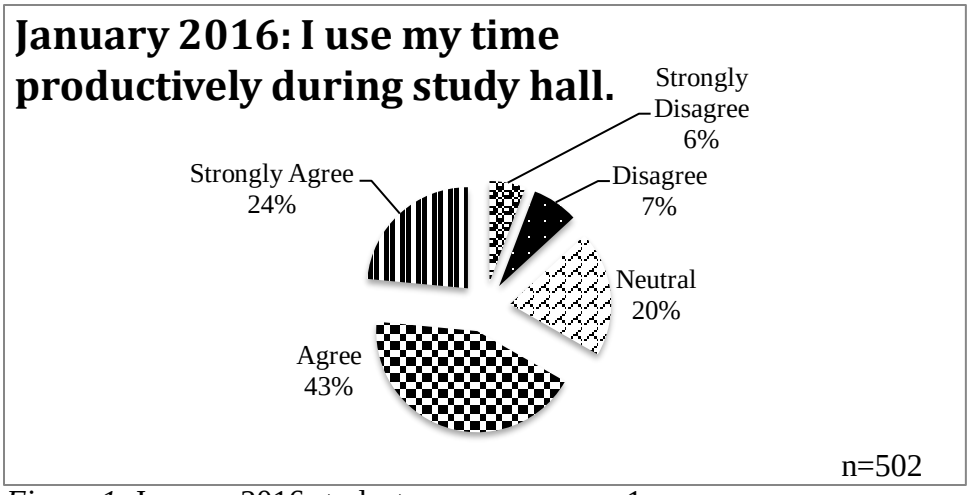

Figure 1. January 2016 student survey response 1.

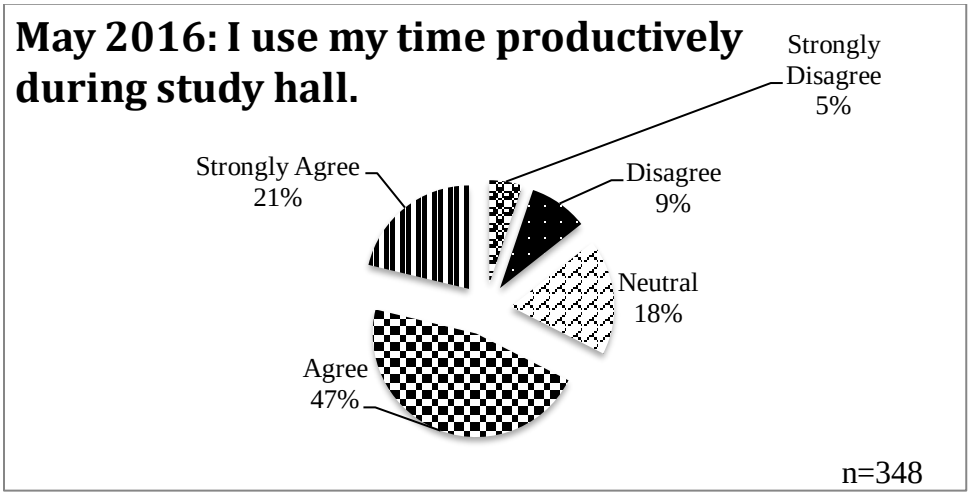

Figure 2. May 2016 student survey response 1.

For the January survey question, 502 responded. Twenty-nine strongly disagreed; 37 disagreed; 101 were neutral; 217 agreed; 119 strongly agreed. For the May survey, 348 responded. Eighteen strongly disagreed; 32 disagreed; 63 were neutral; 161 agreed; 74 strongly agreed. Initially, student responses indicated that 336, or 66.9%, felt positively, as indicated by a response of agree or strongly agree, about how they used their time during study hall; the second survey showed a difference in that 235, or 67.5%, indicated positive feelings, as indicated by a response of agree or strongly agree, about their productivity during study hall. There was an increase of .6% in positive responses between the January and May surveys. The pre and post survey responses did not show a

noteworthy change, making the answer to research question 1, based solely off this statement, inconclusive.

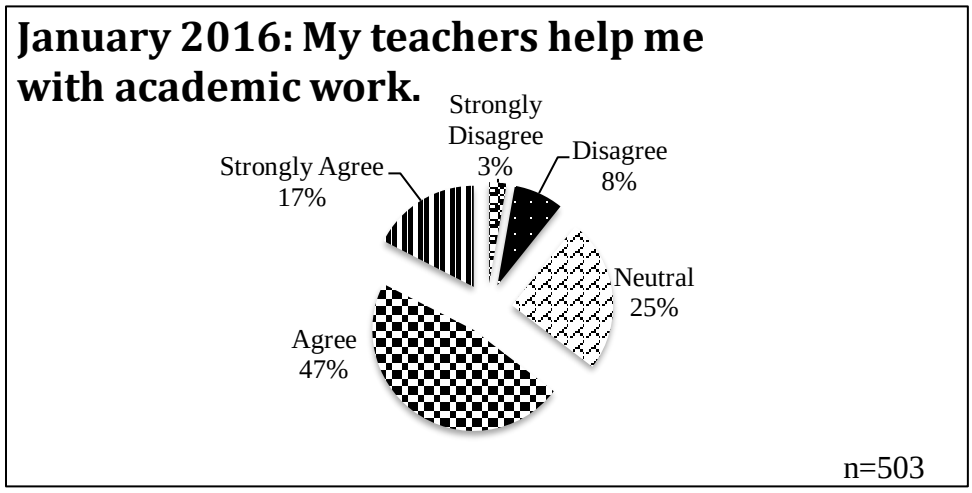

Figure 3. January 2016 student survey response 2.

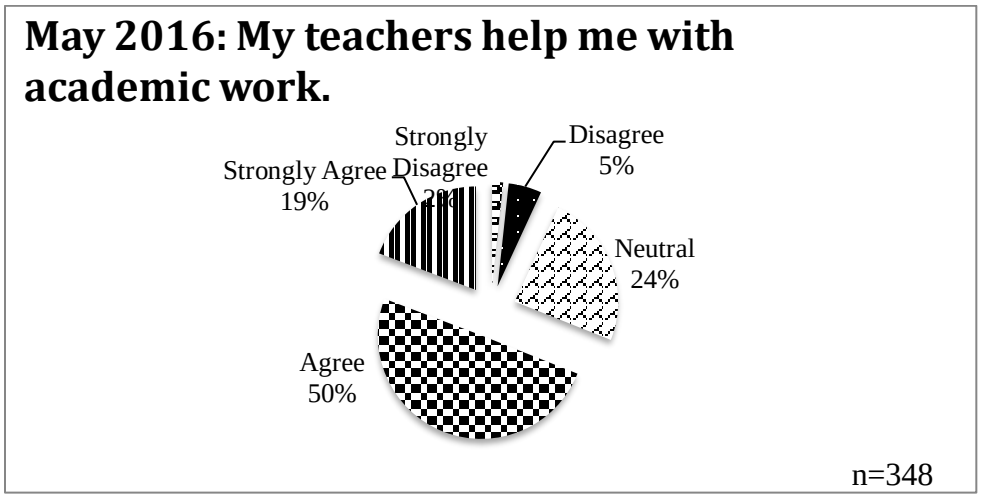

Figure 4. May 2016 student survey response 2.

For the January survey question, 503 responded. Fourteen strongly disagreed; 40 disagreed; 124 were neutral; 237 agreed; 88 strongly agreed. For the May survey, 348 responded. Six strongly disagreed; 18 disagreed; 84 were neutral; 173 agreed; 67 strongly agreed. Initially, student responses indicated that 325, or 64.6%, felt positively, as indicated by a response of agree or strongly agree, about teachers helping them with academic work; the second survey showed a difference in that 240, or 69.0%, indicated

positive feelings, as indicated by a response of agree or strongly agree, about their teachers helping them with academic work. There was an increase of 4.4% in positive responses between the January and May surveys, and there was a decrease of 3.8% in negative responses between the January and May surveys. The pre and post survey responses showed a positive increase, thus indicating that the implementation of a new master schedule did result in positive feedback as measured by student surveys.

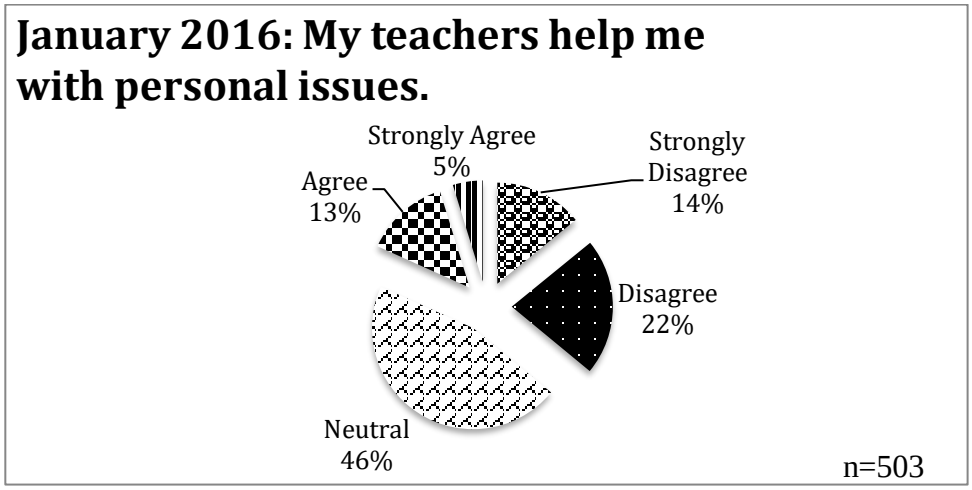

Figure 5. January 2016 student survey response 3.

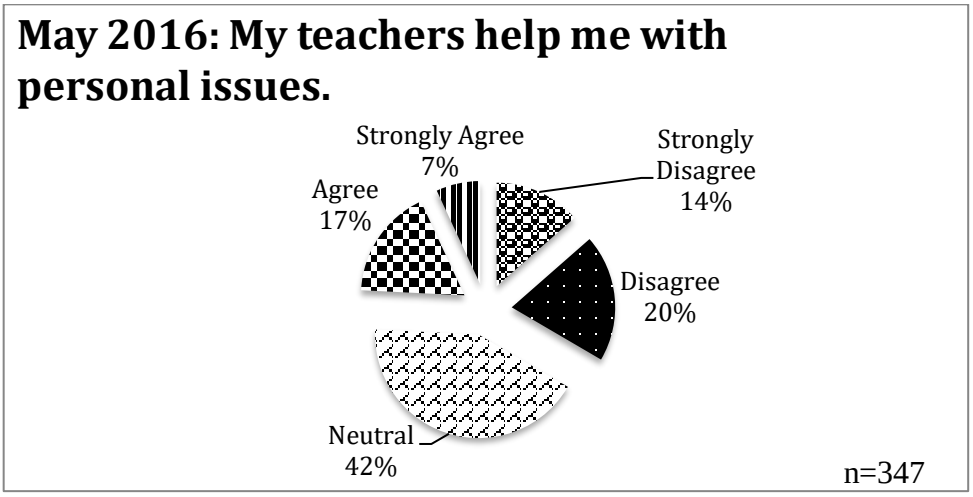

Figure 6. May 2016 student survey response 3.

For the January survey question, 503 responded. Seventy-one strongly disagreed; 110 disagreed; 230 were neutral; 68 agreed; 24 strongly agreed. For the May survey, 347

responded. Forty-seven strongly disagreed; 69 disagreed; 147 were neutral; 60 agreed; 24 strongly agreed. Initially, student responses indicated that 92, or 18.3%, felt positively, as indicated by a response of agree or strongly agree, about teachers helping them with personal issues; the second survey showed a difference in that 84, or 24.2%, indicated positive feelings, as indicated by a response of agree or strongly agree, about their teachers helping them with personal issues. There was an increase of 5.9% in positive responses between the January and May surveys, and there was a decrease of 2.6% in negative responses between the January and May surveys. The pre and post survey responses showed a positive increase, thus indicating that the implementation of a new master schedule did result in positive feedback as measured by student surveys.

In looking at the various responses for students related to research question 1, all of the areas tended to show improvement with a range of .6-5.9% gains, with the largest gain occurring in the area of students' perceptions that their teachers help them with personal issues. The smallest area of gains occurred with the survey question regarding students' productive use of study hall time; however, this statement elicited the highest positive response from the January survey with 66.9% of students responding positively to this statement. The largest area of gains occurred with the survey question regarding students' perceptions that teachers help them with personal issues; however, this statement elicited the lowest positive response from both the January and May surveys, at 18.3% and 24.2% respectively. The survey question that had the highest percentage of positive responses based on the May survey results with 69% of students responding positively to the statement was the one pertaining to students' perceptions that their teachers helped them with academic work. In looking at all three responses collectively,

all areas showed gains. Therefore, the implementation of a new master schedule did result in positive feedback as measured by student surveys.

Research Question 2

How, if at all, does the implementation of a new master schedule result in positive feedback as measured by teacher surveys?

On January 11, 2016, 106 teachers at Midwest Suburban High School received the appropriate consent form and a link to complete a survey via Survey Monkey. The deadline provided was January 19, 2016. Of these teachers, 76 responded to one or more of the questions. On May 6, 2016, the same survey was once again distributed to teachers to determine if there were differences in their answers from the initial survey to the final survey. The deadline provided was May 18, 2016. Fifty-eight responded to one or more questions. A Likert scale was used for two statements that addressed the above research question to which teachers could respond in one of the following ways: strongly disagree, disagree, neutral, agree, or strongly agree. Four statements that addressed the above research question were open-ended responses and were coded to identify common themes within the responses.

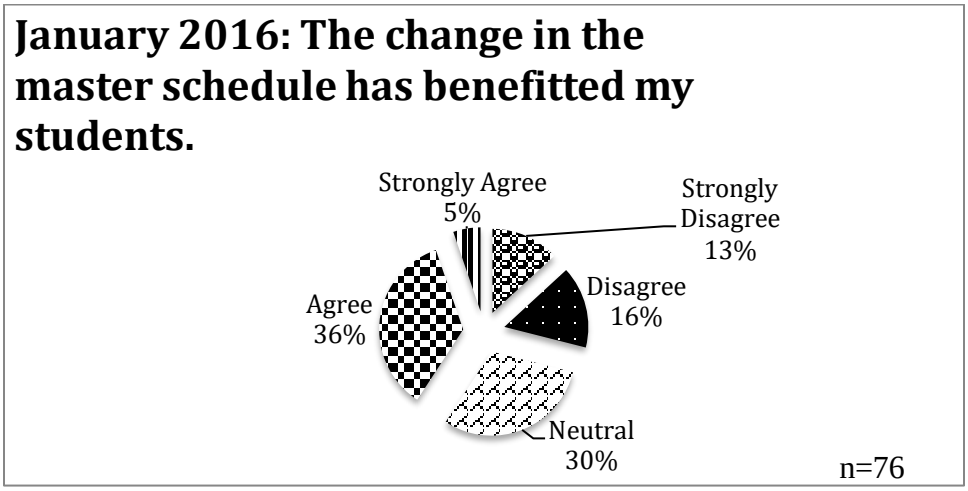

Figure 7. January 2016 teacher survey response 1.

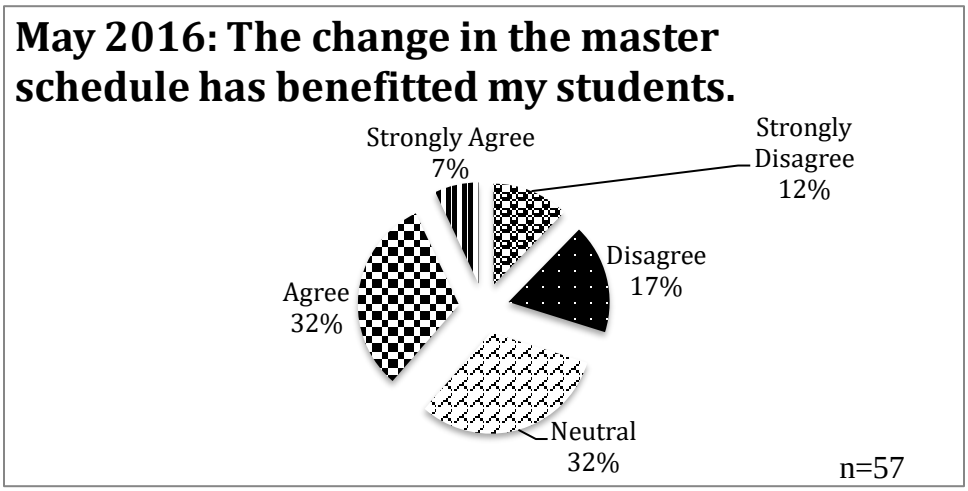

Figure 8. May 2016 teacher survey response 1.

For the January survey question, 76 responded. Ten strongly disagreed; 12 disagreed; 23 were neutral; 27 agreed; four strongly agreed. For the May survey, 57 responded. Seven strongly disagreed; 10 disagreed; 18 were neutral; 18 agreed; four strongly agreed. Initially, teacher responses indicated that 31, or 40.8%, felt positively, as indicated by a response of agree or strongly agree, that this change was benefitting the students at Midwest Suburban High School; the second survey showed a slight difference in that 22, or 38.6%, indicated positive feelings, as indicated by a response of agree or strongly agree, about this change benefitting students at Midwest Suburban High School. There was a decrease of 2.2% in positive responses between the January and May surveys, and there was an increase of .9% in negative responses between the January and May surveys. The pre and post survey responses did not show a positive increase, thus indicating that the implementation of a new master schedule did not result in positive feedback as measured by teacher surveys.

