Impact of Collaborative Specialization On 5th Grade Student Achievement in a Title I School: Program Evaluation Proposal

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IMPACT OF COLLABORATIVE SPECIALIZATION ON 5th GRADE STUDENT ACHIEVEMENT IN A TITLE 1 SCHOOL:

PROGRAM EVALUATION PROPOSAL

Nicole Villaverde
Educational Leadership Doctoral Program

Submitted in partial fulfillment
of the requirements of
Doctor of Education
in the Foster G. McGaw Graduate School

National College of Education
National Louis University
December, 2014
This document was created as one part of the three-part dissertation requirement of the National Louis University (NLU) Educational Leadership (EDL) Doctoral Program. The National Louis Educational Leadership EdD is a professional practice degree program (Shulman et al., 2006).

For the dissertation requirement, doctoral candidates are required to plan, research, and implement three major projects, one each year, within their school or district with a focus on professional practice. The three projects are:

- Program Evaluation
- Change Leadership Plan
- Policy Advocacy Document

For the Program Evaluation candidates are required to identify and evaluate a program or practice within their school or district. The “program” can be a current initiative; a grant project; a common practice; or a movement. Focused on utilization, the evaluation can be formative, summative, or developmental (Patton, 2008). The candidate must demonstrate how the evaluation directly relates to student learning.

In the Change Leadership Plan candidates develop a plan that considers organizational possibilities for renewal. The plan for organizational change may be at the building or district level. It must be related to an area in need of improvement, and have a clear target in mind. The candidate must be able to identify noticeable and feasible differences that should exist as a result of the change plan (Wagner et al., 2006).

In the Policy Advocacy Document candidates develop and advocate for a policy at the local, state or national level using reflective practice and research as a means for supporting and promoting reforms in education. Policy advocacy dissertations use critical theory to address moral and ethical issues of policy formation and administrative decision making (i.e., what ought to be). The purpose is to develop reflective, humane and social critics, moral leaders, and competent professionals, guided by a critical practical rational model (Browder, 1995).

Works Cited


4.21.14
ABSTRACT

This paper details a complete program evaluation of an elementary school’s transition from having mainstream classes to a collaborative specialization model of instruction. My study examines how this model of instruction impacts students’ achievement levels and student behavior in a title 1 school. I created the model and in the process of doing my study was required to change it into a model I then defined as Collaborative Specialization. I concluded from my research that this model of instruction was indeed a success because it increased the number of students making learning gains and decreased disciplinary problems.
PREFACE

The most valuable aspects of completing this research project and what made the most impact on my leadership practices were the review of literature, the implementation of this new model of departmentalization that I called collaborative specialization, and analyzing the data. Reviewing the literature made me realize that not much research had been conducted on the effects of departmentalization in an elementary setting. With the shift to Common Core and teacher accountability, it is no surprise that several schools are looking for other ways to teach their students and changing from the traditional self-contained, single teacher model.

The process of implementing collaborative specialization and analyzing data was indeed the most valuable leadership experience from completing this research project. It allowed me to experience first-hand what I believed would allow teachers the ability to dive deeper into the standards and provide rigorous lessons were actually true. Furthermore, as a leader, I am able to stand behind the data collected, which showed that student achievement levels increased and student behavior declined as a result of the implementation of the collaborative specialization model of instruction.
ACKNOWLEDGEMENTS

First and foremost I want to thank my mom for her endless love and support throughout this journey. Thank you for pushing me and encouraging me my entire life. You told me to “go for it” and I did. Without your love and support I would have never been able to complete this work. To my father, who is not physically with me, but always guiding me, I dedicate this dissertation to you. I love you both with all my heart and cannot thank you enough for everything you have done for me.

To my sister Monica, Thank you for always being there, inspiring me, helping me, and giving me the words of encouragement I needed at times. I love you!

I am grateful for all the love and support my grandparents and godmother have given me. You all not only believed in me, but made this a reality by helping me with the finances of this doctoral degree.

I would like to express the deepest appreciation to my committee chair, Dr. Jim Schott. Your leadership, words of encouragement, constructive feedback, and wisdom have made this process an enjoyable one. I am truly honored to have had you as my chair. Thank you for your friendship and countless hours working with me on this process. Without your guidance and support, it would have been next to impossible for me to complete this journey.

I want to acknowledge the National Louis University faculty, Dr. Jim Schott, Dr. Daniel Buckman, Dr. Carol Burg, and Dr. Stu Carrier, for providing me with the educational knowledge I will need as a future leader. I would also like to thank my doctoral cohort group (TA001), especially Nancy Martinez, a close friend and colleague.
Without you, I would have been alone in this journey. Thank you for sharing this adventure with me. I will forever treasure our friendship.

To my canine family, past and present, thank you for the love and entertainment you have provided me throughout the years. Lord knows that I needed those breaks throughout this process. Baby and Bella, you are appreciated!

To my extended family, thanks for all your love and support. You all have been my inspiration and given me the strength I needed to accomplish this goal.

Thank you to the faculty, staff, and students who participated in my research. Without your assistance I would have never been able to complete these studies.
DEDICATION

I dedicate this work in the memory of my father, Manny Villaverde, and grandfather, Jose R. Villaverde. Although you are both no longer with me physically, I know that you have been guiding me through this process and cheering along the way. I miss you both and know that you are always with me.
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SECTION ONE: INTRODUCTION

Purpose

On January 8, 2002, George W. Bush signed into law the No Child Left Behind Act of 2001 (NCLB). The law stated that all children must be highly proficient in their learning. With the passage of this law, schools have been held to higher standards of accountability and it required all districts and schools to hire highly qualified teachers in all the core subjects. Although the passage of NCLB states that teachers are to be highly qualified, expecting elementary school teachers to instruct all subjects with intricate knowledge of each one is unrealistic. It is often stated that elementary school teachers are “generalists.” They are required and expected to teach all subjects to their students, even though they may not be prepared to do so. The subject matter specialization issue is a major personnel need difference between elementary and secondary schools and presents a significant challenge for elementary teachers, particularly in the upper grades.

Bimmer Elementary School (pseudonym), where I teach, is located in a large Florida school district near an amusement park. The school must address students from a variety of social and economic backgrounds. In 2009, 66% of the students qualified for free and reduced lunch. During the 2010 school year, we had an increase of students on free and reduce priced meal plans and have been a Title I school ever since. Bimmer Elementary (BME) is also a Spanish bilingual center, given that 49% of the students are learning English as a second language.

I decided to study a new model of departmentalization. It is the collaborative specialization approach that was used in the fifth grade at BME. It involved eight fifth grade teachers. All eight teachers taught a diverse group of students that included
English Language Learners (ELL) as well as Exceptional Student Education (ESE) and Specific Learning Disabled (SLD) children. Four teachers taught two blocks of reading and social studies while the other four teachers were teaching two blocks of math and science. The school required all teachers to teach language arts to their homeroom students. Therefore, all students received grammar, spelling, and vocabulary instruction during the first part of the day. Using this program model, teachers were paired into two collaborative teams. One team consisted of all teachers teaching the same content areas. For example, there was a reading/social studies team that was comprised of four teachers and a math/science team that consisted of the other four teachers. The other collaborative team included two different content area teachers who were sharing the same group of students within the day. Table 1, shows a typical fifth grade schedule.

Table 1

*Fifth Grade Schedule*

<table>
<thead>
<tr>
<th>Times</th>
<th>Student Instruction and Transitioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45 - 9:00</td>
<td>Students arrive to Homeroom class; attendance; homework check</td>
</tr>
<tr>
<td>9:00 - 9:45</td>
<td>Specials (Physical Education, Art, Music, Computers, and AIMS Lab)</td>
</tr>
<tr>
<td>9:45 - 10:15</td>
<td>Intervention/Enrichment</td>
</tr>
<tr>
<td>10:15 - 12:40</td>
<td>Stay with Homeroom teacher for either Reading or Math block</td>
</tr>
<tr>
<td>12:40</td>
<td>All 5th grade students’ transition to afternoon block.</td>
</tr>
<tr>
<td>12:40 - 3:00</td>
<td>Afternoon block with a different teacher for either Reading or Math</td>
</tr>
<tr>
<td><em>11:45- 12:30</em></td>
<td>(Lunch- depends on homeroom teachers’ lunch schedule)</td>
</tr>
</tbody>
</table>

The purpose of my research study was to determine what impact collaborative specialization as a new model of departmentalization has on student achievement. The purpose of the program itself was to improve the total number of fifth grade students who scored at or above proficiency levels on the 2013 reading, math, and science Florida Comprehensive Assessment Test 2.0 (FCAT). I monitored, observed, verified, and
examined teacher strategies and student achievement during the implementation of collaborative specialization as a new model of departmentalization.

More specifically, I examined student progress during the year in reading, math, and science in preparation for the FCAT. There were four teams in the fifth grade. Each team had a reading/social studies teacher and a math/science teacher. My research consisted of data obtained from collaboratively specialized fifth grade classes. I collected data from baseline assessments, mid-year assessments, EduSoft scores, FCAT, student and teacher surveys, Florida Assessments for Instruction in Reading (F.A.I.R), and student referrals.

Additionally, I compared data from my specialized fifth grade classes with the fifth grade classes from the prior year when the school did not departmentalize as well as compared data from some neighboring schools that had the same student demographics. In order to evaluate this further, I tracked the progress of the fifth graders who left Bimmer after the 2011-2012 school year and went on to sixth grade at Freedom Middle School. I gathered these students’ performance data in order to compare their progress to incoming sixth graders of the following school year. Therefore, I was able to analyze the data collected horizontally and vertically.

**Rationale**

As a fifth grade teacher, I was concerned greatly with the manner of how we were educating students. I have witnessed on several occasions how we do not prepare students adequately for the next grade level. Every year, teachers across every grade level report they are receiving students who have not mastered the standards from the previous years. They say numerous students entering fifth grade lack the content
knowledge that teachers were supposed to teach in the previous year. Math is just one content area that students are having a difficult time mastering. During the 2010-11 school year, 67% scored 3 or higher. Students entering fifth grade should have a deep understanding on how to add, subtract, borrow, multiply, and divide. However, this was not the case for one third or 33% of the class.

Students’ knowledge of history and science was not where it needed to be according to fifth grade students’ pretests administered during the first weeks of the 2011-2012 school year. Therefore, this caused some challenges for students when they entered middle school, as one school year of instruction is not enough for them to learn all the skills and information they missed throughout the years. With that being said, math and reading are usually the subjects that teachers focus on while others get overlooked. This is understandable. As we place more emphasis on testing and accountability for specific subjects, teachers will focus on what is assessed.

In addition, it seems that with the move toward the Common Core Standards, specialization will be the most logical move a school might make. Why? Since the Common Core Standards require more in-depth knowledge throughout all areas, unlike our previous standards, this model will expose students to more high level benchmarks to meet emerging societal demands and more meaningful and challenging lessons.

Goals

The goal of my study was to determine what impact collaborative specialization at intermediate grade levels has on fifth grade student achievement as compared to the traditional model of instruction where one teacher teaches all content areas. I have several assumptions that I will be testing during this study. I assumed teachers teaching
only two subjects as opposed to all subjects would be able to provide more meaningful
instruction to students than those who teach all subjects. I also assumed teachers, who
are able to become more specialized in the content areas, will be able to provide deeper
understanding of standards since they can become “experts” in their content areas.
Moreover, I assumed teachers, who focus on two subjects instead of five subjects, will
spend more time developing plans with fewer time constraints.

**Research Questions**

The primary question driving this study was: What effect will the collaborative
specialization model have on student achievement and student behavior? The secondary
questions include: What effect will collaborative specialization have on teachers covering
standards in more depth using this model of instruction? What effect will collaborative
specialization have on the rigor level of the assignments being given and the instruction
being taught? What effect will collaboration specialization have on teachers planning
with their department and teams?

**Curriculum Framework**

Schubert (1996), in his writings, focused on curriculum and how it might be
taught. Usually when people hear the word curriculum, they think of the textbooks
students will be using to learn certain concepts. However, curriculum deals with the
central question of what is worth knowing. Therefore, a mere textbook would not be
sufficient in what our students need today. I believe by departmentalizing, teachers will
be able not only to make better use of the text, but have the time to garner many more and
different types of resources, since their focus would not be divided between all subjects.
Schubert (1996) identified four traditions of curriculum thought: (a) intellectual traditionalism, (b) social behaviorism, (c) experimentalism, and (d) critical reconstructionism. By departmentalizing the fifth grade, I think students will experience the benefits of a mixture of these four curriculum thoughts. For example, the reading and social studies teacher could provide historical documents and literature (great works) within the curriculum and stimulate students to probe deeper into great ideas and think more critically (intellectual traditionalism). With more time to specialize and plan, teachers could tie their lessons to student needs for today and tomorrow (social behaviorists). One could plan ways for students to draw on their own experiences to identify their own curriculum interests and needs (experientialism). Finally, teachers could plan and be more creative in insuring no student is ignored and all provided an equal opportunity to learn (critical reconstructionism).