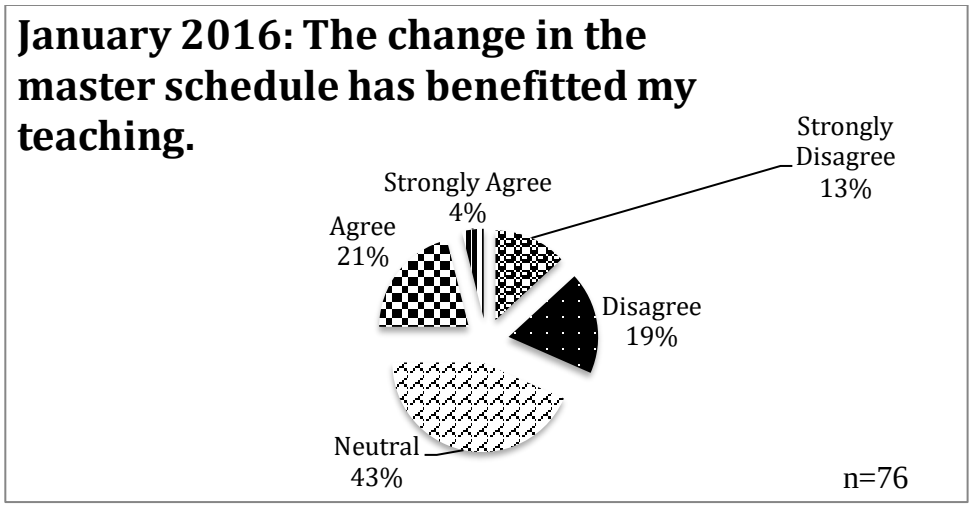

Figure 9. January 2016 teacher survey response 2.

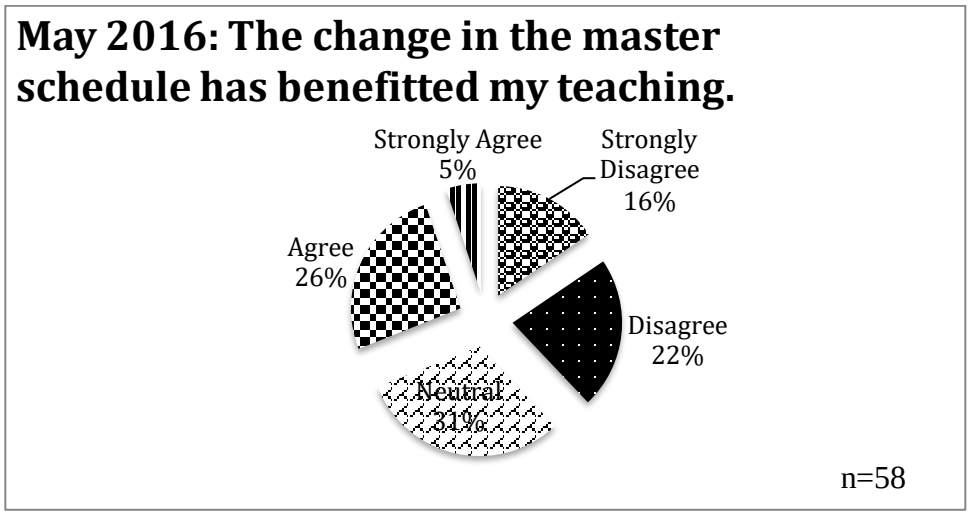

Figure 10. May 2016 teacher survey response 2.

For the January survey question, 76 responded. Ten strongly disagreed; 14 disagreed; 33 were neutral; 16 agreed; three strongly agreed. For the May survey, 58 responded. Nine strongly disagreed; 13 disagreed; 18 were neutral; 15 agreed; three strongly agreed. Initially, teacher responses indicated that 19, or 25%, felt positively, as indicated by a response of agree or strongly agree, that this change was benefitting their teaching; the second survey showed a difference in that 18, or 31%, indicated positive feelings, as indicated by a response of agree or strongly agree, about this change benefitting their teaching. There was an increase of 6.1% in positive responses between

the January and May surveys, and there was an increase of 6.3% in negative responses between the January and May surveys. Additionally, there was a decrease of 12.4% in neutral responses between the January and May surveys. The pre and post survey responses showed a positive increase but also a negative increase, thus indicating that the implementation of a new master schedule did not result in positive feedback as measured by teacher surveys.

The researcher also asked teachers an open-ended question to determine their perceptions regarding what was working with study hall. She then coded responses into three main categories, and the same categories were used for each survey sample. Parts of each respondent's answer could be coded under more than one heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: Structure (41 statements—57.7% of respondents), Accountability of Students (25 statements—35.2% of respondents), and Effectiveness (26 statements—36.6% of respondents). In May, the codes and quantity of responses under those codes were as follows: Structure (15 statements—28.8% of respondents), Accountability of Students (28 statements—53.8% of respondents), and Effectiveness (12 statements—23.1% of respondents). The following tables showed samples of responses that teachers provided regarding what was working with study hall time.

For the January survey question, 71 responded. For the May survey, 52 responded. There were common themes throughout both surveys. The structure was the most frequently cited example regarding what was working with study hall.

Table 6

January 2016: What is working with study hall time?

Structure Some responses under this category were as follows: "Better structure," "the halls are relatively clear," "bells to control when kids can leave a room," and "L periods create a clear structure that is beneficial to most students."
Accountability of Students Some responses under this category were as follows: "The limited travel forces students to prioritize and see the teachers they need to see without wasting time," "students held accountable for their grades and where they go each session," "the grade reporting sheet and the more structured time is working," and "students are managing their time better."
Effectiveness Some responses under this category were as follows: "More individualized help," "students have a purpose. I don't have to continuously interrupt my conversations with students," "students are coming to see me to get help. I am spending less time on distractions in my room and in the hall," and "students have more quiet study time."

Table 7

May 2016: What is working with study hall time?

Structure Some responses under this category were as follows: "The structure and asking students to plan ahead more," "structured time for students to see teachers," "less traffic in the halls," and "home room time at the beginning."
Accountability of Students Some responses under this category were as follows: "Students are more accountable for their whereabouts," "academic progress monitoring," "kids are more accountable for their time/location," and "students having to choose wisely about how they use their time."
Effectiveness Some responses under this category were as follows: "Students have a focused amount of time to dedicate to a task," "teachers are able to utilize and schedule students for specific meetings and conferences due to the time-partitioned nature of the [study hall] labs," "students plan to attend the classes where they need help," and "students can see teachers."

Teachers spoke to the defined periods, the bell system, and the limits on student travel as being the structural elements that improved this time. In addition, students were expected to monitor grades and to be accountable for where they were going. This was

another example of something that teachers felt was working with study hall. Lastly, the change increased effectiveness. The defined times allowed teachers to conduct specific review sessions, to schedule times to meet with a particular student or a class, and to monitor students and their behavior more effectively as students were not entering and exiting classes at undefined times.

The researcher also asked teachers an open-ended question to determine their perceptions regarding what was not working with study hall. She then coded responses into three main categories, and parts of each respondent's answer could be coded under more than one heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: Structure (17 statements—25% of respondents), Accountability/Enforcement (31 statements—45.6% or respondents), and Frequency (18 statements—26.5% or respondents). In May, the codes and quantity of responses under those codes were as follows: Structure (15 statements—30% of respondents), Accountability/Enforcement (25 statements—50% of respondents), and Frequency (11 statements—22% of respondents). The following tables showed samples of responses that teachers provided regarding what was not working with study hall time.

For the January survey question, 68 responded. For the May survey, 50 responded. There were common themes throughout both surveys. Accountability/enforcment was the most frequently cited example of what was not working with study hall.

Table 8

January 2016: What is not working with study hall time?

Structure Some responses under this category were as follows: "If a [study hall] is crowded and teacher can't get to a student in the 20 minute sessions, student may not get help that day if they need to go to a different [study hall] during the next session;" "a lot of transition—can be difficult to monitor because students do not check back in at the end, difficult to establish connection with freshmen;" "students feel more restricted," and "not enough interventions."
Accountability/Enforcement Some responses under this category were as follows: "Influx of students into [study hall] rooms due to collaboration meetings—changes classroom culture of studying, disruptions from these students pull the teacher from working with students seeking help and forces the teacher to focus on classroom management;" "not all faculty are enforcing limits on travel," "too many kids are still making up their own rules," and "difficult to determine if students are going where they say."
Frequency Some responses under this category were as follows: "It is difficult for some intervention activities to occur on a less frequent basis," "students need to see teachers more often, twice a week;" "there are too few days for [study hall], and time for students is further limited by forced collaboration," and "the very frequent 'other' items that are scheduled during [study hall] (such as screenings, assemblies, etc.); students value their [study hall] and it should not be lost—especially multiple times in a row or near the end of a grading period, which has happened this year."

Teachers spoke to the difficulty of determining if students were going where they said they were going, of concerns regarding consistent enforcement by all staff, and of students using this time productively. While structure was cited as the most frequent response as to what was working with study hall, there was still feedback regarding how the structure was not working. Some felt that the imbedded teacher collaboration time was damaging to the structure and that only three travel opportunities was limiting for students. Lastly, teachers expressed concern regarding the frequency. Study hall occurred every third day in this new schedule configuration rather than every other day in the old schedule configuration. In addition, this time was also used for meetings and all-

class assemblies which also created concerns for teachers as some felt that students did not have enough opportunities to access their teachers.

Table 9

May 2016: What is not working with study hall time?

Structure Some responses under this category were as follows: "The constriction of only 3 places some can go," "collaboration time often disrupts the ability for students to seek help when a large contingent of teachers are unavailable," "sometimes a student can see two teachers in a 20 minute block and with the new system they can't," and "collaboration prevents students from having the ability to get help when they need it."
Accountability/Enforcement Some responses under this category were as follows: "Students say they're going somewhere, but we don't know if they get there," "teachers/students not following the proper protocol with regards to the L1-3 time slots," "teachers allowing students to leave mid period," and "some students don't use time appropriately to study."
Frequency Some responses under this category were as follows: "Too many other requirements during [study hall]-need to protect it," "they are too infrequent," "it only happens once a week sometimes and that is not enough for the kids to get things finished they need to do and to meet with their teachers," and "it is rushed and infrequent."

Next, the researcher asked teachers an open-ended question to determine their perceptions regarding what they liked about the new master schedule. She then coded responses into three main categories, and parts of each respondent's answer could be coded under more than one heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: Frequency (37 statements—52.1% of respondents), Traditional Days (11 statements—15.5% of respondents), and Change (11 statements—15.5% of responses). In May, the codes and quantity of responses under those codes were as follows: Frequency (24 statements—49% of respondents), Traditional Days (six statements—12.2% of respondents), and Change (10 statements—20.4% of respondents). The

following tables showed samples of responses that teachers provided regarding what they liked about the new master schedule.

Table 10

January 2016: What do you like about the new master schedule?

Frequency Some responses under this category were as follows: "Teachers see their students more frequently," "I like that I see my students more often, and that I don't have to reteach as much (students see the material more often so they retain it better);" "seeing the kids more in minutes per week," and "I do like the more frequent class contact time with my students—I feel like I got to know them faster and establish rapport."
Traditional Days Some responses under this category were as follows: "I like the [traditional] day…it's great to be able to see the kids more frequently," "It has opened some opportunity for different types of lessons," "the day flows well; they work great for my shorter lessons, and I teach the same lesson to all of my classes," and "shorter class periods have been great for testing, review, etc."
Change Some responses under this category were as follows: "I like change and have followed the same schedule here for 15 years; it forces teachers to reconsider/think/plan their curriculum;" "I like that it forces us out of our comfort zones as teachers; we can't use the same plans that we've used for years, and we have to think creatively about planning; it also provides a gateway to collaboration because planning is an easy entry point to collaboration;" and "I like the change up in days; it allows me to do more."

For the January survey question, 71 responded. For the May survey, 49 responded. There were common themes throughout both surveys. Frequency was the most often cited example of what teachers liked about the new master schedule. Teachers spoke to the benefits of seeing their students more regularly, of getting to know them more quickly than they did in the old schedule configuration, and of needing to reteach less as a result of the frequency of class meetings.

Change in general was given as another reason as some felt that the change in pace between the different class periods offered teachers with opportunities to improve

their teaching and that it forced people out of their comfort zones, requiring them to revisit curriculum that may have not been revisited for some time.

Table 11

May 2016: What do you like about the new master schedule?

Frequency Some responses under this category were as follows: "I like seeing the students more often," "I can see students more often, and I think that is very important;" "more time with students," and "more contact days per week."
Traditional Days Some responses under this category were as follows: "[Traditional] days allow for instructional variety and flexibility that was not there before," "having the [traditional] day helps at times act as a review to ensure student learning," "[traditional] days are a good way to get variety in the lessons," and "I like the [traditional] day."
Change Some responses under this category were as follows: "I think having the change of days changes the pace of the class and allows me to improve the way I teach," "forced me to revisit curriculum and look for ways to improve it," "like the mix of block and [traditional] days," and "everything."

Lastly, some expressed that the incorporation of the traditional day was something that they liked about the new master schedule, stating that they were good for reviews, for skills reinforcement, and for changing the pace of the week.

Teachers were next asked an open-ended question to determine their perceptions regarding what they did not like about the new master schedule. Answers were coded into three main categories, and parts of each respondent's answer could be coded under more than one heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: 3-day Rotation (22 statements—31.4% of respondents), Traditional Days (23 statements—32.4% of respondents), and Stress (21 statements—29.6% of respondents). In May, the codes and quantity of responses under those codes were as follows: 3-day

Rotation (19 statements—37.3% of respondents), Traditional Days (16 statements—31.4% of respondents), and Stress (12 statements—23.5% of respondents). The following tables showed samples of responses that teachers provided regarding what they did not like about the new master schedule.

Table 12

January 2016: What don't you like about the new master schedule?

3-day Rotation Some responses under this category were as follows: "I have difficulty maintaining the 3 day rotations without significant scheduling," "it is too confusing to have each week so different," "the rhythm is off, can never get used to the flow of it;" and "I realize that the schedule follows a pattern, but week to week it looks different."
Traditional Days Some responses under this category were as follows: "The students feel very rushed on a [traditional] day; I feel very rushed," "[traditional] days are exhausting and hard to plan lessons for them," "the [traditional] days are exhausting; I would prefer fewer [traditional] days, maybe one per week;" and "the shorter class times."
Stress Some responses under this category were as follows: "A lot of work to redesign my courses to fit the schedule," "It is clearly bad for the students; they are stressed beyond anything I have ever seen as a teacher," "students are stressed, teachers are stressed, and I actually have to sacrifice some material (although it may be that I am covering other topics in more depth," and "I am having to change everything I do; lunches are not the same time every day."

For the January survey question, 70 responded. For the May survey, 51 responded. There were common themes throughout both surveys. While the categories were pretty similar in terms of quantity of responses, the most frequently cited reason that teachers gave regarding what they did not like about the new master schedule was the 3-day rotation. Teachers felt that it was difficult getting into a rhythm with a 3-day cycle of traditional day, block A day, and block B day and that more planning ahead was required in order to keep organized. Again, while the traditional day was given as a reason

teachers did like the new master schedule, it was also given as a reason that teachers did not like the new master schedule.

Table 13

May 2016: What don't you like about the new master schedule?

3-day Rotation Some responses under this category were as follows: "I would like a [traditional day] to be set, always on a Monday or Wednesday, for example;" "the three day rotation just hasn't become automatic yet, so it takes more time for planning—I am hoping that comes with time!," "[traditional days] are hectic," and "it is difficult to maintain a rhythm bouncing back and forth with 90 to 50 minutes."
Traditional Days Some responses under this category were as follows: "[Traditional day]. It is hurried; some colleagues are still giving out as much work as on [block days]," "too many short periods," "[traditional days] not beneficial to subject," and "students have come to expect to not do anything during [traditional days]."
Stress Some responses under this category were as follows: "Planning lessons and scheduling homework appropriately has been difficult at times but improved throughout the year," "I've found it difficult to keep up with grading/planning more so than in the more regular alternating block," "makes it challenging to plan," and "planning/homework is difficult because of how the three-day routine works; can draw out a unit that shouldn't be drawn out in order to avoid assigning homework inequitably."

Some felt that a 50-minute period was too rushed, that some teachers were giving out too much homework, and that some students did not have the expectation of doing work on these days. Lastly, teachers identified stress as a final major component of what they did not like about the new master schedule. They identified difficulty in planning lessons and homework and the time involved in making adjustments to their current lesson delivery.

The researcher then asked teachers an open-ended question to determine on what they wanted to focus as the school moved forward. She coded responses into three main categories, and parts of each respondent's answer could be coded under more than one

heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: Communication/Trust (12 statements—17.9% of respondents), Schedule (11 statements—16.4% of respondents), and Supporting All Students (23 statements—34.3% of respondents). In May, the codes and quantity of responses under those codes were as follows: Communication/Trust (10 statements—24.4% of respondents), Schedule (13 statements—31.7% of respondents), and Supporting All Students (12 statements—29.3% of respondents). The following tables showed samples of responses that teachers provided regarding on what they wanted to focus as the school moved forward.

Table 14

January 2016: What is one thing on which you would like to focus as we move forward?

Communication/Trust Some responses under this category were as follows: "Trust and working as a team," "value student and teacher voice by building channels and opportunities for authentic and critical conversations where dissent is not seen as an attack," "democracy," and "continue to improve communication regarding schedules for students so they (and their parents) can select the best classes for them and their quality of life."
Schedule Some responses under this category were as follows: "How can we use the change in the schedule to set up interventions to support ALL students," "lunch schedule—it is really had to switch lunches with other teachers; there should be more flexibility for those who have B lunch and give tests," "figuring out how to better adapt the schedule to a more efficient routine," and "we should focus on deciding which day of every week is the [traditional] day."
Supporting All Students Some responses under this category were as follows: "Meeting the needs of some of the subgroups who are under performing as well as supporting mid level students with needed interventions and opportunities," "focus on the needs of the students rather than the desire of the parents," "how to help all students, true universal supports," and "encouraging students and parents to not get caught up in the AP culture; it is ok for students to branch out and enjoy themselves during HS."