In essence, by using the collaborative specialization model, students would be exposed to a blend of these curriculums as well as teaching strategies that address a variety of learning styles. Using a textbook as the sole curriculum is not enough for today’s schools. I believe, by departmentalizing, teachers will have a better opportunity to provide a broader curriculum experience while addressing the skills needed for the 21st century as well as address the need for rigor, relevance, and relationships through student engagement together in real, hands-on learning activities.

**Conclusion**

In going through this process, I initially thought the buy-in from my principal was going to be a simple task, since she departmentalized her former school. However, this was not the case. She personally understood the challenges and risks in attempting such
an organizational change and she helped me understand the importance of developing a sound plan. With this advice, I met with the fifth grade team, which consisted of 8 teachers, 6 mainstream classrooms, and 2 sheltered classrooms, and identified those who would like to participate in such a program and what content area they desired to teach.

We looked over data to see where our teachers’ strengths were as well as what subjects they and I were passionate about and would enjoy teaching. After this, I designed a schedule to account for instructional time for students to present to the principal. However, the principal made some reassignments based on our school needs. In addition to that change, she revamped the departmentalized teams. This simply caused me to rethink how we might organize another specialization approach.

Initially, I was hoping to garner all intermediate grades to take part in this study, but this was not possible under the changes made. Modifications had to be made. I am pleased that, with the approval of my principal, I was able to conduct the study with the incoming fifth grade students and teachers. I was anxious to implement it and see how the students, parents, and staff viewed this structural change and how this change might impact achievement and the learning gaps between various learning groups.
SECTION TWO: REVIEW OF LITERATURE

Introduction

The organizational structure of elementary schools is one that many school districts are looking at changing (Liu, 2011). Elementary schools throughout the nation are looking for more effective ways to instruct students. Therefore, there are many states and districts that are considering or have been implementing different forms of departmentalization (DelViscio, & Muffs, 2007). With the shift to Common Core and teacher accountability, it is no surprise that several schools are changing from the traditional self-contained, single teacher model. Few studies have been conducted on the effect on achievement levels when elementary students are taught in a departmentalized program. However, there has been some research conducted on the impact of departmentalization on the attitudes of elementary school students (Chang, Muñoz, & Koshewa, 2008). Chang et al. (2008) conducted a study to determine if the departmentalization model is appropriate for younger students. The researchers wanted to see if there were any effects on students’ views of school as well as connectivity to the teacher. The results of this study indicated that a departmentalization model, where a student interacts with multiple teachers, does not necessarily facilitate the establishment of a caring classroom where students feel connected (Chang et al., 2008).

Chan and Jarman (2004) wrote about the advantages of the departmentalization model. The authors noted that one elementary school teacher cannot be a “jack of all trades who is equally strong in all areas of the elementary curriculum” (Chan & Jarman, 2004, p. 70). In addition, they stated that for years, elementary schools have been using the self-contained model of instruction and therefore are operating with instructional
monotony and academic limitations. Although Chan and Jarman cited advantages for using the departmentalization organizational structure, there is no research evidence to support it.

Teacher competency plays a tremendous role in student performance. Effective teachers possess deep knowledge in the content areas that they teach and often have majored in those areas. Therefore, they are able to engage students with relevant, meaningful, and important content (Nelson, 2001). Much attention has been placed on science and math, especially when it comes to educating students at the elementary level. Students entering middle and high schools have shown severe deficiencies in science and math (Nelson & Landel, 2007). Nelson and Landel (2007) found 70% of all students enter with a major deficiency and are rarely able to remedy this through traditional remediation courses.

Nelson and Landel (2007) stated, “Effective teachers matter more than factors such as family income, parent education, race, and ethnicity” (p. 74). They strongly believed that schools should move towards a collaborative specialist model. The collaborative specialist model assembles teachers in collaborative groups on the basis of their proven expertise in subject matter content and pedagogy. During their study, two schools that had similar student and teacher demographics were compared. One school, School A, had a committed teacher who had accumulated over 200 hours of professional development in science. After several years of data, School A showed improvement not only in science, but in all other areas as well. The only difference was that school A had a specialist teacher who instructed students in math and science, while his counterpart provided instruction in reading literacy and social studies (Nelson & Landel, 2007).
classic study conducted by the University of Tennessee Value-Added Research Center indicated the factor affecting student performance and academic gain most is teacher effect (Nelson & Landel, 2007).

Gerretson, Bosnick, and Schofield (2008) conducted a study wherein they identified factors associated with the growing use of teacher specialists in elementary schools. Mathematics achievement always has been a hot topic of discussion within our country (Gerretson, Bosnick, & Schofield, 2008). Student achievement goes hand-in-hand with the level of content knowledge teachers possess (Gerretson, et al., 2008). Many elementary teachers often lack sufficient knowledge and understanding of math and need more preparation or staff development to be more effective (Gerretson, et al., 2008). Consequently, classroom teachers often lack sufficient understanding of math and perceive mathematics as the study of algorithms (Gerretson, et al., 2008).

**Self-Contained Classroom**

The traditional model or self-contained classroom is the organizational structure that most elementary schools use throughout the United States (Chan & Jarman, 2004). In this model, students receive their education from one teacher who is responsible for teaching all content areas: language arts, reading, math, science, and social studies. Advocates for a self-contained classroom claim that this organizational structure promotes instruction that is child-centered (McGrath & Rust, 2002). Using this model of instruction, a teacher most often becomes a generalist.

**Departmentalization**

Departmentalization refers to the organizational structure where a teacher teaches in an area of specialization. Students transition between teachers for instruction.
Departmentalization was established as an attempt to address the pitfalls of the self-contained classroom organization (Chan & Jarman, 2004). This model allows teachers to instruct students in their content area or areas of specialization. Moreover, this model allows teachers to form teams to collaborate, have greater satisfaction when teaching, and aligns with the middle school organizational structure, thus allowing students to transition to it (Chan & Jarman, 2004).

**Co-Teaching and Team Teaching**

Co-teaching is a version of departmentalization. In this organizational model, students are being taught by two certified teachers. Both teachers work together to provide instruction to all students and are accountable for student performance. These teachers work collaboratively to discuss how instruction will occur (Murawski, 2012). Moreover, in co-teaching, the student-teacher ratio is improved. There might be 30 students to two teachers as opposed to 22 students to one teacher. Team teaching, on the other hand, is when two classrooms are combined and teachers collaborate on a lesson (Cook & Friend, 2004). For example, two elementary teachers might come together to teach a subject or subjects or a special lesson on a topic of mutual interest requiring the knowledge and skills of each teacher.