Table 15

May 2016: What is one thing on which you would like to focus as we move forward?

Communication/Trust Some responses under this category were as follows: "Making sure all perspectives and representations of our student body, faculty, and staff are considered (and included, when applicable) in the final decision-making process for our building and our district," "making sure everyone is well-informed," "continuing to listen to teacher input and to continue making us feel heard," and "continue to support us as you have been."
Schedule Some responses under this category were as follows: "Lunch flexibility," "I would like to focus on making the [traditional day] process easier on students," "more [study hall] time," and "rethink the [3-day] rotation in the schedule."
Supporting All Students Some responses under this category were as follows: "I think having an on-going dialogue about universal supports for all students in the building would benefit the school community," "how to challenge and assist all students," "still focus on learning of all students, how to build opportunities and support structures for all kids;" and "overall picture of a student's high school experience and realistic expectations for their individual future."

For the January survey question, 67 responded. For the May survey, 41 responded. There were common themes throughout both surveys. The three main categories identified had nearly the same number of responses. Teachers felt that administration needed to continue to keep communication lines open and to value all voices, even if they were dissenting. They also identified a desire to review the current lunch rotation, on working to make the traditional day less stressful, and on considering a stationary traditional day. Lastly, they wanted to continue the school's focus on working to support all students by incorporating universal supports, by building opportunities for all students, and by continuing specialized support for students who were struggling.

In looking at the Likert scale responses for teachers related to Research Question 2, one area—the change benefitted instruction—tended to show improvement with a percentage of 6.1% gains, while another area—the change benefitted students—did not

show improvement with a percentage of 2.2% setbacks. The largest area of gains, 6.1%, occurred with the survey question regarding teachers feeling that the change in the master schedule benefited their teaching; however, this statement also had the largest area of setbacks, 6.3%. The survey question regarding teachers feeling that the change in the master schedule benefitted students showed gains of 2.2% but also setbacks of .9%. The pre and post survey responses showed a positive increase but also a negative increase. In looking at the various open-ended responses for teachers related to Research Question 2, the overall themes were working on ways to continue to support all students, through the positive feedback of the structure of study hall, through the constructive feedback to improve accountability and enforcement during this time, through the increased frequency of class meetings, and through finding ways to learn to effectively utilize the traditional days in the new master schedule. Teachers also identified stress as a factor that needed to be addressed but also recognized that change was a good thing and with that came stress as people adjusted. Overall, the open-ended responses yielded positive and constructive feedback and did not have a largely negative tone. In analyzing the Likert scale statements as well as the open-ended responses, the feedback was overall positive, thus indicating that the implementation of a new master schedule did result in positive feedback as measured by teacher surveys.

Research Question 3

How, if at all, does the implementation of a new master schedule contribute to the creation of a cultural shift as measured by student surveys and teacher surveys?

Student surveys. On January 27, 2016, 1,304 students at Midwest Suburban High School received the appropriate consent/assent forms and a link to complete a

survey via Survey Monkey to investigate Research Question 3. The deadline provided was February 3, 2016. Of these students, 503 responded to one or more of the questions: 143 freshmen, 128 sophomores, 138 juniors, and 93 seniors. A Likert scale was used for two statements that addressed the above research question to which students could respond in one of the following ways: strongly disagree, disagree, neutral, agree, or strongly agree.

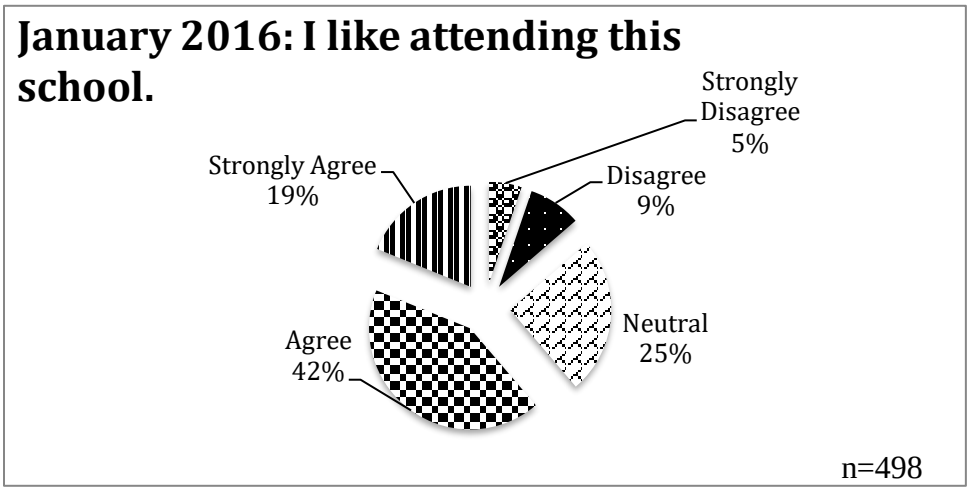

Figure 11. January 2016 student survey response 4.

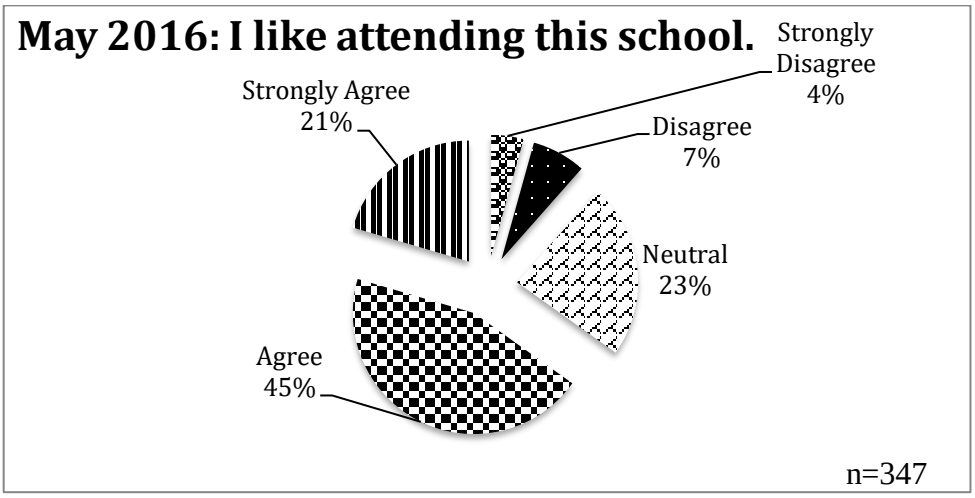

Figure 12. May 2016 student survey response 4.

On May 3, 2016, the same survey was once again distributed to students to determine if there were differences in their answers from the initial survey to the final

survey. The deadline provided was May 12, 2016. Of these students, 348 responded to one or more of the questions: 111 freshmen, 102 sophomores, 79 juniors, and 56 seniors.

For the January survey question, 498 responded. Twenty-six strongly disagreed; 42 disagreed; 125 were neutral; 211 agreed; 94 strongly agreed. For the May survey, 347 responded. Fifteen strongly disagreed; 25 disagreed; 81 were neutral; 155 agreed; 71 strongly agreed. Initially, student responses indicated that 305, or 61.2%, felt positively, as indicated by a response of agree or strongly agree, about attending Midwest Suburban High School; the second survey showed a difference in that 226, or 65.1%, indicated positive feelings, as indicated by a response of agree or strongly agree, about attending Midwest Suburban High School. There was an increase of 3.9% in positive responses between the January and May surveys, and there was a decrease of 2.2% in negative responses between the January and May surveys. The pre and post survey responses showed a positive increase, thus indicating that the implementation of a new master schedule contributed to the creation of a cultural shift as measured by student surveys.

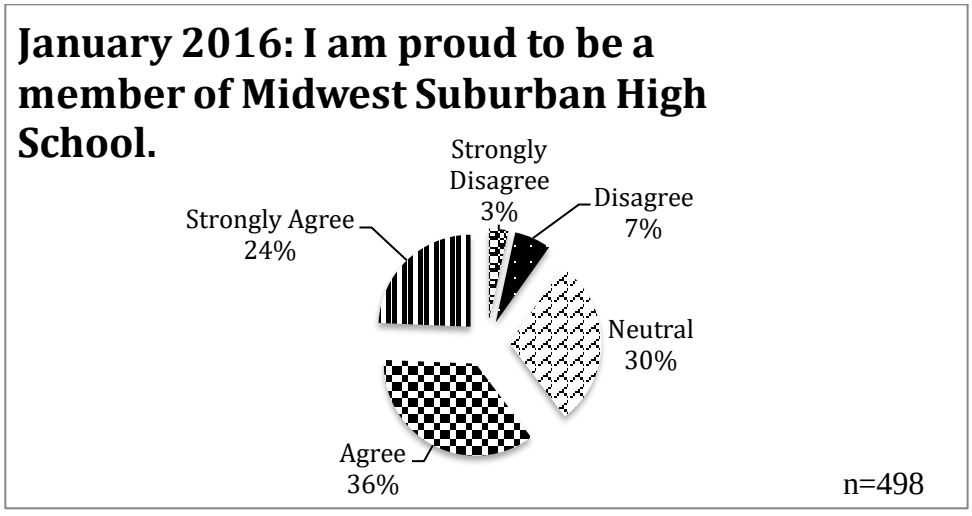

Figure 13. January 2016 student survey response 5.

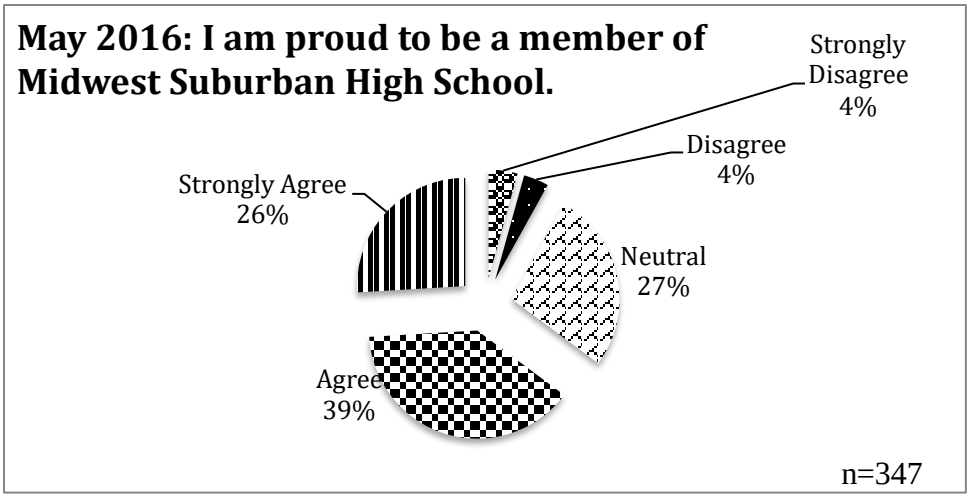

Figure 14. May 2016 student survey response 5.

For this January survey question, 498 responded. Seventeen strongly disagreed; 32 disagreed; 149 were neutral; 179 agreed; 121 strongly agreed. For the May survey, 347 responded. Fifteen strongly disagreed; 13 disagreed; 94 were neutral; 135 agreed; 90 strongly agreed. Initially, student responses indicated that 300, or 60.2%, felt positively, as indicated by a response of agree or strongly agree, about being a member of Midwest Suburban High School; the second survey showed a difference in that 225, or 64.8%, indicated positive feelings, as indicated by a response of agree or strongly agree, about being a member of Midwest Suburban High School. There was an increase of 4.6% in positive responses between the January and May surveys, and there was a decrease of 1.8% in negative responses between the January and May surveys. The pre and post survey responses showed a positive increase, thus indicating that the implementation of a new master schedule contributed to the creation of a cultural shift as measured by student surveys.

In looking at the various responses for students related to Research Question 3, all of the areas tended to show improvement with a range of 3.9-4.6% gains. The largest area of gains occurred with the survey question regarding students' pride in attending Midwest

Suburban High School with a gain of 4.6%. The smallest area of gains occurred with the survey question regarding whether or not students liked attending Midwest Suburban High School; however, this statement elicited the highest positive response from the January survey with 61.2% of students responding positively to this statement. In looking at the two student responses collectively, all areas showed gains. Therefore, the implementation of a new master schedule contributed to the creation of a cultural shift as measured by student surveys.

Teacher surveys. On January 11, 2016, 106 teachers at Midwest Suburban High School received the appropriate consent form and a link to complete a survey via Survey Monkey. The deadline provided was January 19, 2016. Of these teachers, 76 responded to one or more of the questions. On May 6, 2016, the same survey was once again distributed to teachers to determine if there were differences in their answers from the initial survey to the final survey. The deadline provided was May 18, 2016. Fifty-eight responded to one or more questions. A Likert scale was used for six statements that addressed the above research question to which teachers could respond in one of the following ways: strongly disagree, disagree, neutral, agree, or strongly agree. Two statements that addressed the above research question were open-ended responses and were coded to identify common themes within the responses.

For the January survey question, 76 responded. One strongly disagreed; four disagreed; 11 were neutral; 40 agreed; 20 strongly agreed. For the May survey, 58 responded. One strongly disagreed; five disagreed; 10 were neutral; 26 agreed; 16 strongly agreed. Initially, teacher responses indicated that 60, or 78.9%, felt that a shift, as indicated by a response of agree or strongly agree, had occurred; the second survey

showed a difference in that 42, or 72.4%%, indicated that a shift, as indicated by a response of agree or strongly agree, occurred.

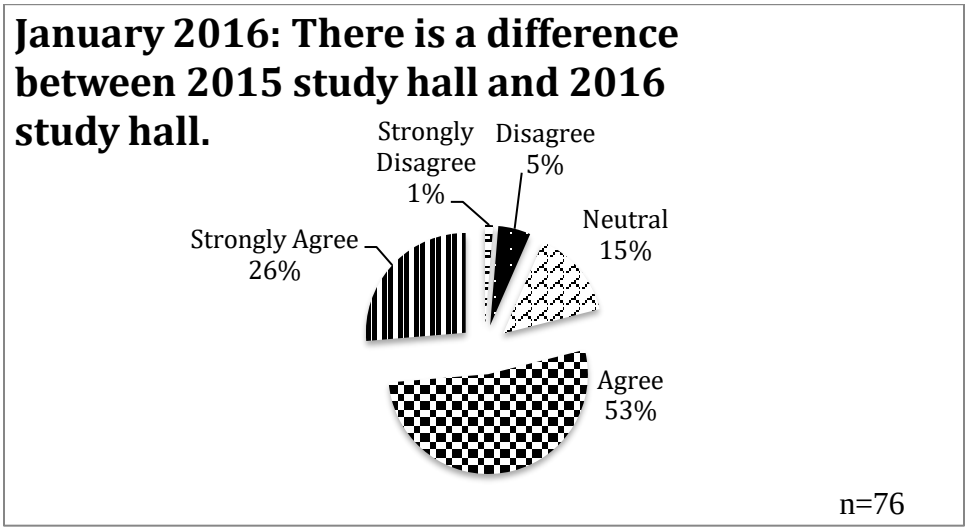

Figure 15. January 2016 teacher survey response 3.

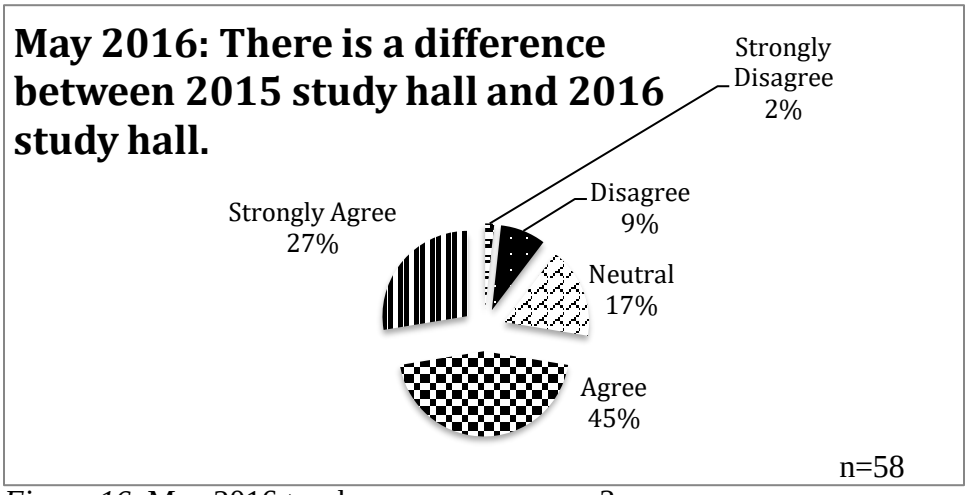

Figure 16. May 2016 teacher survey response 3.

There was a decrease of 6.5% in positive responses between the January and May surveys, and there was an increase of 3.7% in negative responses between the January and May surveys. Additionally, there was a decrease of 12.4% in neutral responses between the January and May surveys. The pre and post survey responses did not show a positive increase and also showed a negative increase, thus indicating that the

implementation of a new master schedule did not contribute to the creation of a cultural shift as measured by teacher surveys.

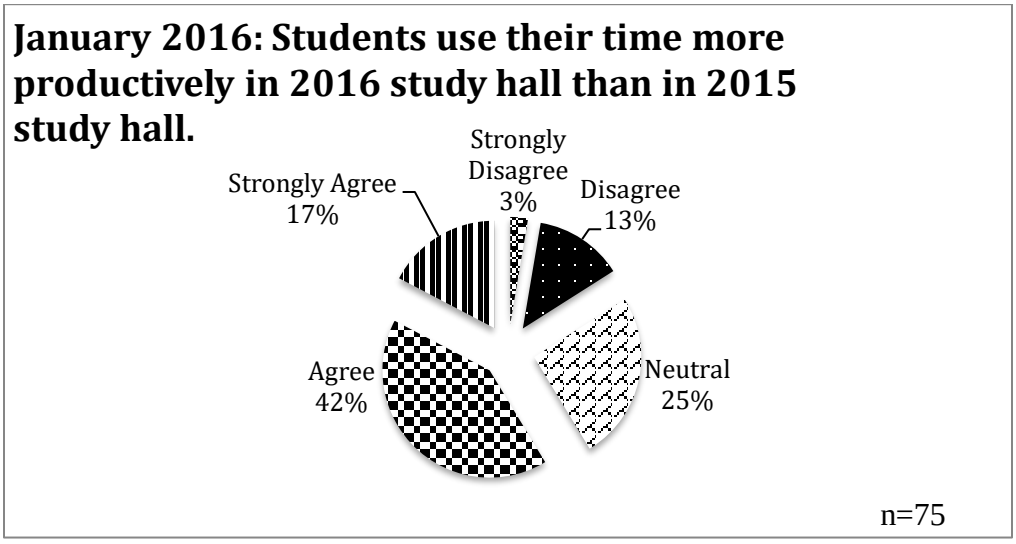

Figure 17. January 2016 teacher survey response 4.

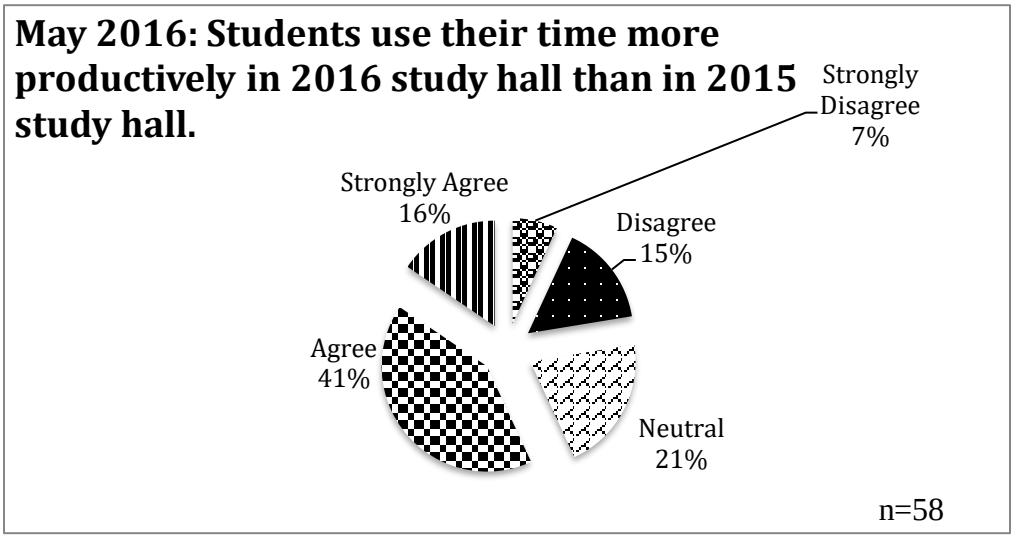

Figure 18. May 2016 teacher survey response 4.

For the January survey question, 75 responded. Two strongly disagreed; 10 disagreed; 19 were neutral; 31 agreed; 13 strongly agreed. For the May survey, 58 responded. Four strongly disagreed; nine disagreed; 12 were neutral; 24 agreed; nine strongly agreed. Initially, teacher responses indicated that 44, or 58.7%, felt that a shift,

as indicated by a response of agree or strongly agree, had occurred; the second survey showed a difference in that 34, or 56.9%, indicated that a shift, as indicated by a response of agree or strongly agree, occurred. There was a decrease of 1.8% in positive responses between the January and May surveys, and there was an increase of 6.4% in negative responses between the January and May surveys. The pre and post survey responses did not show a positive increase and also showed a negative increase, thus indicating that the implementation of a new master schedule did not contribute to the creation of a cultural shift as measured by teacher surveys.

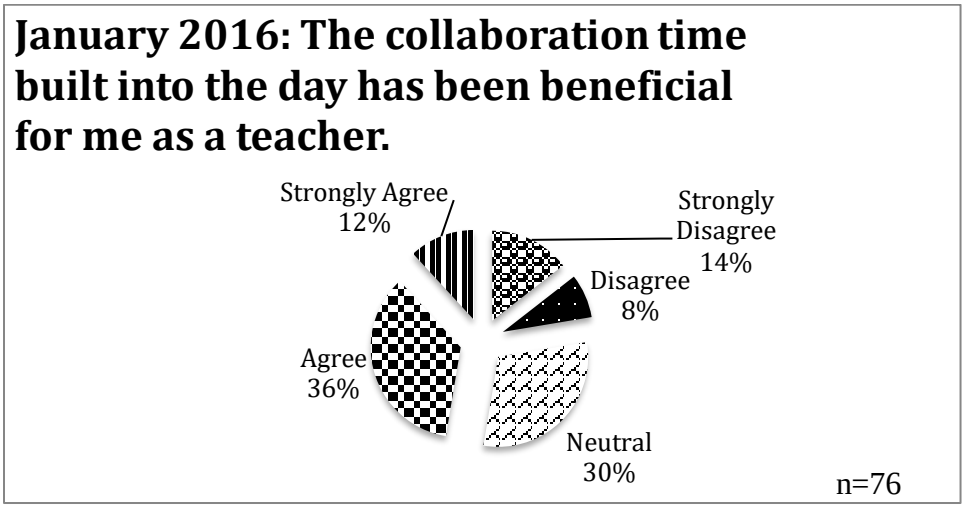

Figure 19. January 2016 teacher survey response 5.

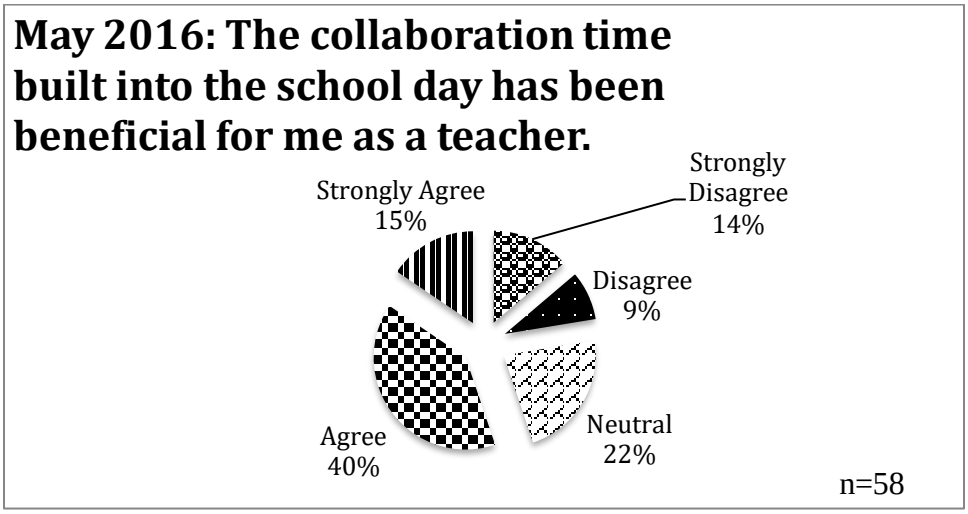

Figure 20. May 2016 teacher survey response 5.

For the January survey question, 76 responded. Eleven strongly disagreed; six disagreed; 23 were neutral; 27 agreed; nine strongly agreed. For the May survey, 58 responded. Eight strongly disagreed; five disagreed; 13 were neutral; 23 agreed; nine strongly agreed. Initially, teacher responses indicated that 36, or 47.4%, felt that a shift, as indicated by a response of agree or strongly agree, had occurred; the second survey showed a difference in that 32, or 55.2%, indicated that a shift, as indicated by a response of agree or strongly agree, occurred. There was an increase of 7.8% in positive responses between the January and May surveys, and there was neither an increase nor a decrease in negative responses between the January and May surveys. The pre and post survey responses showed a positive increase and also did not show a negative increase, thus indicating that the implementation of a new master schedule contributed to the creation of a cultural shift as measured by teacher surveys.

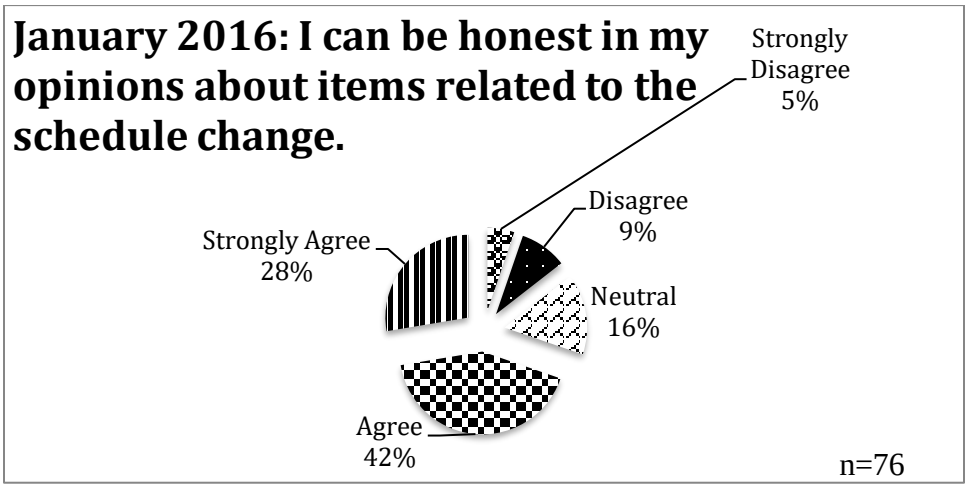

Figure 21. January 2016 teacher survey response 6.

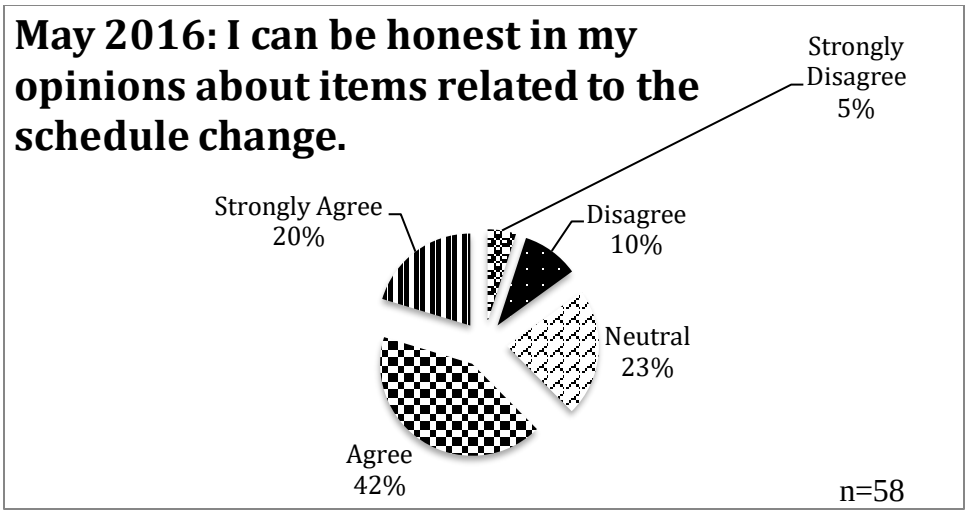

Figure 22. May 2016 teacher survey response 6.

For the January survey question, 76 responded. Four strongly disagreed; seven disagreed; 12 were neutral; 32 agreed; 21 strongly agreed. For the May survey, 58 responded. Two strongly disagreed; four disagreed; nine were neutral; 29 agreed; 14 strongly agreed. Initially, teacher responses indicated that 53, or 69.7%, felt that a shift, as indicated by a response of agree or strongly agree, had occurred; the second survey showed a difference in that 43, or 74.1%, indicated that a shift, as indicated by a response of agree or strongly agree, occurred. There was an increase of 4.4% in positive responses between the January and May surveys, and there was a decrease of 4.1% in negative responses between the January and May surveys. The pre and post survey responses showed a positive increase and a negative decrease, thus indicating that the implementation of a new master schedule contributed to the creation of a cultural shift as measured by teacher surveys.

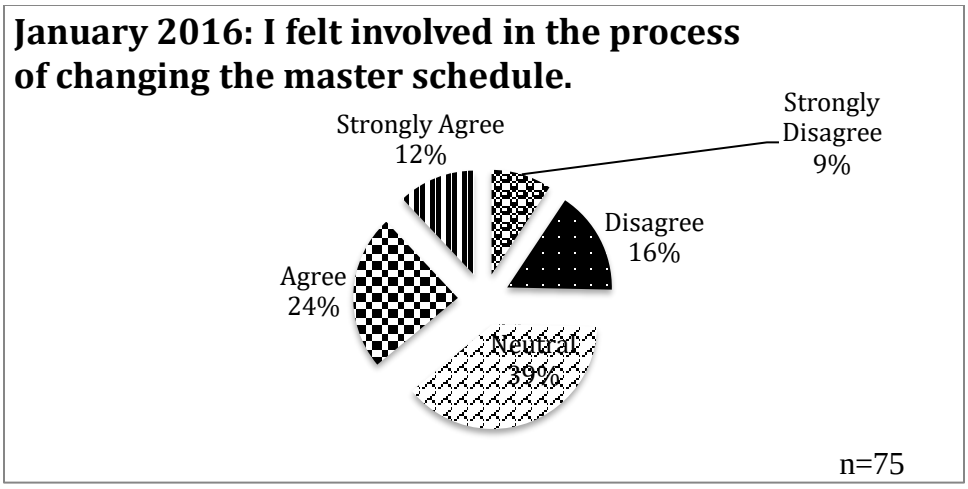

Figure 23. January 2016 teacher survey response 7.

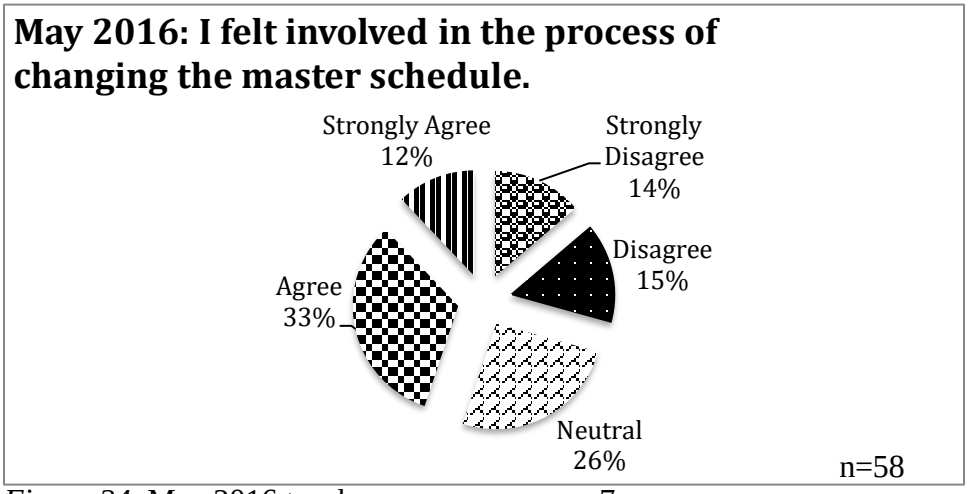

Figure 24. May 2016 teacher survey response 7.

For the January survey question, 75 responded. Seven strongly disagreed; 12 disagreed; 29 were neutral; 18 agreed; nine strongly agreed. For the May survey, 58 responded. Eight strongly disagreed; nine disagreed; 15 were neutral; 19 agreed; seven strongly agreed. Initially, teacher responses indicated that 27, or 36%, felt that a shift, as indicated by a response of agree or strongly agree, had occurred; the second survey showed a difference in that 26, or 44.8%, indicated that a shift, as indicated by a response of agree or strongly agree, occurred. There was an increase of 8.8% in positive responses between the January and May surveys, and there was an increase of 4% in negative responses between the January and May surveys. Additionally, there was a decrease of

12.8% in neutral responses between the January and May surveys. The pre and post survey responses did show a positive increase but also a negative increase, thus indicating that the implementation of a new master schedule did not contribute to the creation of a cultural shift as measured by teacher surveys.

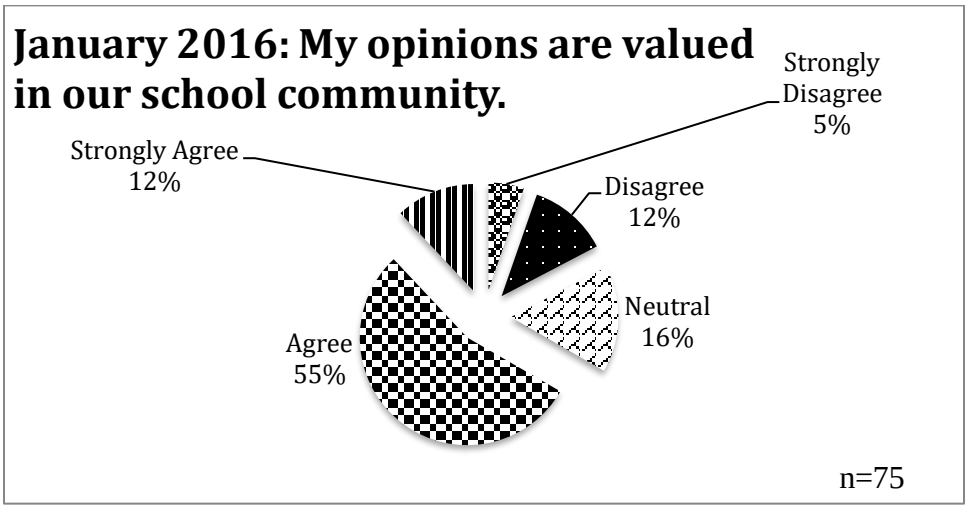

Figure 25. January 2016 teacher survey response 8.