**Collaborative Specialization**

Collaborative specialization is a term I invented for this research study. Collaborative specialization is a form of departmentalization where a team of two teachers share a group of students. Therefore, students only transition once during the day. As a result, if a teacher needs to spend more time to cover certain material or has a
“teachable moment,” they have the flexibility to call their partner to ask for additional time before students’ transition.

In my study, I define collaborative specialization as teachers specializing in their content areas and collaborating in two teams. One team consisted of all teachers teaching the same content areas. For example, there was a reading/social studies team comprised of four teachers and a math/science team that included the other four teachers. The other collaborative team had two different content area teachers sharing students within the day. These two teachers were partners in teaching the same group of students. This partnership collaborated regarding student interests, needs, behavior, and achievements. These teachers also attended parent-teacher conferences together to discuss student progress. The overall goal of a collaborative specialization model is to allow teachers to specialize in their content areas, plan together, and collaborate among two teams.

**Conclusion**

I believe self-contained classrooms are not the most effective structure for teaching our students. Research shows that an elementary teacher cannot possibly be an expert in all content areas. “The self-contained classroom organization is predicated on the assumption that an elementary school teacher is a Jack (or Jill)-of-all-trades who is equally strong in all areas of the elementary curriculum. Yet we know intuitively that most classroom teachers are not multi-talented, and that they have no choice but to teach in some areas where they have no fundamental interest” (Chan & Jarman, 2004, p. 70). School districts are looking for other ways to better meet the needs of students (DelViscio & Muffs, 2007). Consequently, departmentalization in elementary schools intermediate grade levels has been on many administrators’ minds (Liu, 2011). When teachers are
specialists in their content areas, I believe they are able to teach with deeper knowledge and understanding. My research of the literature indicates little information about its impact on learning. Therefore, I plan to take a closer look at it by analyzing quantitative and qualitative data regarding the impact of my model on student achievement.
SECTION THREE: METHODOLOGY

Research Design Overview

One of the most essential factors in raising student achievement is a highly qualified teacher. This is the main reason that NCLB (2001) requires all schools to provide highly qualified teachers in all core subjects. According to the U.S. Department of Education, research shows that teacher subject-matter knowledge is greatly associated with student learning (U.S. Department of Education, 2006). Therefore having a highly qualified teacher has never been more important than during this era of high standards and high expectations.

On July 27, 2010, the Florida State Board of Education unanimously voted and approved the adoption of the Common Core State Standards (Florida Department of Education, 2010). Florida has modified these standards to include such things as Calculus and cursive writing, but are otherwise essentially the same.

The Common Core State Standards focus on core conceptual understandings and procedures starting in the early grades, thus enabling teachers to take the time needed to teach core concepts and procedures well—and to give students the opportunity to master them.” (Common Core State Standards Initiative, 2012, p. or para/section)

Gone are the days where teachers had few standards to teach and enough time to have their students master all the standards.

Elementary teachers who currently teach in a traditional classroom are required to wear many hats. These teachers are required to teach all content areas: reading, language arts, math, science, and social studies. However, when a teacher specializes in one or two
areas, they are considered to be specialists in the content and the departmentalization model can be formed. According to Gerretson et al. (2008), departmentalization allows teachers to narrow their focus into specific content areas, positively impacting student achievement.

The purpose of my study is to determine what impact collaborative specialization has on student achievement in fifth grade. To measure growth, I monitored student progress during the year in reading, math, and science in preparation for the FCAT 2.0. I collected, analyzed, and measured student data using FCAT 2.0, which is a criterion-referenced test all students are required to take in grades three through 11 every spring. I used my personal monitoring and the FCAT 2.0 to gather the quantitative data for my study. I conducted two interviews of teachers and school leaders to gain their perspectives and more in-depth information regarding my research questions.

**Participants**

The participants in this study were students, teachers, and administrators. The student sample included incoming fifth graders who were attending BME during the 2012-2013 school year. The teachers who participated in the study were six fifth grade teachers who implemented this new program. Two fifth grade teachers opted out of participating in the study due to personal reasons that were not related to this study. Furthermore, there were two administrators, principal and assistant principal, overseeing the evaluation of student achievement.

**Data Gathering Techniques**

I conducted this study using various types of data. Each of these data types in my study was essential to determine the results. I collected and analyzed all data in order to
make a more accurate interpretation of the results. I thought this data collection approach was important for me to gather and formulate a valid conclusion on whether or not collaborative specialization increases student achievement.

**Interviews**

There were two interviews completed as part of the study. These interviews consisted of one-on-one interviews with teachers who were involved with the collaborative specialization study (see Appendix A). The interviews were a combination of two of Patton’s types of interviews, informal conversational interview and interview guide approach (Patton, 1987). The goal of the interviews was to ask meaningful questions to active participants in this study to gather in-depth information regarding both my primary and secondary research questions.

**Surveys**

I also conducted surveys using open-ended questions for the purpose of seeking specific responses. Teachers responded to my surveys at the beginning, middle, and end of the year (see Appendix B, C, and D). I surveyed the principal and assistant principal only at the beginning and end of the year (see Appendix E). I conducted the teachers’ and administrators’ surveys using printed copies. I used the results from the surveys as a guide for interview questions as well as a base for future investigations.

**Observations**

I also conducted classroom observations of student performance on a bi-weekly or monthly basis. I asked each teacher to observe student performance and take brief notes on student behavior and achievement (see Appendix F). I conducted observations of teacher and student performance during classroom walkthroughs (see Appendix G).
used Marzano’s Art and Science of Teaching Framework since my district and school are using it currently to evaluate teacher performance. I conducted observations through classroom walkthroughs of approximately 10 to 15 minutes. During that time, I focused on Domain 1: Classroom Strategies and Procedures, Design Question 3: What will I do to help students practice and deepen their understanding of new knowledge? Observations were a critical piece of my data collection because they told me whether or not teachers were delivering meaningful lessons at a deeper level and if learning truly was happening. More importantly, it revealed at what level the students were actively involved and engaged.