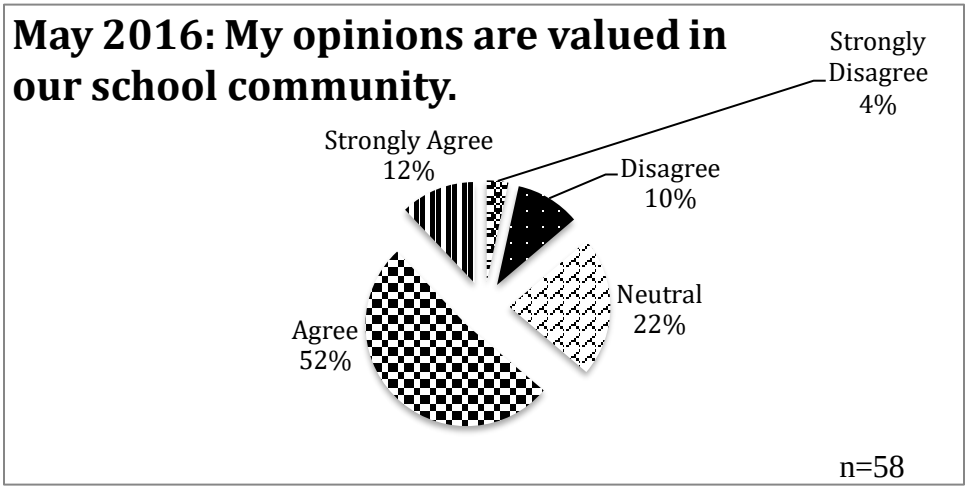

Figure 26. May 2016 teacher survey response 8.

For the January survey question 14, 75 responded. Four strongly disagreed; nine disagreed; 12 were neutral; 41 agreed; nine strongly agreed. For the May survey, 58 responded. Two strongly disagreed; six disagreed; 13 were neutral; 30 agreed; seven strongly agreed. Initially, teacher responses indicated that 50, or 66.7%, felt that a shift,

as indicated by a response of agree or strongly agree, had occurred; the second survey showed a difference in that 37, or 63.8%, indicated that a shift, as indicated by a response of agree or strongly agree, occurred. There was a decrease of 2.9% in positive responses between the January and May surveys, and there was a decrease of 3.5% in negative responses between the January and May surveys. Additionally, there was an increase of 6.4% in neutral responses between the January and May surveys. The pre and post survey responses showed a positive decrease but also a negative decrease, thus indicating that the implementation of a new master schedule did not contribute to the creation of a cultural shift as measured by teacher surveys.

The researcher then asked teachers an open-ended question regarding their ideas about collaboration time. She coded responses into four main categories, and parts of each respondent's answer could be coded under more than one heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: Timing (20 statements—30.8% of respondents), Positive (23 statements—35.4% of respondents), Negative (eight statements—12.3% of respondents), and Specific Idea (19 statements—29.2% of respondents). In May, the codes and quantity of responses under those codes were as follows: Timing (14 statements—28.6% of respondents), Positive (14 statements—28.6% of respondents), Negative (11 statements—22.4% of respondents), and Specific Idea (12 statements—24.5% of respondents). The following tables showed samples of responses that teachers provided regarding their ideas about collaboration time..

Table 16

January 2016: What are your ideas about collaboration time?

Timing Some responses under this category were as follows: "Collaboration time should be done before or after school or create a late-start day once a month; having to collaborate with teachers during [study hall] makes it very difficult to see all my students," "while I like the ability to collaborate during the school day, it is hard to keep track of all the varying times for each department," "still need to change the culture, would like to implement late starts so that students/teachers are not 'tempted' to see collaboration time for something other than collaboration," and "great for creating common tests."
Positive Some responses under this category were as follows: "It's been very helpful as we move into a new schedule to have time to put our heads together to make the transition as smooth and successful as possible; it's also provided time to work collectively to create pre- and post-common assessments to show student growth," "I love having scheduled to time to meet with my peers who teach the same course—really productive to reflect and/or discuss new ideas," "long overdue to schedule time to meet on a regular scheduled time," and "It is awesome! When teachers are given the time to plan engaging lessons, the students reap the benefits."
Negative Some responses under this category were as follows: "Collaboration time should not be mandated and should be driven by need; I have witnessed many departments not participating in collaboration as well with no repercussions," "my only concern is that with [study hall] only every third day, that pulling teachers out during this time is tough on students," "stop forcing teachers to do this…teachers want the time outside of class to be with their students," and "no one takes it seriously."
Specific Idea Some responses under this category were as follows: "If we are going to collaborate, we should be working with colleagues from other departments," "I would like to have more specific things to do during that particular time," "I'd like more admin. support during these times, sitting in, offering suggestions, listening," and "I would like to see it at times other than when students are here, but still built into the day."

For the January survey question, 65 responded. For the May survey, 49 responded. There were common themes throughout both surveys. The most frequently identified category was positive; teachers indicated that they valued the time, that it afforded them with opportunities to meet and reflect on their lessons, and that it enabled them to develop common lessons and assessments with their colleagues.

Table 17

May 2016: What are your ideas about collaboration time?

Timing Some responses under this category were as follows: "It is extremely important for teachers to have that time as often as possible without interfering with time to meet with students," "time before or after school," "I love that we have it, but I think for collaboration to really be beneficial, it needs to be done weekly," and "it's really nice to have time, during the day, to check in with the other teachers in my content area—it has allowed for changes to be made during the school day, in real time."
Positive Some responses under this category were as follows: "It's highly valuable; it shows teachers that the admin. truly values our time and respects our professionalism," "it worked out great with our department; it gave me time to collaborate with our new teacher, and touch base more frequently; we were able to sit down and discuss more," "it allows teachers to share activities and resources that have worked in our classroom and gives us time to discuss the development of lessons and units," and "it is much needed if we are to teach the same courses and give common assessments."
Negative Some responses under this category were as follows: "It is an artificial waste of time; I collaborate with my colleagues when I need to," "collaboration time during [study hall] is not working," "did not use," and "please, get rid of it so that we may focus on assisting students."
Specific Idea Some responses under this category were as follows: "interdisciplinary collaboration," "need a strong vision for each team," "find a place for kids to go during collaboration," and "collaboration should be after school."

Some suggested scheduling collaboration time at a time different from study hall by requiring it before or after school or by having late starts built into the calendar; some also indicated that they would like for it to occur weekly. The teachers who responded negatively stated that collaboration time should not be mandated and was not productive; however, this was the least frequently identified category. Lastly, some offered specific ideas to improve collaboration such as creating inter-departmental collaboration and having administrators participate in this collaboration time.

The researcher asked teachers an open-ended question regarding their description of the school's culture. She then coded responses into four main categories, and parts of each respondent's answer could be coded under more than one heading though there were no duplicate responses in more than one category. In January, the codes and quantity of responses under those codes were as follows: High-achieving (12 statements—18.8% of respondents), Positive (25 statements—39.1% of respondents), Negative (13 statements—20.3% of respondents), and Professional (seven statements—10.9% of respondents).

Table 18

January 2016: How would you describe our school's culture?

High-achieving Some responses under this category were as follows: "I think we are a high performing school; I think to some extent we need more structure which has been increasing," "one that promotes academic success," "our school values academic achievement and college prep courses," and "mostly a high achieving college prep environment."
Positive Some responses under this category were as follows: "Positive and open to change; I think there's a lot of respect for the admin. team and their efforts to include people in this decision," "better than in the past," "I have been here 4 years and each year is getting better; students are being held to higher standards and more rules are in place," and "I believe our school's culture is positive and supportive of the students, faculty, and support staff."
Negative Some responses under this category were as follows: "Tired!," "stressful, and it may be on the rise," "I think we are divided," and "weak on school spirit, unduly weighted towards imaginary ideals of success, continually trying to meet the needs of students who may not know how to appreciate the effort put towards their improvement."
Professional Some responses under this category were as follows: "I feel that most teachers really do respect one another in the classroom/professionally," "we are mostly a group of people who care about the education of our students and deeply committed to the improvement of our school," "very professional, driven, and accomplished teachers work in our school," and "teachers who are committed to providing the best instruction for students."

In May, the codes and quantity of responses under those codes were as follows: High-achieving (10 statements—20.8% of respondents), Positive (18 statements—37.5% of respondents), Negative (11 statements—22.9% of respondents), and Professional (nine statements—18.8% of respondents). The following tables showed samples of responses that teachers provided regarding their description of the school's culture.

Table 19

May 2016: How would you describe our school's culture?

High-achieving Some responses under this category were as follows: "Academically competitive," "achievement is important," "we are incredibly AP focused, college focused," and "academically focused."
Positive Some responses under this category were as follows: "I think the culture is changing for the better; we are becoming a more engaged and collaborative community," "more positive and community-like than in previous years," "our school has a supportive, welcoming environment," and "overall, very positive."
Negative Some responses under this category were as follows: "I feel that communication is still spotty, and I also have the sense that not everyone is pulling in the same direction at the same time for this reason," "a little fragmented when it comes to communication issues," "not always what it appears," and "we still have many staff that are not willing to change."
Professional Some responses under this category were as follows: "Open, respectful;" "our culture nurtures and instills values to help our students succeed academically and collaborate with others," "professional, cordial;" and "congenial, open."

For the January survey question, 64 responded. For the May survey, 48 responded. There were common themes throughout both surveys. The most frequently identified category was positive; teachers indicated that it was an environment that was continuing to get better, that people were supportive, and that the school was supportive and welcoming. Others spoke to the high-achieving environment, citing the focus on

academic achievement. The teachers who responded negatively stated that communication needed to be improved as well as school spirit; however, this was the least frequently identified category. Lastly, some felt that the culture was a professional, respectful environment.

In looking at the Likert scale responses for teachers related to Research Question 3, three areas—collaboration time was beneficial, teachers were able to be honest, and teachers felt involved—tended to show improvement with a range of 4.4-8.8% gains, while other areas—there was a difference between 2014-2015 study hall and 2015-2016 study hall, students were more productive in study hall the second year versus the first year, and teachers' opinions were valued—did not show improvement with a range of 1.8-6.4% setbacks. The survey questions regarding the differences between the study halls the two years that were studied showed the largest areas of setbacks with a range of 1.8-6.5% decrease in positive responses and a range of 3.7-6.4% increase in negative responses. The other question that showed a decrease in positive responses (2.9%) and an increase in negative responses (3.5%) related to the belief that teachers felt their opinions were valued in the school community. The survey questions regarding the opinion that collaboration time was beneficial, that teachers could be honest about items related to the schedule change, and that teachers felt involved in the schedule change process showed the largest areas of gains with a range of 4.4-8.8% increase in positive responses and a range of 0-4.1% decrease in negative responses.

In looking at the various open-ended responses for teachers related to Research Question 3, the themes were focused on positivity and on opportunities for growth; specifically, teachers felt positively about collaboration and school culture. Teachers

recognized the value of collaboration time and wanted to see it continue even if in a different time of the school day. Teachers also largely felt that the school had a positive, high-achieving, and professional culture though they also provided some feedback on how to continue to grow an even more positive culture. In addition, some of the areas showed a decrease in positive responses but still had well over the majority of teachers responding positively. Overall, the open-ended responses yielded positive and constructive feedback and did not have a largely negative tone. In analyzing the Likert scale statements from both the students and teachers as well as the open-ended responses from the teachers, the feedback was overall positive, thus indicating that the implementation of a new master schedule contributed to the creation of a cultural shift as measured by student and teacher surveys.

Null Hypothesis 1

The implementation of a new master schedule will not support increased student accountability as measured by a decrease in the average number of tardies.

Table 20

Summary Data for Tardies for Sample for Semester 1

S1 2014-2015 Mean of Number of Opportunities for Students to be Tardy	S1 2015-2016 Mean of Number of Opportunities for Students to be Tardy	S1 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
.01013	.01251	.00280	-.00204 to .00681

p-value=.2910

Excel was used to generate a stratified random sample of 50 students from each grade level who had been in the school for the 2014-2015 and 2015-2016 school years. Three different random groups of 50 from each grade level were created. Therefore, in reviewing tardy data, 50 students who were in ninth grade in 2014-2015 and in 10th

grade in 2015-2016, 50 students who were in 10th grade in 2014-2015 and in 11th grade in 2015-2016, and 50 students who were in 11th grade in 2014-2015 and in 12th grade in 2015-2016 were utilized in the sample.

Table 21

Summary Data for Tardies for Sample for Semester 2

S2 2014-2015 Mean of Number of Opportunities for Students to be Tardy	S2 2015-2016 Mean of Number of Opportunities for Students to be Tardy	S2 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
.0109	.0106	.00033	-.00417 to .00483

p-value=.8851

A *t*-test determined whether the new master schedule, as a treatment placed on the population, impacted student accountability as demonstrated by a decrease in tardies for each semester of the 2014-2015 school year as compared to each semester of the 2015-2016 school year. The researcher used this test to compare the means between both semester 1 of the 2014-2015 and 2015-2016 school years as well as to compare the means between semester 2 of the 2014-2015 and 2015-2016 school years.

For semester 1 of 2014-2015 school year, the sample showed that the mean number of tardies per student in the sample was 3.61 tardies. For semester 1 of the 2015-2016 school year, the sample showed that the mean number of tardies per student in the sample was 5.58 tardies. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 1 data was .2910, which was not statistically significant, because the value was higher than the significance level. Since the semester 1 *p*-value of 0.2910 was greater than the α-value of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference in the average number of tardies, when comparing semester 1 of 2015-2016 to semester 1 of 2014-2015; hence no

significant increase. Though not statistically significant, the average number of tardies observably increased. Examination of student accountability searched for evidence of decrease in the average number of tardies.

For semester 2 of the 2014-2015 school year, the mean number of tardies per student in the sample was 3.88 tardies. For semester 2 of the 2015-2016 school year, the mean number of tardies per student in the sample was 4.73 tardies. The investigator utilized a *p*-value of .05 to determine statistical significance. The *p*-value for semester 2 data was .8851, which was not statistically significant. Since the semester 2 *p*-value of 0.8851 was greater than the α-value of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference in the average number of tardies, when comparing semester 2 of 2015-2016 to semester 2 of 2014-2015; hence no significant increase. Though not statistically significant, the average number of tardies observably increased. Examination of student accountability searched for evidence of decrease in the average number of tardies.

The semester 1 *p*-value of .2910 was greater than the α-level of .05, and the semester 2 *p*-value of .8851 was greater than the α-level of .05. Therefore, the master schedule change did not have an impact on increasing student accountability in the area of tardies. As a result, the null hypothesis was not rejected. Therefore, the data from this study did not support increased student accountability.

Null Hypothesis 2

The implementation of a new master schedule will not support increased student accountability as measured by a decrease in the average number of days absent.

Table 22

Summary Data for Absences for Sample for Semester 1

S1 2014-2015 Mean of Number of Student Absences	S1 2015-2016 Mean of Number of Student Absences	S1 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
2.62	3.63	1.01090	.08310 to 1.9386

p-value=.0328

Table 23

Summary Data for Absences for Sample for Semester 2

S2 2014-2015 Mean of Number of Student Absences	S2 2015-2016 Mean of Number of Student Absences	S2 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
4.81	6.36	1.5428	.1729 to 2.9127

p-value=.0274

Excel was used to generate a stratified random sample of 50 students from each grade level who had been in the school for the 2014-2015 and 2015-2016 school years. Three different random groups of 50 from each grade level were created. Therefore, in reviewing absences data, 50 students who were in ninth grade in 2014-2015 and in 10th grade in 2015-2016, 50 students who were in 10th grade in 2014-2015 and in 11th grade in 2015-2016, and 50 students who were in 11th grade in 2014-2015 and in 12th grade in 2015-2016 were utilized in the sample.

A *t*-test determined whether the new master schedule, as a treatment placed on the population, impacted student accountability as demonstrated by a decrease in absences for each semester of the 2014-2015 school year as compared to each semester of the 2015-2016 school year. The researcher used this test to compare the means between both

semester 1 of the 2014-2015 and 2015-2016 school years as well as to compare the means between semester 2 of the 2014-2015 and 2015-2016 school years.

For semester 1 of the 2014-2015 school year, the sample showed that the mean number of absences per student in the sample was 2.62. For semester 1 of the 2015-2016 school year, the sample showed that the mean number of absences per student in the sample was 3.63. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 1 data was .0328, which was statistically significant, because the value was lower than the significance level. However, this showed an increase in number of absences rather than a decrease. Since the semester 1 *p*-value of 0.0328 was less than the α-value of 0.05, the null hypothesis was rejected. Therefore, there was a significant difference in the average number of absences, when comparing semester 1 of 2015-2016 to semester 1 of 2014-2015. In terms of both statistical and observable evidence, the number of absences increased. Examination of student accountability searched for evidence of decrease in the average number of absences.

For semester 2 of the 2014-2015 school year, the sample showed that the mean number of absences per student in the sample was 4.81. For semester 2 of the 2015-2016 school year, the sample showed that the mean number of absences per student in the sample was 6.36. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 2 data was .0274, which was statistically significant. However, this showed an increase in number of absences rather than a decrease. Since the semester 2 *p*-value of 0.0274 was less than the α-value of 0.05, the null hypothesis was rejected. Therefore, there was a significant difference in the

average number of absences, when comparing semester 2 of 2015-2016 to semester 2 of 2014-2015. In terms of both statistical and observable evidence, the number of absences increased. Examination of student accountability searched for evidence of decrease in the average number of absences.

The semester 1 *p*-value of was less than the α-level of .05, and the semester 2 *p*-value of .0274 was less than the α-level of .05. Though these differences were statistically significant, the difference resulted in an increase in the average number of absences for both semesters. Since student accountability would be evidenced by a decrease in average number of absences, the null hypothesis was not rejected. Student accountability, in this study, did not result in a decrease in absences. Therefore, the new master schedule did not support increased student accountability.

Null Hypothesis 3

The implementation of a new master schedule will not support student improvement as measured by a decrease in the average number of D's and F's.

Table 24

Summary Data for Grades of D's and F's for Sample for Semester 1

S1 2014-2015 Mean of Number of D's and/or F's	S1 2015-2016 Mean of Number of D's and/or F's	S1 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
.44	.28	.16	-.04-.36

p-value=.123

Excel was used to generate a stratified random sample of 50 students from each grade level who had been in the school for the 2014-2015 and 2015-2016 school years. Three different random groups of 50 from each grade level were created. Therefore, in reviewing grades of D's and/or F's data, 50 students who were in ninth grade in 2014-

2015 and in 10th grade in 2015-2016, 50 students who were in 10th grade in 2014-2015 and in 11nth grade in 2015-2016, and 50 students who were in 11th grade in 2014-2015 and in 12th grade in 2015-2016 were utilized in the sample.

Table 25

Summary Data for Grades of D's and F's for Sample for Semester 2

S2 2014-2015 Mean of Number of D's and/or F's	S2 2015-2016 Mean of Number of D's and/or F's	S2 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
.42	.26	.16	-.04-.36

p-value=.123

A *t*-test determined whether or not the new master schedule, as a treatment placed on the population, impacted student accountability as demonstrated by a decrease in D's and/or F's for each semester of the 2014-2015 school year as compared to each semester of the 2015-2016 school year. The researcher used this test to compare the means between both semester 1 of the 2014-2015 and 2015-2016 school years as well as to compare the means between semester 2 of the 2014-2015 and 2015-2016 school years.

For semester 1 of the 2014-2015 school year, the sample showed that the mean number of D's and/or F's per student in the sample was .44. For semester 1 of the 2015-2016 school year, the sample showed that the mean number of D's and/or F's per student in the sample was .28. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 1 data was .123, which was not statistically significant, because the value was higher than the significance level. Since the semester 1 *p*-value of 0.123 was greater than the α-value of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference in the average number of D's and F's when comparing semester 1 of 2015-2016 to semester 1 of 2014-2015; hence

no significant increase. Though not statistically significant, the average number of D's and F's observably decreased. Examination of student accountability searched for evidence of decrease in the average number of D's and F's.

For semester 2 of the 2014-2015 school year, the sample showed that the mean number of D's and/or F's per student in the sample was .42. For semester 2 of the 2015-2016 school year, the sample showed that the mean number of absences per student in the sample was .26. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 2 data was .123, which was not statistically significant. Since the semester 2 *p*-value of 0.123 was greater than the α-value of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference in the average number of D's and F's when comparing semester 2 of 2015-2016 to semester 2 of 2014-2015; hence no significant increase. Though not statistically significant, the average number of D's and F's observably decreased. Examination of student accountability searched for evidence of decrease in the average number of D's and F's.

The semester 1 *p*-value of .123 was greater than the α-level of .05, and the semester 2 *p*-value of .123 was greater than the α-level of .05. Therefore, the master schedule change did not have an impact on increasing student accountability in the area of grades of D's and/or F's. As a result, the null hypothesis was not rejected. Therefore, the data from this study did not support increased student accountability.

Null Hypothesis 4

The implementation of a new master schedule will not support student improvement as measured by a decrease in the average number of behavior events.

Table 26

Summary Data for Discipline Events for Sample for Semester 1

S1 2014-2015 Mean of Number of Behavior Events	S1 2015-2016 Mean of Number of Behavior Events	S1 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
.153	.093	.06	-.08 to .2

p-value=.4035

Table 27

Summary Data for Discipline Events for Sample for Semester 2

S2 2014-2015 Mean of Behavior Events	S2 2015-2016 Mean of Behavior Events	S2 2014-2015 and 2015-2016 Difference of Means	95% Confidence Interval
.180	.114	.07	-.11 to .24

p-value=.4597

Excel was used to generate a stratified random sample of 50 students from each grade level who had been in the school for the 2014-2015 and 2015-2016 school years. Three different random groups of 50 from each grade level were created. Therefore, in reviewing behavior event data, 50 students who were in ninth grade in 2014-2015 and in 10th grade in 2015-2016, 50 students who were in 10th grade in 2014-2015 and in 11th grade in 2015-2016, and 50 students who were in 11th grade in 2014-2015 and in 12th grade in 2015-2016 were utilized in the sample.

A *t*-test determined whether the new master schedule, as a treatment placed on the population, impacted student accountability as demonstrated by a decrease in behavior events for each semester of the 2014-2015 school year as compared to each semester of the 2015-2016 school year. This test was used to compare the means between both semester 1 of the 2014-2015 and 2015-2016 school years as well as to compare the means between semester 2 of the 2014-2015 and 2015-2016 school years.

For semester 1 of the 2014-2015 school year, the sample showed that the mean number of behavior events per student in the sample was .153. For semester 1 of the 2015-2016 school year, the sample showed that the mean number of behavior events per student in the sample was .093. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 1 data was .4035, which was not statistically significant, because the value was higher than the significance level. Since the semester 1 *p*-value of 0.4035 was greater than the α-value of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference in the average number of behavior events when comparing semester 1 of 2015-2016 to semester 1 of 2014-2015; hence no significant increase. Though not statistically significant, the average number of behavior events observably decreased. Examination of student accountability searched for evidence of decrease in the average number of behavior events.

For semester 2 of the 2014-2015 school year, the sample showed that the mean number of behavior events per student in the sample was .180. For semester 2 of the 2015-2016 school year, the sample showed that the mean number of behavior events per student in the sample was .114. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for semester 2 data was .4597, which was not statistically significant. Since the semester 2 *p*-value of 0.4597 was greater than the α-value of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference in the average number of behavior events when comparing semester 2 of 2015-2016 to semester 2 of 2014-2015; hence no significant increase. Though not statistically significant, the average number of behavior events observably decreased. Examination

of student accountability searched for evidence of decrease in the average number of behavior events.

The semester 1 *p*-value of was greater than the α-level of .05, and the semester 2 p-value was greater than the α-level of .05. Therefore, the master schedule change did not have an impact on increasing student accountability in the area of discipline. As a result, the null hypothesis was not rejected. Therefore, the data from this study did not support increased student accountability.

Null Hypothesis 5

The implementation of a new master schedule will not support student improvement as measured by an increase in SRI scores, vocabulary levels, comprehension levels, and reading rates from a targeted reading intervention.

The researcher utilized a simple random sample of seven students from the Reading Plus intervention group by selecting every third student; therefore, students 3, 6, 9, 12, 15, 18, and 21 were utilized. The investigator performed paired *t*-tests to determine whether or not students' SRI scores, vocabulary levels, comprehension levels, and reading rates increased based on pre-intervention scores and post-intervention scores.

Table 28

Summary Data for SRI Scores for Sample

Mean SRI Scores Prior to Reading Plus Intervention	Mean SRI Scores After Reading Plus Intervention	Pre-Intervention and Post-Intervention Difference of Means	95% Confidence Interval
968.14	1137.29	169.14	116.76 to 221.52

p-value=.0002

Prior to the intervention, the sample showed that the mean SRI score per student in the sample was 968.14 (eighth grade reading level) (Sacket, 2015). After the

intervention, the sample showed that the mean SRI per student in the sample was 1137.29 (11th grade reading level) (Sacket, 2015). The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for this data was .0002, which was statistically significant, because the value was lower than the significance level. Since the mean SRI score *p*-value of 0.0002 was not greater than the α-value of 0.05, the null hypothesis was rejected. Therefore, there was a significant difference in the mean SRI scores following the intervention of Reading Plus. The mean SRI scores increased significantly following the intervention; hence, the data from this study supports significant student improvement, as measured by SRI scores.

Table 29

Summary Data for Vocabulary Levels for Sample

Mean Vocabulary Levels Prior to Reading Plus Intervention	Mean Vocabulary Levels After Reading Plus Intervention	Pre-Intervention and Post-Intervention Difference of Means	95% Confidence Interval
7.6	8.8	1.243	.276 to 2.210

p-value=.0199

Prior to the intervention, the sample showed that the mean vocabulary level per student in the sample was 7.6. After the intervention, the sample showed that the mean vocabulary level per student in the sample was 8.8. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for this data was .0199, which was statistically significant, because the value was lower than the significance level. Since the mean vocabulary level *p*-value of 0.0199 was not greater than the α-value of 0.05, the null hypothesis was rejected. Therefore, there was a significant difference in the mean vocabulary levels, following the intervention of Reading Plus. The mean vocabulary levels increased significantly following the

intervention; hence, the data from this study supports significant student improvement, as measured by mean vocabulary levels.

Table 30

Summary Data for Comprehension Levels for Sample

Mean Comprehension Levels Prior to Reading Plus Intervention	Mean Comprehension Levels After Reading Plus Intervention	Pre-Intervention and Post-Intervention Difference of Means	95% Confidence Interval
8.54	9.34	.1594	-.419 to 2.019

p-value=.1594

Prior to the intervention, the sample showed that the mean comprehension level per student in the sample was 8.54. After the intervention, the sample showed that the mean comprehension level per student in the sample was 9.34. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for this data was .1594, which was not statistically significant, because the value was higher than the significance level. Since the mean comprehension level *p*-value of 0.1594 was greater than the α-value of 0.05, the null hypothesis was not rejected. Though there was an observable difference in the mean comprehension levels, there was not a statistically significant difference following the intervention of Reading Plus. The mean comprehension levels did not increase significantly following the intervention; hence, the data from this study does not significant student improvement, as measured by mean comprehension levels. Examination of student improvement searched for evidence of increase in the average comprehension levels.

Table 31

Summary Data for Reading Rates for Sample

Mean Reading Rates Prior to Reading Plus Intervention	Mean Reading Rates After Reading Plus Intervention	Pre-Intervention and Post-Intervention Difference of Means	95% Confidence Interval
145.57	152.86	7.29	-35.85 to 50.42

p-value=.6938

Prior to the intervention, the sample showed that the mean reading rate per student in the sample was 145.57. After the intervention, the sample showed that the mean reading rate per student in the sample was 152.86. The investigator utilized a significance level of .05 to determine statistical significance. The *p*-value for this data was .6938, which was not statistically significant, because the value was higher than the significance level. Since the mean reading rate *p*-value of 0.6938 was greater than the α-value of 0.05, the null hypothesis was not rejected. Though there was an observable difference in the mean reading rate, there was not a statistically significant difference following the intervention of Reading Plus. The mean reading rate did not increase significantly following the intervention; hence, the data from this study does not significant student improvement, as measured by reading rate. Examination of student improvement searched for evidence of increase in the average reading rates.

The increase in SRI scores and vocabulary levels were statistically significant. An increase in comprehension levels and reading rates occurred but were not statistically significant. However, the master schedule change did support student improvement as a result of a targeted reading intervention based on increases in all identified areas, two of which were statistically significant. As a result, the alternate hypothesis was not rejected.

Summary

The researcher collected quantitative tardy, attendance, grade, behavior, and Reading Plus data as well as qualitative survey data to determine the success of Midwest Suburban's High School changes. She reviewed tardy, attendance, grade, and behavior data from the 2014-2015 and the 2015-2016 school years. She ran *T*-tests to determine statistical significance as evidenced by a reduction in tardies, absences, grades of D's and F's, and discipline events from the 2014-2015 school year to the 2015-2016 school year. She ran unpaired *t*-tests to determine statistical significance as evidenced by an increase in SRI scores, comprehension levels, vocabulary levels, and reading rates from students entering the intervention and exiting the intervention. She had someone administer Likert scale survey questions to students and to teachers and open-ended survey questions to teachers to determine feelings about the schedule change and the school's culture.

To summarize, survey feedback yielded overall positive results regarding the master schedule change and the school's culture. All areas measured in the student surveys showed gains from the January survey to the May survey. Most areas measured in the teacher surveys showed gains from the January survey to the May survey. While many areas in the hypotheses showed observable increases, they were not statistically significant, with the exception of the intervention data.

The goal of the researcher was to investigate the impact of a master schedule change, an imbedded reading intervention, and a common time for teacher collaboration during the school day in a high-achieving high school. The research presented showed a variety of results. Overall, teachers and students provided positive feedback about the master schedule change and the school's culture. However, there were some areas, such

as teacher perceptions that the schedule change benefitted their teaching that showed setbacks between the two surveys that were administered. In looking at the quantitative results, the tardy and attendance data did have observable increases, but they were not statistically significant. While the goal was to have a decrease in the number of tardies and absences, the increase was not significant. Grades of D's and F's and discipline events observably decreased, but the decreases were not statistically significant. Reading Plus data showed statistically significant increases in students' SRI scores and vocabulary levels. While comprehension levels and reading rates did not show statistically significant increases, there were still observable increases.

Overall, there were positive responses to the surveys, but there were not statistically significant decreases in tardy, attendance, grade, and behavior data. Reading Plus data showed statistically significant increases in two areas and observable increases in two areas. The timeframe in which the study was conducted did not afford the researcher with the opportunity to view the change over an extended period of time. As with any substantive change, it must be measured over years in order to truly determine its impact. However, this study provided the groundwork for the school to continue to measure the impact of these changes.

Chapter Five: Discussion and Reflection

Introduction

Chapter Four focused on the data that was collected; Chapter Five focused on the conclusions reached as a result of conducting this study. The study was summarized; triangulation of results was explained. In addition, limitations were reviewed; conclusions were clarified, and recommendations for future research were outlined.

Research Questions and Hypotheses

The following research questions and hypotheses were investigated:

RQ1. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by student surveys?

RQ2. How, if at all, does the implementation of a new master schedule result in positive feedback as measured by teacher surveys?

RQ3. How, if at all, will the implementation of a new master schedule contribute to the creation of a cultural shift as measured by student surveys and teacher surveys?

The hypotheses for this mixed-methods study were as follows:

H1. The implementation of a new master schedule will support increased student accountability as measured by a decrease in the average number of tardies.

H2. The implementation of a new master schedule will support increased student accountability as measured by a decrease in the average number of days absent.

H3. The implementation of a new master schedule will support student improvement as measured by a decrease in the average number of D's and F's.

H4. The implementation of a new master schedule will support student improvement as measured by a decrease in the average number of behavior events.

H5. The implementation of a new master schedule will support student improvement as measured by an increase in SRI scores, vocabulary levels, comprehension levels, and reading rates from a targeted reading intervention.

Summary of Study

Midwest Suburban High School was a high-achieving school that sought to make changes in order to more effectively support students who were not having success. While this school had dedicated educators, supportive parents, and quality students, it still recognized that it could do better to achieve its mission of supporting all learners. Therefore, two years prior to this study were spent forming committees, conducting research, seeking feedback, making adjustments, and allocating resources to make some changes. In the 2015-2016 school year, the school implemented a new master schedule, from an A/B block to a modified block. In addition, a reading intervention and teacher collaboration were imbedded into the school day. The goal of this study was to assess the effectiveness of the implementation of a new master schedule, interventions, and imbedded teacher collaboration to determine if a cultural shift occurred in the building based on various data sources—student surveys, teacher surveys, tardy data, absence data, grade data, discipline data, and Reading Plus data.

Triangulation of Results

A mixed-methods approach was used to collect data. Data triangulation and methodological triangulation occurred in this study so that connections could be made between the qualitative data that was collected—student surveys and teacher surveys—and the quantitative data that was collected—tardy data, absence data, grade data,

discipline data, and Reading Plus data. This also afforded the researcher with the opportunity to gather vast amounts of data in a relatively short period.

Limitations

After completing the study, it was evident that there were some limitations. The first major limitation was time. Gathering data for years prior to the change as well as years after the change would have given more insight into the culture of the building pre-change and post-change. Next, anonymous surveys did give some information, but it would have been useful to follow up with people individually by conducting focus groups and interviews. There would have been more opportunities for teachers to clarify their open-ended responses and to discuss solutions to issues collectively. In addition, offering students more of an open forum to provide feedback and to be able to ask them why they felt a particular way would have enhanced this study. Also, it was difficult for the researcher to discern attitudes and feelings about the effectiveness of the change in the master schedule and the effectiveness of imbedding a reading intervention and teacher collaboration time into the school day as change was difficult for many. The researcher served as an administrator in the building, which was a limiting factor since it was impossible to remove any potential biases that might have existed. Next, the researcher only utilized one school in the study. Lastly, various components changed within the school in one year—the master schedule format, the construction of study hall, the introduction of a reading intervention, and the imbedding of teacher collaboration into the school day—which made it challenging to isolate each area to determine what did or did not have an impact on creating a culture shift at Midwest Suburban High School.

Conclusions

Three research questions and five hypotheses were investigated to determine whether or not a master schedule change, imbedded interventions, and imbedded teacher collaboration resulted in a cultural shift at Midwest Suburban High School. There were various factors to consider when determining whether a shift occurred. Qualitative data—student surveys and teacher surveys—and quantitative data—tardy data, absence data, grade data, discipline data, and Reading Plus data—were reviewed in this study.

Research Question 1. Three student survey responses were utilized to investigate Research Question 1: How, if at all, does the implementation of a new master schedule result in positive feedback as measured by student surveys?

The first statement posed to students dealt with whether or not they used their time productively during study hall. Study hall was restructured in the 2015-2016 school year because prior to that year, study hall was unstructured time. Students reported to their study hall at the start and at the end of the period; however, the majority of the 90-minute period afforded students with the opportunity to move about the school with little accountability. Therefore, study hall was restructured into set lab times, set travel time, and a homeroom period. As confirmed by the research, there was no one schedule type that was the most effective (Banicky, 2012; Dexter et al., 2006; Hackman, 2004). It was, however, critical to look at how to best utilize time during the school day (O'Brien, 2006; Walker, 2006), and it was important to investigate students' attitudes about how they used their time in this reconfigured study hall. Responses to the January 2016 survey did not differ significantly from the May 2016 survey in that 66.9% and 67.5% of respondents responded positively to this statement. In addition, 20.1% and 18.1%

responded as neutral to this statement. Based on this feedback, it was determined that students responded positively to this question thus suggesting that the change in the master schedule did result in positive feedback from students.