**Test Scores (EduSoft: Mini Assessments and Benchmarks/FAIR/FCAT)**

I recorded, monitored, and analyzed the assessments completed by students in an interactive data notebook. Each subject area had a chart with the benchmarks that would be covered. I held teachers accountable to keep these notebooks up-to-date on a weekly basis as well as color code them according to their proficiency levels. Red meant needs much improvement, yellow meant needs improvement, and green meant on target. Furthermore, teachers had access to all student data on the Bimmer intranet server. I told the teachers it was vital to the study that they track achievement levels in order to conduct the study with fidelity.

**Edusoft.** Edusoft is a product that many school districts use in order to track student performance. This Houghton Mifflin product is a web-based student assessment platform that is easily accessible to anyone with an Internet connection. Edusoft gives school districts, principals and teachers the ability to monitor and track student performance. During this study, I used Benchmark assessments and Edusoft to monitor
and analyze student performance in reading, math, and science. Edusoft provides answer sheets, which were scanned into the system to grade automatically the Benchmarks and instant feedback to districts, principals, and teachers so instruction can be modified to meet the needs of the students (Edusoft, 2012). BME requires teachers to monitor individual student performance for all of their students in their classes on each standard throughout the school year. Teachers must keep an up-to-date chart with all data for administration to review as they see fit.

**Standards and benchmarks.** The Next Generation Sunshine State Standards (NGSSS) identifies what Florida public school students should know and be able to do. A standard is a general idea or concept that a student will be learning. Benchmarks identify what a student should know and be able to do at the end of each grade and is more specific by grade level than standards. Therefore, benchmark assessments were given twice a year to track student performance, one in the fall and the other in winter. These assessments guide teacher instruction to pinpoint areas of needs for students. The school administers benchmark assessments using EduSoft. All public schools throughout my district use EduSoft during the fall and winter to track student progress within the school year. Therefore, I used these scores to compare how students were doing versus the previous class that was using the traditional model of instruction.

**FCAT and FCAT 2.0.** The FCAT began in 1998 as part of Florida's overall plan to increase student achievement by implementing higher standards (FLDOE, 2012). The FCAT consists of criterion-referenced assessments in mathematics, reading, and science. This assessment measures student progress toward meeting the Sunshine State Standards (SSS) benchmarks. However, during the 2010-2011 school year, Florida began the
transition from the FCAT to the FCAT 2.0 and Florida End-of-Course (EOC) Assessments (FLDOE, 2012).

The FCAT 2.0 measures student achievement of the NGSS. The transition from FCAT to FCAT 2.0 was phased in with 2011 FCAT 2.0 Reading and Mathematics. The FCAT 2.0 Science was administered to students for the first time this spring (2012). The writing portion of the FCAT will continue to be administered through 2014. With the transition from FCAT to FCAT 2.0 came new and higher challenging levels of achievement for students.

**Data Analysis Techniques**

I analyzed these data using different techniques. I coded the interviews and surveys as well as tallied according to the responses for each question. I organized surveys by theme in order to analyze responses by participants. I analyzed and categorized observations according to themes. Lastly, I collected and analyzed test scores statistically and by proficiency levels.

**Ethical Considerations**

I treated all of the participants in accordance with the ethical guidelines of the American Educational Research Association (AERA), the American Psychological Association (APA), and National-Louis University Instructional Review Research Board (IRRB). Although there were no identifiable risks involved for participating in this research study, I kept in mind and addressed three important notions when dealing with all participants. First, I surveyed and interviewed all fifth grade teachers, the principal, and assistant principal about their experiences in implementing this new program opening the possibility for considerable inter-participant information exchanges that might have
impacted responses. Second, there was a possibility that teachers might feel hesitant to share their true personal perceptions and feelings about this new organizational structure because they feared it might become public information. Third, during classroom observations, teachers may have felt uncomfortable and reluctant to allow me to observe them. I believe I addressed these issues appropriately and as a result, my study can have the overall benefit of a more effective organizational structure that leads to more effective teachers with deeper content knowledge, increased student engagement, and higher student achievement.

All participants completed forms expressing consent to participate in this research study. Participation was strictly voluntary and participants could have withdrawn at any time during the study. I took steps to ensure confidentiality. I kept all information and data collected in strict confidence to protect the identity of all participants.

I incorporated all of these considerations during the study. I took every precaution to ensure that all participants were safe, comfortable, and had the freedom to participate freely. I adhered to all the ethical standards of the AERA during the conducting of this research study.

**Conclusion**

I thought it was critical that I follow the previously mentioned actions to ensure that the end results were valid. This study also required a significant amount of input from all the stakeholders involved. Therefore, I allowed all stakeholders the opportunity to voice their opinions on the new program I addressed their comments properly. I used these data to judge the impact of the collaborative specialization model. Additionally, I
used the results from the participants involved and other stakeholders to make program adjustments throughout the school year.
SECTION FOUR: FINDINGS & INTERPRETATION

Findings

The purpose of my research study was to determine the impact of collaborative specialization on student achievement. The purpose of the program itself was to improve the total number of fifth grade students who score at or above proficiency levels on the 2013 reading, math, and science FCAT 2.0. I closely monitored, observed, and examined student achievement during the implementation of collaborative specialization. More specifically, I monitored student progress during the year in reading, math, and science in preparation for the FCAT.

I used a combination of instruments to collect and analyze the research questions presented in this study. I also compiled both qualitative and quantitative data to review the effectiveness of the collaborative specialization model. I used the findings of the study to answer the following research questions:

1. What effect did the collaborative specialization model have on student achievement?
2. What effect did collaborative specialization have on teachers covering standards in more depth using this model of instruction?
3. What effect did collaborative specialization have on the rigor level of the assignments being given and the instruction being taught?
4. What effect did collaboration specialization have on teachers planning with their department and teams?
5. What effect did collaboration have on students transitioning to middle school?
Surveys

I distributed three surveys throughout the school year to the fifth grade teachers at BME. I used these surveys to see whether and how the collaborative specialization model of instruction impacted their teaching styles, student academics, planning, and their outlook on this model of instruction. Although there were eight fifth grade teachers who were taking part in the collaborative specialization model, only six teachers wished to participate in the study. Two fifth grade teachers opted out of participating due to personal reasons not associated with the research project.