The second statement required students to reflect on how they felt regarding teacher help with academic work. Responses to the January 2016 survey differed from the May 2016 survey in that, initially, 64.6% of students responded positively in January yet 69% responded positively in May. In addition, 24.7% and 24.1% responded as neutral to this statement. This was interesting as these were considerably different times of the school year in terms of deadlines, stress, and expectations. The increase in the positive response identified that students felt that teachers helped them at a critical time in the semester. This further confirmed the research that the type of schedule was not the essential component for student learning (Baker et al., 2006) but that quality instruction was (Farbman, 2012; Merenbloom & Kalina, 2007; Walker, 2006, 2011; Williamson, 2010). Despite the positive response, the researcher felt that this question was vague which may have led to the large number of neutral responses. If the survey were conducted again, the researcher would have amended the question to read as follows: My teachers help me with academic work when I need it.

The third statement required students to reflect on how they felt regarding teacher help with personal issues. Responses to the January survey differed from the May 2016 survey in that, initially, 18.3% of students responded positively in January yet 24.2% responded positively in May. In addition, 45.8% and 42.4% responded as neutral to this statement. While this response was not overall positive, the researcher believed this could have stemmed from the vagueness of the wording. If the survey were conducted

again, the researcher would have amended the question to read as follows: My teachers help me with personal issues when I need it.

Overall, in reviewing the information utilized to investigate Research Question 1, the data supported a positive response to the question that the change in the master schedule resulted in positive feedback as measured by student surveys.

Research Question 2. Seven teacher survey responses were utilized to investigate Research Question 2: How, if at all, does the implementation of a new master schedule result in positive feedback as measured by teacher surveys?

The first statement presented to teachers was about whether they felt that the change in the master schedule was beneficial for students. Teachers were asked to assess their opinion on this topic as the purpose of the schedule change was to work to serve all students, to bring together very different opinions regarding daily classes versus block classes, and to increase student accountability. This was, as regularly articulated in the research, critical to make clear to all stakeholders (Merenbloom & Kalina, 2007; NASSP, 2011; O'Brien, 2006; Walker, 2006; Williamson, 2010). Responses to the January 2016 survey did not differ significantly from the May 2016 survey in that 40.8% and 38.6% of respondents responded positively to this statement. In addition, 30.3% and 31.6% responded as neutral to this statement. Considering that this was a major change for teachers and that they were year one into this change, it was determined that teachers responded positively to this question thus suggesting that the change in the master schedule resulted in positive feedback from teachers.

The second statement posed to teachers was about whether they felt that the change in the master schedule was beneficial for their teaching. Teachers were asked to

reflect on their instructional practices with this shift, which some embraced while others resisted. What was essential for this change was an opportunity for teachers to not only reflect on their instructional practices but also to ensure that they were using effective techniques and focusing on quality instruction; the school had to provide ongoing support for this (Farbman, 2012; Merenbloom & Kalina, 2007; Walker, 2006, 2011; Williamson, 2010). Responses to the January survey differed from the May survey in that, initially, 25% of teachers responded positively in January yet 31% responded positively in May. In addition, 43.4% and 31% responded as neutral to this statement. Again, this was a considerable shift for a building with a large teaching staff, many of whom were experienced teachers. As research confirmed, the shift was not only considerable, it was met, to a degree, with resistance as this change created a feeling of loss of what was comfortable and familiar (Reeves, 2009). Based on these results, the information from this question was inconclusive to determine whether the change in the master schedule resulted in positive feedback from teachers.

The next two questions were open-ended questions directed at seeking teachers' opinions on what was working with study hall and what was not working. Overwhelmingly, the response to what was working centered on the changes that were made; it was evident that teachers recognized why the changes were made as well. This was confirmed in the research, that the school had to be committed to the plan long-term and had to utilize the mission statement to drive the change (Merenbloom & Kalina, 2007, 2014; Sampson, 2012). The structure of study hall was changed significantly in that three defined periods were put in place with bells to signal when travel could and could not occur, a homeroom with progress monitoring and location monitoring was

incorporated, and intentional interventions were imbedded into this time. Forty-one teachers spoke directly to the structure that was created during this time. In addition, the structure created opportunities for defined activities during this time such as test reviews as well as more accountability for students as they had to identify where they were going, why they were going there, and when they were allowed to travel to other classrooms. Feedback regarding what was not working tied largely to student accountability. While structures were put in place, some teachers felt that the imbedded collaboration displaced students, which made them less accountable for their time. Also, the school did not have an online system to track students' whereabouts, making it difficult to ensure that they were going where they intended to go. Lastly, teachers expressed concern about fellow colleagues not enforcing the limits on travel. With the exception of the collaboration time, which was new for the 2015-2016 school year, all of the issues mentioned had been ongoing issues. Research supported that the administrators needed to continue to lead and to support teachers in these change efforts (Boyd-Dimock & McGree, 1995; Fullan, 2008; Howell, 2007; Kotter, 2015; McKinsey & Company, 2010). Therefore, while there was room for growth regarding how to improve this study hall time, the change in the master schedule resulted in positive teacher feedback in this area.

The next two questions were open-ended responses directed at seeking teachers' opinions regarding what they liked about the master schedule and what they did not like about the master schedule. The majority of responses about what teachers liked about the master schedule was the increased frequency of class meetings. The school's prior schedule afforded teachers with the opportunity to see students approximately 45 times each semester; the schedule implemented in the 2015-2016 school year increased

frequency of class meetings to approximately 59 times each semester, an increase of nearly three weeks. In addition, instructional minutes also increased slightly each semester, by approximately 90 to 120 minutes. Others commented on the notion of change as a positive and how it forced many out of their comfort zones and required teachers to look at what they were teaching and how they were teaching it. When asked what they did not like about the new master schedule, the most frequent response dealt with the three-day rotation of the traditional day-block day A-block day B model. It was difficult for them to transition from a two-week pattern of A/B/A/B/A B/A/B/A/B to a three-week pattern of T/A/B/T/A B/T/A/B/T A/B/T/B/A. In the two-week block cycle, teachers saw all classes five times. This was cited as a concern in the research that fewer class opportunities made it more challenging to make up work after an absence (Baker et al., 2006; Campbell et al., 2009; Muir, 2003). In the three-week modified block cycle, teachers saw all classes ten times, five times in a traditional period and five times in a block period. Since the grading periods for this school occurred every six weeks, in time, this pattern will feel more natural for teachers once they have taught in it for a couple of more years. As much as teachers indicated that they did like the traditional day, many also indicated that they did not like the traditional day as it felt rushed and was exhausting. This concern was mentioned in the research as well, that the traditional day created a fast-paced day (Baker et al., 2006; Williamson, 2010). Again, in time, as teachers and students became accustomed to the new master schedule, this opinion will likely change. Lastly, teachers cited stress as another reason for disliking the master schedule. This went to the issue of change, and change created opportunities but also stress and created concerns such as feeling inadequate (Morley & Eadie, 2001). Once

teachers set their lesson plans and became accustomed to the schedule, the feelings of stress would dissipate. Therefore, while teachers still needed time to acclimate to the new master schedule, the change in the master schedule resulted in positive teacher feedback in this area.

The final survey question directed at this research question asked teachers on what they thought the school should focus as they moved forward. The majority of responses focused on continuing to focus on supporting all students. Teachers expressed a commitment to helping students who were struggling and to helping students to recognize that appropriate course loads yield success. As research confirmed, it was important to have buy-in; from there, it was important to create consistency, provide time and structure, and give ongoing professional development and support (Boyd-Dimock & McGree, 1995; Fullan, 2008; Howell, 2007; Kotter, 2015; Reeves, 2009). Some also wanted to focus on making adjustments in the schedule to better imbed interventions, to create more flexibility for lunch, and to have a stationary traditional day. Lastly, teachers wanted open communication to continue and wanted to be able to voice concerns in a safe manner. The change in the master schedule resulted in positive teacher feedback in this area.

While it was complex to assess how positively teachers felt about the master schedule from anonymous survey questions, it was evident that the majority of respondents provided positive feedback. The surveys were administered at very different points in the school year; in January, which was a relatively low stress time and in May, which was a relatively high stress time. In reviewing the responses, particularly to the open-ended questions, overall themes were positive or constructive. The biggest theme

noted was regarded the reduction of the traditional days. However, many schedules were reviewed before reaching the one that was implemented. Having only one traditional day in a week only increased frequency of class meetings by approximately four days. This would not have met one of the goals of creating a new master schedule, which was to increase the frequency of class meetings significantly. Therefore, this should be addressed with the staff again but that it should not be considered for at least three years as teachers need an opportunity to learn and work with the schedule in year, refine their strategies in year two, and feel confident and competent in year three. In viewing the teachers' responses collectively, the implementation of a new master schedule resulted in positive feedback as measured by teacher surveys.

Research Question 3. Two student survey responses and eight teacher survey responses were utilized to investigate Research Question 3: How, if at all, does the implementation of a new master schedule contribute to the creation of a cultural shift as measured by student surveys and teacher surveys?

The first statement presented to students was about whether or not they liked attending Midwest Suburban High School. Students were asked this question in order to determine their attitude about the school. Responses to the January 2016 survey differed slightly from the May 2016 survey in that 61.2% and 65.1% of respondents responded positively to this statement. In addition, 25.1% and 23.3% responded as neutral to this statement. Considering that this was a major change for students, that they were year one into this change, and that change provoked a feeling of loss (Reeves, 2009), it was determined that students did not have a negative attitude about attending Midwest

Suburban High School. Based on this data, the researcher felt that the implementation of a new master schedule contributed to the creation of a cultural shift.

The second statement asked students to think about the sense of pride they felt in being a member of the Midwest Suburban High School community. Responses to the January 2016 survey differed slightly from the May 2016 survey in that 60.2% and 64.8% of respondents responded positively to this statement. In addition, 29.9% and 27% responded as neutral to this statement. Students' responses to this statement and the previous one were similar. While there were not overwhelmingly negative responses to either statement, the researcher expected the survey to yield more positive results as this school was regularly identified as one of the best in both the state and in the nation. However, students did not feel as committed to the school itself but rather to themselves as individuals; it was important for the students to also feel a sense of ownership regarding their school (Fullan, 2004). In addition, the school offered a large variety of course offerings. Based on these considerations as well as the survey results, the researcher felt that the implementation of a new master schedule contributed to the creation of a cultural shift.

Teachers were first asked to consider the difference between the study hall in 2014-2015 as compared to study hall in 2015-2016. Responses to the January 2016 survey differed slightly from the May 2016 survey in that 78.9% and 72.4% of respondents responded positively to this statement. In addition, 14.5% and 17.2% responded as neutral to this statement. The restructuring of study hall was a significant change, but there were still similarities between the 2014-2015 study hall and the 2015-2016 study hall in that there were not defined requirements as to how students spent their

time and where they went to spend their time. The survey was given mid-year and at the end of the year. As the year progressed, expectations around study hall became more lax as teachers were looser in their expectations, as there was less accountability, and as administrators became less visible as they became busier. As with any change, it was critical for the leaders to sustain the change and to be consistent with both words and actions; therefore, the school leaders needed to improve in this area (Gruenert & Whitaker, 2015; Reeves, 2009). However, based on these results, the information from this question was inconclusive to determine whether the implementation of a new master schedule contributed to the creation of a cultural shift.

The second statement teachers were asked to consider was regarding their opinion about student productivity in 2014-2015 study hall versus 2015-2016 study hall. Responses to the January 2016 survey did not differ significantly from the May 2016 survey in that 58.7% and 56.9% of respondents responded positively to this statement. In addition, 25.3% and 20.7% responded as neutral to this statement. Again, the restructuring of study hall was a significant change, but there were still similarities between the 2014-2015 study hall and the 2015-2016 study hall in that there were not defined requirements as to how students spent their time and where they went to spend their time. Giving teachers a voice in this change was important, which the leadership did; the leadership also needed to extend support by being more present during this time (Lick et al., 2013; Picucci et al., 2002; Reeves, 2006b, 2009). However, based on these results, the information from this question was inconclusive to determine whether the implementation of a new master schedule contributed to the creation of a cultural shift.

The third statement to which teachers responded dealt with the imbedded collaboration time. Research confirmed that imbedded time for teachers to collaborate was critical for student achievement (Margeson et al., 2014; Wong & Nicotera, 2007). Collaboration time was imbedded into study hall time five times each semester. In addition, early release professional development days added two more opportunities for collaboration to occur. This was new for the 2015-2016 school year. While teachers did informally collaborate as needed, and while some did it regularly, many others did not make collaboration a focus. Responses to the January 2016 survey differed from the May 2016 survey in that 47.4% and 55.2% of respondents responded positively to this statement. In addition, 30.3% and 22.4% responded as neutral to this statement. This was a major shift for the school, and the only place collaboration could be imbedded into the schedule was to place it during study hall time, a time valued by both teachers and students. Therefore, the timing of it was not ideal but, at the time, was the only opportunity during the school day where this could occur. This was relevant because there would have been an even more positive response to this question if it were imbedded into the day in the form of a late start or early release. Based on these results, the implementation of a new master schedule contributed to the creation of a cultural shift.

The next statement to which teachers responded dealt with teachers' perceptions about being able to be honest about items related to the schedule change. As research confirmed, in order for a change effort to be successful, teachers had to feel valued, empowered, and informed (Foster-Fishman & Watson, 2012; Fullan, 2008; Kotter, 2015; Reeves, 2009). Responses to the January 2016 survey differed from the May 2016

survey in that 69.7% and 75.9% of respondents responded positively to this statement. In addition, 15.8% and 15.3% responded as neutral to this statement. As a member of the school's building leadership team, it was the researcher's informal insight that also heard many honest conversations about the master schedule. In addition, staff meetings were held throughout the year prior to implementation that resulted in regular, ongoing feedback and adjustments made based on that feedback. Based on these results, the implementation of a new master schedule contributed to the creation of a cultural shift.

Teachers were then asked to respond to a statement regarding how involved they felt in the schedule change process. Having teachers play essential roles in the change process was the key to a successful change (Boyd-Dimock & McGree, 1995; Howell, 2007; Kotter, 2015). Responses to the January 2016 survey differed from the May 2016 survey in that 36% and 44.8% of respondents responded positively to this statement. In addition, 38.2% and 25.9% responded as neutral to this statement. As a member of the school's building leadership team, it was the researcher's informal insight that also heard many honest conversations about the master schedule and the process involved in changing the schedule. In addition, staff meetings were held throughout the year prior to implementation that resulted in regular, ongoing feedback and adjustments made based on that feedback. Some teachers did not want a change while others wanted daily class meetings. Therefore, common ground had to be reached to combine two opposite desires. Based on these results, the information from this question was inconclusive to determine whether the implementation of a new master schedule contributed to the creation of a cultural shift.

The next statement asked teachers about whether their opinions were valued in the school community. This was an important question to investigate as Gruenert and Whitaker (2015) explained that understanding the teacher's current beliefs was essential to recognizing how to shift the culture. Responses to the January 2016 survey differed from the May 2016 survey in that 66.7% and 63.8% of respondents responded positively to this statement. In addition, 16% and 22.4% responded as neutral to this statement. The lower positive response from January to May and the larger neutral response from January to May suggested to the researcher that teachers wanted clarification about some items, specifically regarding the setting of the traditional day as only one day per week. Based on these results, the information from this question was inconclusive to determine whether the implementation of a new master schedule contributed to the creation of a cultural shift.

Teachers were then asked an open-ended response question regarding what ideas they had about collaboration time. Responses to this question were largely positive; however, teachers wanted to have regular late starts or early releases or time outside of the school day to meet. This was something beyond the school's control as the school calendar was set by the district, and implementing something only at the high school level would have created an inequity between the high school and other buildings. In addition, this would have created transportation issues without district-wide implementation. In addition, the school leaders could not mandate collaboration outside of the teachers' contracted day nor should they. In fact, collaboration needed to be ongoing and embedded into the regular practices of the school (Margeson et al., 2014; Wong & Nicotera, 2007). While many teachers would be able to collaborate outside of

the day, others were unable or unwilling. Based on these results, the implementation of a new master schedule contributed to the creation of a cultural shift.

Lastly, teachers were asked to describe the school's culture. Responses to this question were largely positive as well, focusing on the school being a high-achieving and professional environment. Some responses also discussed the fact that the culture was shifting in a more positive direction than in years prior to the implementation of the new schedule. It was important for school leaders to recognize the need to speak through words and actions, to remain committed to student-focused conversations, and to be transparent (Lick et al., 2013; Picucci et al., 2002; Reeves, 2006b, 2009). Responses that were not positive, still, for the most part, provided quality insight as to how the school should adjust—improved communication, less pressure to take AP courses, more willingness to change, and better school spirit. Based on these results, the implementation of a new master schedule contributed to the creation of a cultural shift.

While it was challenging to assess the shift of a culture within a year, it was still important to assess students' and teachers' attitudes about the school. In reviewing the students' responses, it was evident to the researcher that there was not enough information to determine whether a cultural shift had started to occur. It would have been beneficial for the researcher to utilize focus groups to talk to students about how they felt about the school. It would have also been beneficial to know more about the individual students that were responding to determine whether the respondents were truly representative of the school as a whole. In reviewing the responses of the teachers, particularly to the open-ended questions, it was evident to the researcher that attitudes were improving regarding the school's culture. Overall, in viewing the students' and

teachers' responses collectively, the implementation of a new master schedule contributed to the creation of a cultural shift.

Hypothesis 1. The researcher investigated whether or not the implementation of a new master schedule resulted in increased student accountability based on a reduction of tardies. The researcher looked at the student population as a whole during each school year that was studied as well as a stratified random sample of 150 students who attended the school in both the 2014-2015 and 2015-2016 school years. In comparing semester 1 of the 2014-2015 school year to semester 1 of the 2015-2016 school year, a slight decrease in tardies (considering the difference in number of transitions) occurred for the population. However, a reduction for the population of .13 was not significant. An increase in tardies occurred for the sample when reviewing both years' data. In comparing semester 2 of the 2014-2015 school year to semester 2 of the 2015-2016 school year, a slight increase in tardies occurred for the population. A slight decrease in tardies occurred for the sample when reviewing both years' data. For the sample, a *t*-test was used to determine whether the change was statistically significant. It was not. In addition, the school did not have a tardy policy in place. In short, students were not accountable for being tardy, and there was little or no repercussion for being tardy. Some teachers were diligent in marking tardies while others did not see the value in doing so. Also, the restructuring of study hall added opportunities for students to be tardy but no way for teachers to mark them tardy during each study hall period. As supported by Duffy and Scala (2012), school leaders needed to get on board and get teachers on board with a shift in expectations; therefore, the school needed to implement some supports as well as some consequences for chronic tardiness. Another strategy that the school could

incorporate would be the implementation of Positive Behavioral Interventions and Supports (PBIS) to explicitly teach students expectations about being on time to class (Duffy & Scala, 2012; PBIS, 2015). Based on this anecdotal information as well as the statistical review, the hypothesis was rejected.

Hypothesis 2. The researcher investigated whether or not the implementation of a new master schedule resulted in increased student accountability based on a reduction of absences. The researcher looked at the student population as a whole during each school year that was studied as well as a stratified random sample of 150 students who attended the school in both the 2014-2015 and 2015-2016 school years. In comparing semester 1 of the 2014-2015 school year to semester 1 of the 2015-2016 school year, an increase in absences occurred for both the population and the sample. In comparing semester 2 of the 2014-2015 school year to semester 2 of the 2015-2016 school year, an increase in absences occurred for both the population and the sample. For the sample, a *t*-test was used to determine whether the change was statistically significant. The change was statistically significant but resulted in an increase in absences, not a decrease. High school attendance was marked by period. While the data used was per period, if a student missed a traditional day in the new schedule rather than a block day, that would result in seven absences versus four absences, which would explain why the absences seemed to increase in the 2015-2016 school year. Despite this, the school needed to implement some supports as well as some consequences for chronic absenteeism. Utilizing PBIS could be relevant for this area as well (PBIS, 2015). Based on this anecdotal information as well as the statistical review, the hypothesis was rejected.

Hypothesis 3. The researcher investigated whether or not the implementation of a new master schedule resulted in student improvement based on a reduction of grades of D's and F's. The researcher looked at the student population as a whole during each school year that was studied as well as a stratified random sample of 150 students who attended the school in both the 2014-2015 and 2015-2016 school years. In comparing semester 1 of the 2014-2015 school year to semester 1 of the 2015-2016 school year, a decrease in D's and F's occurred for both the population and the sample. In comparing semester 2 of the 2014-2015 school year to semester 2 of the 2015-2016 school year, a decrease in D's and F's occurred for both the population and the sample. For the sample, a *t*-test was used to determine whether the change was statistically significant. The change was not statistically significant. However, the school did not make significant curricular adjustments during this year, only a schedule change, a targeted reading intervention for a small group, and imbedded teacher collaboration. Therefore, while the change was not statistically significant, a decrease in grades of D's and F's occurred which was a step in the right direction. In order to continue to improve in this area, the school should improve universal supports and increase the frequency of interventions (Sampson, 2012). Based on this anecdotal information as well as the statistical review, the hypothesis was rejected.

Hypothesis 4. The researcher investigated whether or not the implementation of a new master schedule resulted in student improvement based on a reduction of discipline events. The researcher looked at the student population as a whole during each school year that was studied as well as a stratified random sample of 150 students who attended the school in both the 2014-2015 and 2015-2016 school years. In comparing semester 1

of the 2014-2015 school year to semester 1 of the 2015-2016 school year, a decrease in behavior events occurred for both the population and the sample. In comparing semester 2 of the 2014-2015 school year to semester 2 of the 2015-2016 school year, a decrease in behavior events occurred for both the population and the sample. For the sample, a *t*-test was used to determine whether the change was statistically significant. The change was not statistically significant. However, the student population saw a considerable decrease in both the number of students who had a behavior event as well as the number of behavior events. Comparing semester 1 from each school year that was studied, the number of students involved in a disciplinary situation decreased by 42%; the number of events decreased by 40.2%. Comparing semester 2 from each school year that was studied, the number of students involved in a disciplinary situation decreased by 22.7%; the number of events decreased by 29.6%. Structuring study hall, decreasing lunch times by five minutes, and implementing an alternative location for students with IEP's to process prior to being sent to the office for discipline were factors that contributed to this decrease. While the statistical data was not significant which, therefore, meant that the hypothesis was rejected, a significant decrease in behavior events did occur. The structuring of study hall time created more accountability for students, and, as evidenced in the research, a change such as this should be purposeful; the reasons for the change should be articulated (Merenbloom & Kalina, 2007; NASSP, 2011; O'Brien, 2006; Walker, 2006; Williamson, 2010). While not validated with statistical evidence, the master schedule change did increase student accountability by reducing the number of disciplinary situations.

Hypothesis 5. The researcher investigated whether or not the implementation of a new master schedule resulted in student improvement based on an increase in SRI scores, vocabulary levels, comprehension levels, and reading rates from a targeted reading intervention.

The researcher looked at all of the students who were in the intervention as well as a simple random sample of seven students from the intervention. For the 22 students who started and completed the Reading Plus program, the average SRI score went from 988 (eighth grade-level equivalent) to 1153 (11th grade-level equivalent). The average vocabulary level went from 8.02 to 9.24 grade-level equivalent. The average comprehension level went from 8.75 to 9.55 grade-level equivalent. The average reading rate went from 160 to 170 words per minute. For the sample, statistically significant improvements occurred for SRI scores and vocabulary levels. Improvements, though not statistically significant, occurred for comprehension levels and reading rates. With this program being a silent reading program that was completed online, there were some options as to how to utilize this program for more learners. In addition, since the readings were grade-level appropriate, adapted based on student performance, focused on academic vocabulary, fluency, and reading comprehension, it could be used in a variety of classes (Reading Plus, 2015). Based on anecdotal feedback from students and teachers as well as information about the program also increasing ACT reading scores, it was the researcher's recommendation that this intervention be expanded to reach more students. That was the plan for the 2016-2017 school year. Based on the population data as well as the sample data, the alternate hypothesis was not rejected.

Recommendations for Future Research

While this study looked at many different areas in order to determine whether a cultural shift occurred at Midwest Suburban High School, the researcher had many recommendations regarding future research. First, student and teacher focus groups should be utilized along with the anonymous surveys to drill down to specific concerns and ways to address those concerns. That would provide more opportunities for true change as that more detailed information could be compared to the more general, far-reaching survey information. Second, specific tardy and attendance supports should be put in place and tracked to see if that would result in increased student accountability. PBIS would be an effective way to articulate student expectations and to teach them to students explicitly (PBIS, 2015). Next, individual students' grades should be tracked throughout their high school experience to assess student improvement. A model to review was the Check & Connect Model from the University of Minnesota which trained mentors to monitor grades, attendance, and behavior and resulted in decreased truancy, tardies, and behavioral referrals (Regents of the University of Minnesota, 2014; Southwest Educational Development Laboratory, 2015). In addition, specific students with multiple behavior events should receive more individualized support in improving their behavior (Duffy & Scala, 2012; PBIS, 2015). Data tracking by individual student would give more insight. Lastly, interventions should be expanded to include students at a variety of grade levels.

Specific to the study, the above suggestions would have provided more information. For those wishing to conduct a similar, future study, it would be important to continue to review information about master schedules in order to identify what might

be needed for a particular school. In addition, gathering data about the school's culture at least two years prior to a change and at least two years following a change would have yielded more detailed results and helped the researcher to determine more accurately if the changes made did have an impact on the school's culture. In addition, the researcher looked at many different variables—study hall, tardies, attendance, grades, behavior, an intervention, student attitudes, and teacher attitudes. Focusing on one or two of these areas would give more detailed contributions to the literature regarding master schedules, interventions, and teacher collaboration which would be a final recommendation (Banicky, 2012; Dexter, Tai, & Sadler, 2006; DuFour, 2015; Ehren, 2015; Elmore, 2004; Fullan, 2006; Hackman, 2004).

Changes Researcher Would Have Made if She Were to Conduct Study Again

Reflecting on this study now that it is complete, there are some things the researcher would have done differently if given the opportunity to complete the study again. First, she would have made more site visits to other schools to delve in to the complexities of their master schedules, the reasons they had the type of schedule they had, and the process they utilized to create their master schedules; while there was research around a variety of scheduling types, having the opportunity to see a variety of them in action would have deepened the researcher's understanding of different schedules (Baker et al., 2006; Campbell et al., 2009; Dexter et al., 2006; O'Brien, 2006). Second, the researcher would have attended more professional development around PLC's as learning in person from some of the experts in this area would have given her a better understanding as to how PLC's should be implemented at her school (DuFour, 2015; Elmore, 2004; Fullan, 2004, 2006). Third, the researcher would have surveyed the

students more in-depth by asking more open-ended responses and would have asked student mentors to lead focus groups to discuss school culture and how to improve the culture. Fifth, the researcher would have conducted surveys with the teachers the year prior to conducting the study as well as the year in which the study was conducted in order to have information about attitudes and feelings in the former schedule format versus attitudes and feelings about the new schedule format. Sixth, the researcher would have been more actively involved with investigating and implementing interventions in the school and would have worked to implement PBIS as a starting point (PBIS, 2015). As always, upon reflection, there are areas for improvement in any study. However, this study did contribute to the literature. In addition, the information provided in this study significantly contributed to the literature as there were not many studies regarding high-achieving schools focusing on supporting struggling learners.

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Appendix A: Student Survey Questions

1. I use my time productively during study hall.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

2. My teachers help me with academic work.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

3. My teachers help me with personal issues.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

4. I like attending this school.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

5. I am proud to be a member of Midwest Suburban High School.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

Appendix B: Teacher Survey Questions

1. There is a difference between 2015 study hall time and 2016 study hall time.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

2. Students use their time more productively in 2016 study hall time than in 2015 study hall time.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

3. The collaboration time built into the day has been beneficial for me as a teacher.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

4. I felt involved in the process of changing the master schedule.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

5. The change in the schedule has benefitted my students.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

6. The change in the schedule has benefitted my teaching.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

7. I can be honest in my opinions about items related to the schedule change.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

8. My opinions are valued in the school community.

   1 strongly disagree 2 disagree 3 neutral 4 agree 5 strongly agree

9. What is working with study hall?
10. What is not working with study hall?
11. What do you like about the new schedule?
12. What do you not like about the new schedule?
13. How do you feel about our school's culture?
14. What are your ideas about collaboration time?
15. What is one thing you would like for us to focus on as we go forward?

Appendix C: Informed Assent for Student Participation in Research Activities

Lindenwood University
School of Education
209 S. Kingshighway
St. Charles, Missouri 63301

Informed Assent for
Student Participation in Research Activities

The Evolution of a High-Achieving School: Working to Create a Cultural Shift through a Schedule Change, Interventions, and Imbedded Collaboration

Principal Investigator: Beth Rapoff

Participant: Student

Dear High School Student:

1. I am doing a research study about our school, under the guidance of Dr. Graham Weir, Professor, Lindenwood University. The purpose of this research is determine whether the changes in the master schedule have improved our school's culture.
2. a) Your participation will involve
   - Completion of online surveys about the school and how you spend your time at school. You will be asked to complete two surveys at different points during the school year. You will not be identified. The survey will be completed confidentially, and your input will be helpful for our school to see what is going well and what needs extra attention.

   Approximately 1-1300 students may be involved in this research. All students will receive a survey two times this year, and it is your choice as to whether or not you want to respond.

   b) It will take you between 5-15 minutes per survey to respond.

3. There is sometimes risk of identification when small sample sizes are used; however, in this study the expected participation is large: 1-1300 students. You will be asked the following characteristics: grade level, gender, race, and length of time in district.

4. You will not receive anything for choosing to take these surveys. However, what you tell us will help us decide what to do at our school, so your input will be valuable.

5. Your participation is voluntary, and you may choose not to participate in this research study at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate.

6. Your responses will be confidential. We will not know how you personally answered the questions.

7. If you have any questions or concerns regarding this study, or if any problems arise, your parent/guardian may call the Investigator, Beth Rapoff, or the Supervising

Faculty, Dr. Graham Weir. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB).

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this assent form for my records. I consent to my participation in the research described above.

I do not consent to my participation in the research described above. Therefore, I am opting out of this activity as indicated by my signature below. I understand that I may also choose to opt out by not completing the surveys that are given to me. There will be no tracking of who did and who did not complete surveys.

Student's Signature Date	Student's Printed Name
Signature of Investigator Date	Investigator Printed Name

Appendix D: Informed Consent for Parents for Student Participation in Research Activities

Lindenwood University
School of Education
209 S. Kingshighway
St. Charles, Missouri 63301

Informed Consent for Parents for Student Participation in Research Activities

The Evolution of a High-Achieving School: Working to Create a Cultural Shift through a Schedule Change, Interventions, and Imbedded Collaboration

Principal Investigator: Beth Rapoff
Participant: Student
Dear Parent/Guardian:

1. Your child is invited to participate in a research study conducted by Beth Rapoff, Assistant Principal, under the guidance of Dr. Graham Weir, Professor, Lindenwood University. The purpose of this research is determine whether the changes in the master schedule, in interventions, and in imbedding teacher collaboration time have improved the school's culture.
2. a) Your child's participation will involve
   - Completion of online surveys about the school and how they spend their time at school. Students may be asked to complete up to three surveys over the course of the year. Students will not be identified.

   Approximately 1-1300 students may be involved in this research. All students will be provided with the survey. Responding to the survey is voluntary.
   b) The amount of time involved in your child's participation will be 5-15 minutes per survey.
3. There is sometimes risk of identification when small sample sizes are used; however, in this study the expected participation is large: 1-1300 students. Students will be asked the following characteristics: grade level, gender, race, and length of time in district.
4. There are no direct benefits for your child's participation in this study. However, your child's participation will contribute to the knowledge about the changes the school has made and may help us to drive decision making based on considerable feedback from others.
5. Your child's participation is voluntary and you may choose not to let your child participate in this research study or to withdraw your consent for your child's participation at any time. Your child may choose not to answer any questions that he or she does not want to answer. You and your child will NOT be penalized in any way should you choose not to let your child participate or to withdraw your child.

6. We will do everything we can to protect your child's privacy. As part of this effort, your child's identity will not be revealed in any publication or presentation that may result from this study.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Beth Rapoff, or the Supervising Faculty, Dr. Graham Weir. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB).

   I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my child's participation in the research described above.

   I do not consent to my child's participation in the research described above. Therefore, I am opting out of this activity as indicated by my signature below. I understand that I may also choose to opt out by not allowing my child to complete the surveys that are given to him/her. There will be no tracking of who did and who did not complete surveys.

Parent's/Guardian's Signature Date	Parent's/Guardian's Printed Name
Child's Printed Name	
Signature of Investigator Date	Investigator Printed Name

Appendix E: Informed Consent for Adult Participation in Research Activities

Lindenwood University
School of Education
209 S. Kingshighway
St. Charles, Missouri 63301

Informed Consent for Adult Participation in Research Activities

The Evolution of a High-Achieving School: Working to Create a Cultural Shift through a Schedule Change, Interventions, and Imbedded Collaboration

Principal Investigator: Beth Rapoff
Participant: Teachers

1. You are invited to participate in a research study conducted by Beth Rapoff, Assistant Principal, under the guidance of Dr. Graham Weir, Professor, Lindenwood University. The purpose of this research is determine whether the changes in the master schedule, in interventions, and in imbedding teacher collaboration time have improved the school's culture.
2. a) Your participation will involve
   - Completing surveys. You will be asked to complete a survey at two different points during the school year.

   b) The amount of time involved in your participation will be 10-20 minutes per survey.

   Approximately 1-200 staff will be involved in this research.
3. There is sometimes risk of identification when small sample sizes are used; however, I am surveying the entire faculty.

4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about the changes the school has made and may help us to drive decision-making based on considerable feedback from others. The answers to the surveys will be used to analyze whether or not a cultural shift is occurring due to the changes that have been implemented in the school. We want honest feedback. Your responses will be confidential. The results of this study will not be used for any evaluative purposes, will not result in any monetary advantage or disadvantage, and will not be used for any disciplinary action.

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.
7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Beth Rapoff at 314-971-3156, or with concerns regarding your participation to the Lindenwood Institutional Review Board (IRB).

I do not consent to my participation in the research described above. Therefore, I am opting out of this activity as indicated by my signature below. I understand that I may also choose to opt out by not completing the surveys that are given to me. There will be no tracking of who did and who did not complete surveys.

_____	_____
Participant's Signature Date	Participant's Printed Name
_____	_____
Signature of Principal Investigator Date	Investigator Printed Name

Vitae

Beth Rapoff is currently serving as an assistant principal at a high school in suburban St. Louis, Missouri. She is responsible for student discipline and supports, the master schedule, co-teaching, teacher evaluation, and general administrative responsibilities. She is also a member of the St. Louis Association of Secondary School Principals (SASSP) board. Prior to this position, she served as an assistant principal at a high school in the Metro East.

Prior to an administrative role, Beth served as an English teacher for 12 years, one year at a middle school, and 11 years at a high school. During this time, she accepted several teacher leadership roles, including piloting co-teaching, chairing several committees, and acting as the English department chair.

Beth is currently pursuing her Doctorate of Education degree in School Administration. She currently holds a bachelor's and master's degree from Southern Illinois University at Edwardsville. Furthermore, she is certified in both Illinois and Missouri as both a teacher and as an administrator.