The first survey (Appendix B, questions #1 through 5), which I handed to the fifth grade teachers on October 9, 2012, was the beginning of the year survey. At the same time, I had them sign a consent form. I gave the survey to 8 teachers; 6 surveys were returned for a response rate of 75%. This survey consisted of five questions. In survey question #1 I asked the teachers “How do you feel about collaborative specialization?” Teacher responses were coded to reveal themes and patterns within each question. According to Table 2, all fifth grade teachers participating in the study stated that they liked/loved the new instructional model of collaborative specialization. Furthermore, 83% responded they had more time to plan lessons as they only had to worry about two subjects as opposed to five. Sixty-seven percent reported they felt that collaborative specialization benefited the students as well as the teachers’ performance in the classroom.
Table 2
Participants' Response Pattern to Question 1

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Like/ Love it</td>
<td>6 (100%)</td>
<td>A, B, C, D, E, F</td>
</tr>
<tr>
<td>2</td>
<td>Positive Experiences for teacher and students</td>
<td>4 (67%)</td>
<td>A, C, E, F</td>
</tr>
<tr>
<td>3</td>
<td>More time to plan for lessons</td>
<td>5 (83%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>4</td>
<td>Ability to specialize in subject that you enjoy</td>
<td>2 (33%)</td>
<td>C, F</td>
</tr>
<tr>
<td>5</td>
<td>Students benefit</td>
<td>3 (50%)</td>
<td>A, D, E</td>
</tr>
</tbody>
</table>

In survey question #2, I asked the teachers “What are at least two major concerns you are having coming into this new program?” Since I gave the survey within the first few months of the school year, teachers were able to list two or more major concerns they were having with the implementation of the new program. All six teachers expressed a concern with ProgressBook (see Table 3). ProgressBook is the system that my school district uses to take attendance and record grades. Although teachers had used this program during the previous years when they were self-contained, the setup was never adjusted for teachers assigned according to their content area. Therefore, teachers had to share their grade book so their partner teacher could record grades. Another area of concern was FCAT scores. My school district, like many school districts around the county, is tying student performance on standardized tests to teacher pay as well as their evaluations. Therefore, 50% of the teachers surveyed stated they were concerned about how their evaluations would be tied to student performance if they did not teach their homeroom students all subjects. The last area of concern for survey participants was
trying to keep both classes in my study on the same page. Thirty-three percent of the teachers stated that this was a concern for them.

Table 3

Participants' Response Pattern to Question 2

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Progressbook</td>
<td>6 (100%)</td>
<td>A, B, C, D, E, F</td>
</tr>
<tr>
<td>2</td>
<td>FCAT Scores tied to Teacher performance</td>
<td>3 (50%)</td>
<td>A, B, D</td>
</tr>
<tr>
<td>3</td>
<td>Keeping both classes on the same page</td>
<td>2 (33%)</td>
<td>B, E</td>
</tr>
</tbody>
</table>

Table 4 below shows how the participants responded to addressing the concerns stated in question two. In response to survey question #3 which sought suggestions on how to address concerns, 100% of the survey participants indicated that ProgressBook should be setup in the same manner as the secondary schools to allow teachers to see student information on all their reports as well as enter grades without sharing their grade book access. Fifty percent of the survey participants indicated that they were unsure on how to address the concerns.
Table 4

Participants’ Response Pattern to Question 3

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not sure</td>
<td>3 (50%)</td>
<td>B, D, E</td>
</tr>
<tr>
<td>2</td>
<td>Set up Progressbook like secondary schools</td>
<td>6 (100%)</td>
<td>A, B, C, D, E, F</td>
</tr>
</tbody>
</table>

In survey question 4, I asked teachers “Have you had any preparation activities in participation for this experience? If so, which one was the most helpful and why?”

There was a pattern noted, which is presented in Table 5. Half of the participants had prior experience teaching at the secondary level as a specialist in a core academic area, while half did not.

Table 5

Participants’ Response Pattern to Question 4

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Taught in a middle school</td>
<td>3 (50%)</td>
<td>A, C, F</td>
</tr>
<tr>
<td>2</td>
<td>None</td>
<td>3 (50%)</td>
<td>B, D, E</td>
</tr>
</tbody>
</table>

The last question (#5) on the beginning of the year survey involved participants listing any preparation that they may need. After looking at Table 6, it is evident that the
only preparation that was suggested was more professional development so the teachers could become more specialized in their content area.

Table 6

*Participants' Response Pattern to Question 5*

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Professional development</td>
<td>5 (83%)</td>
<td>A, B, D, E, F</td>
</tr>
</tbody>
</table>

The mid-year survey (Appendix C, questions #1 though #5) was given to the participants on February 25th. I gave the survey to 6 teachers; 6 surveys were returned, for a response rate of 100%. Participants were asked to answer five open-ended questions with as much detail as possible. The survey revealed a number of interesting facts about how the new program had affected teacher preparation and student performance.

As noted in survey question 1, Table 7, participants were asked, “How has your planning changed using the collaborative specialization model?” Participants stated their planning had changed due to collaborative specialization. Eighty-three percent of the participants stated planning was easier and lessons were developed fully and at a much deeper level than in previous years. Additionally, 83% of them stated planning was focused because they only taught two subjects. Fifty percent of teachers reported that they now had the opportunity to share ideas with other teachers and reflect with one another on their teaching. One participant, 17%, stated that they were more efficient.
Table 7

Participants' Response Pattern to Question 1

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Easier</td>
<td>5 (83%)</td>
<td>A, C, D, E, F</td>
</tr>
<tr>
<td>2</td>
<td>Develop lessons fully/deeper</td>
<td>5 (83%)</td>
<td>A, B, C, E, F</td>
</tr>
<tr>
<td>3</td>
<td>Sharing ideas/reflecting on teaching</td>
<td>3 (50%)</td>
<td>A, B, F</td>
</tr>
<tr>
<td>4</td>
<td>Focused</td>
<td>5 (83%)</td>
<td>A, B, C, E, F</td>
</tr>
<tr>
<td>5</td>
<td>Efficient</td>
<td>1 (17%)</td>
<td>E</td>
</tr>
</tbody>
</table>

Survey question 2, asked teachers “What instructional strategies (at least two) have changed as you moved into this new model?” How are they different from what you were doing before? Table 8 reveals that instructional strategies had changed as a result of the new model of instruction. Participant responses were very similar in the way they altered their instructional strategies. Eighty-three percent stated they had more time to work with small groups, had more mobility within the class, and students were able to communicate a deep understanding of their new knowledge. Sixty-seven percent reported that they were able to incorporate interactive notebooks and 17% indicated that they were able to incorporate vocabulary enrichment activities.
Table 8

Participants' Response Pattern to Question 2

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interactive Notebooks</td>
<td>4 (67%)</td>
<td>A, B, C, F</td>
</tr>
<tr>
<td>2</td>
<td>More time with small group instruction</td>
<td>5 (83%)</td>
<td>A, B, D, E, F</td>
</tr>
<tr>
<td>3</td>
<td>More student mobility and verbiage of learning</td>
<td>5 (83%)</td>
<td>B, C, D, E, F</td>
</tr>
<tr>
<td>4</td>
<td>Vocabulary enrichment</td>
<td>1 (17%)</td>
<td>C</td>
</tr>
</tbody>
</table>

In survey question 3 I asked, “How has collaborative specialization changed your role as a teacher?” All participants stated multiple ways in which their role had changed. Eighty-three percent of the participants stated they were able to go more in-depth with each benchmark. Furthermore, Table 9 shows that 67% of the teachers surveyed reported that they were able to hold more open conversations with their co-teacher about student performance. Fifty-percent stated that they were not as stressed and were able to have their students make life connections. Thirty-three percent of the participants reported that they concentrated more on student learning and were able to become specialist in their subject areas.
Table 9

Participants’ Response Pattern to Question 3

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Not as stressed</td>
<td>3 (50%)</td>
<td>A, E, F</td>
</tr>
<tr>
<td>2</td>
<td>Open conversations with team mates about student performance</td>
<td>4 (67%)</td>
<td>B, C, E, F</td>
</tr>
<tr>
<td>3</td>
<td>Go deeper within content</td>
<td>5 (83%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>4</td>
<td>More concentrated on student learning</td>
<td>2 (33%)</td>
<td>B, C</td>
</tr>
<tr>
<td>5</td>
<td>Specialist</td>
<td>2 (33%)</td>
<td>D, F</td>
</tr>
<tr>
<td>6</td>
<td>Student make life connections</td>
<td>3 (50%)</td>
<td>B, C, F</td>
</tr>
</tbody>
</table>

When asked what their most beneficial activities (list at least two) and results were (list at least two) to date using this model of instruction, the responses were very similar (see Table 10). Sixty-seven percent of the participants stated they were able to do more with their students in regards to small group instruction for struggling students, increase the number of hands-on activities, experiments, and manipulatives used during lessons, and collaborate and share ideas. Fifty percent reported they could better collaborate with their department to share ideas and reflect on lessons taught. Thirty-three percent of the teachers reported the use of the Interactive Student Notebooks as one of the most beneficial activities to use during this model of instruction.
Table 10

Participants' Response Pattern to Question 4

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intense small group instruction for struggling students</td>
<td>4 (67%)</td>
<td>A, C, E, F</td>
</tr>
<tr>
<td>2</td>
<td>More hands on activities/ manipulatives</td>
<td>4 (67%)</td>
<td>B, C, E, F</td>
</tr>
<tr>
<td>3</td>
<td>Planning</td>
<td>3 (50%)</td>
<td>A, B, D</td>
</tr>
<tr>
<td>4</td>
<td>Interactive Student Notebooks (ISN)</td>
<td>2 (33%)</td>
<td>A, F</td>
</tr>
<tr>
<td>5</td>
<td>Collaborate/share ideas</td>
<td>4 (67%)</td>
<td>A, B, D, F</td>
</tr>
</tbody>
</table>

With survey question 5, I asked participants if they were experiencing any problems with the collaborative specialization model. Of the six participants, three participants were teachers of reading/social studies and the other three were math/science. Three math/science teachers all stated the same reason (see Table 11). The math/science teachers noted they were most concerned with students being pulled from their math and science class to be given intensive reading. As a result, those students were missing an average of 150 minutes of grade level math or science content on a weekly basis. Additionally, the math/science teachers stated their concern of the number for students in math that were performing two to three levels below their expected grade level. Fifty percent of the participants responded that Progressbook was still causing them problems. Finally, one participant (33%) reported that they missed seeing the “whole child.”
I gave the end-of-the-year survey (Appendix D, questions # 1 through 8) to participants on June 3rd. Five of the six surveys were returned for a response rate of 83%. I coded and analyzed the data collected in Tables 12-19. In response to survey question one; participants stated how they now felt about the collaborative specialization model. One hundred percent of the teachers surveyed believed this structure of instruction was the best model. Eighty percent stated collaborative specialization had benefited not only students, but teachers as well. Forty percent of the fifth grade teachers surveyed claimed this model of instruction was the most efficient way to teach students. Twenty percent of the teachers surveyed reported that the collaborative specialization model allowed them to focus on content and that it also utilized teachers’ talents/interests.
Table 12

Participants’ Response Pattern to Question 1

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Great/ Best way</td>
<td>5 (100%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>2</td>
<td>Beneficial for teachers and students</td>
<td>4 (80%)</td>
<td>A, C, D, F</td>
</tr>
<tr>
<td>3</td>
<td>Focus</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
<tr>
<td>4</td>
<td>Efficient way of teaching</td>
<td>2 (40%)</td>
<td>B, F</td>
</tr>
<tr>
<td>5</td>
<td>Utilizes teachers talent/ interests</td>
<td>1 (20%)</td>
<td>C</td>
</tr>
</tbody>
</table>

The second survey question, Table 13, required participants to list the most positive aspects of making the change from a traditional model of instruction to the collaborative specialization model. All five teachers (100%) stated the change to collaborative specialization had allowed them to concentrate and focus on what they were teaching because they had fewer subjects to teach. Sixty percent of the teachers stated they were able to plan lessons to include greater rigor. Two participants (40%), reported that the most positive aspect of making this change was their ability to plan more effectively. One participant (20%) reported that he felt they had more time to teach.
Table 13

Participants' Response Pattern to Question 2

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fewer subjects/ concentrate/ focus</td>
<td>5 (100%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>2</td>
<td>Rigor</td>
<td>3 (60%)</td>
<td>A, D, F</td>
</tr>
<tr>
<td>3</td>
<td>Time</td>
<td>1 (20%)</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Plan efficiently/ better</td>
<td>2 (40%)</td>
<td>D, F</td>
</tr>
</tbody>
</table>

With survey question 3 I asked participants, “What was the most difficult aspect of making this change for you? Why?” All teachers were unsure of how this model of instruction would impact their evaluation (see Table 14). Teacher accountability has been a touchy topic for all educators. My school district adopted the Marzano Teacher Evaluation System to evaluate teacher performance. After Florida’s Senate Bill 736, “The Student Success Act,” was signed, my school district developed a teacher evaluation that combines student growth measure with the assessment of the delivery of core effective practices that have been strongly linked to student achievement in order to evaluate teacher performance. During the final evaluation, evaluators combine the teacher observation scores with the outcome of students’ standardized test for the teachers Value Added Model (VAM) score.

VAM is a score that reflects student learning growth throughout the school year. Additionally, VAM is a covariate model used to measure the impact teachers have on their students’ learning. This score also takes into account other educational factors that may impact the students’ learning process. For example, the other factors may
include if a student is ESE, ESOL, or on free and reduced lunch. Using this model allows teachers a “level playing field” since all students are not the same. Unlike middle school teachers, elementary teachers are getting evaluated solely based on their homeroom class FCAT data although they may have taught only one or two of the three subjects on which fifth grade students are being tested. As a result, 100% of the teachers surveyed stated they were concerned with their VAM scores.

Sixty percent of participants reported the use of Progressbook and how to setup the program to share classes as one of the most difficult aspects of making the change to the collaborative specialization model. Forty percent of the teachers reported that they missed teaching other subjects and not knowing if their students were learning from the other teachers. Twenty percent reported that they missed seeing the whole child (that is what they were learning and what they knew in all subjects) and the uncertainty of their knowledge of the subject they were teaching.
Table 14

*Participants' Response Pattern to Question 3*

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sharing Progressbook</td>
<td>3 (60%)</td>
<td>A, D, F</td>
</tr>
<tr>
<td>2</td>
<td>Not knowing if my students were learning from the other teacher/Trust</td>
<td>2 (40%)</td>
<td>B, C</td>
</tr>
<tr>
<td>3</td>
<td>Missing teaching subject that I was not assigned</td>
<td>2 (40%)</td>
<td>B, D</td>
</tr>
<tr>
<td>4</td>
<td>Impact on my evaluation/ VAM</td>
<td>5 (100%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>5</td>
<td>Knowledge on subject</td>
<td>1 (20%)</td>
<td>C</td>
</tr>
<tr>
<td>6</td>
<td>Miss knowing the whole student</td>
<td>1 (20%)</td>
<td>D</td>
</tr>
</tbody>
</table>

Table 15 indicates the participants’ responses as to how collaborative specialization impacted student results in achievement, behavior, attendance, and other areas of student growth and behavior. One hundred percent of the participants stated this model of instruction had a positive impact on their students in one way or another. Sixty percent of the teachers surveyed noticed an improvement with student behavior. Although participants stated there were improvements, 40% mentioned there was no impact on student attendance. Another concern (40%) that emerged was the number of times students were being pulled from class during the day and the negative effect this was having on student achievement. Math ePAT, which is an electronic version of the mathematics test given for the first time, was reported by one participant (20%) as having an impact on student achievement. This teacher believed that scores may be affected since students are accustomed to taking math tests using paper and pencil. One
participant (20%) also reported that they were concerned with their partner scores and how that would affect them and their evaluation.

Table 15

Participants' Response Pattern to Question 4

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive/ pleased</td>
<td>5 (100%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>2</td>
<td>Concerned about partners scores</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>Pull-out</td>
<td>2 (40%)</td>
<td>D, F</td>
</tr>
<tr>
<td>4</td>
<td>Math- EPATS</td>
<td>1 (20%)</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>Attendance- no impact</td>
<td>2 (40%)</td>
<td>D, F</td>
</tr>
<tr>
<td>6</td>
<td>Behavior improved/ less referrals</td>
<td>3 (60%)</td>
<td>A, D, F</td>
</tr>
</tbody>
</table>

Survey question five of the end-of-the-year survey asked if the participants enjoyed their experience using the collaborative specialization model of instruction. One hundred percent of the participants stated they enjoyed their experience with this model of instruction (see Table 16). Additionally, all participants stated their lessons were more rigorous and focused. Furthermore, 60% of the surveyed participants stated they enjoyed teaching. Sixty percent of the teachers also stated the experience of collaborative specialization was positive. Two participants stated that having fewer subjects made it more possible to cover all the standards since they had the allotted time. One participant stated that communication with parents was easier since they had their partner for support and to help translate communications with ELL students and their parents or guardians.
Table 16

Participants' Response Pattern to Question 5

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>5 (100%)</td>
<td>A, B, C, D, F</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Communication with parents was easier/ partner assistance</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
<tr>
<td>4</td>
<td>Subjects were approachable/ time</td>
<td>2 (40%)</td>
<td>B, D</td>
</tr>
<tr>
<td>5</td>
<td>Easier/ Positive</td>
<td>3 (60%)</td>
<td>B, C, D</td>
</tr>
<tr>
<td>6</td>
<td>Enjoyed teaching</td>
<td>3 (60%)</td>
<td>A, C, F</td>
</tr>
<tr>
<td>7</td>
<td>Rigorous lessons/ focus</td>
<td>5 (100%)</td>
<td>A, B, C, D, F</td>
</tr>
</tbody>
</table>

Survey question 6 asked teachers if they were starting this program, what would they have done differently, and had four common responses. The most frequent response was Progressbook; 60% of the teachers surveyed stated they wished Progressbook was setup differently so they would be able to make comments on their students’ progress and not just their homeroom students (see Table 17). Another common response among 40% of the surveyed participants was they would like to continue the departmental model, but to teach only one subject, like secondary schools. An interesting suggestion was mentioned. Twenty percent of the participants stated they would have liked the classrooms to be ability grouped so they could further target specific needs of students instead of balancing 21 different needs. Lastly, one participant (20%) suggested that partner teachers should plan together in regards to their student needs so they would be able to learn more about the child as a whole.

Table 17
Participants' Response Pattern to Question 6

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Progressbook</td>
<td>3 (60%)</td>
<td>A, D, F</td>
</tr>
<tr>
<td>2</td>
<td>Departmentalize further</td>
<td>2 (40%)</td>
<td>B, C</td>
</tr>
<tr>
<td>3</td>
<td>Partner planning</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
<tr>
<td>4</td>
<td>Ability group</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
</tbody>
</table>

In response to survey question seven on the end-of-the-year survey, I asked participants to recommend trainings they believed would help prepare teachers for this model of instruction. Forty percent of the teachers said none (see Table 18). However, another 40% stated that they should attend trainings to specialize in their subject. Lastly, 20% responded that teachers would benefit from attending trainings on collaboration/communication and another 20% stated that teachers would benefit from attending trainings on trusting, since it is important to trust their partner teacher.

Table 18

Participants' Response Pattern to Question 7

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
<td>2 (40%)</td>
<td>A, D</td>
</tr>
<tr>
<td>2</td>
<td>Collaboration/communication</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>Specialization in subject being taught</td>
<td>2 (40%)</td>
<td>C, F</td>
</tr>
<tr>
<td>5</td>
<td>Trust</td>
<td>1 (20%)</td>
<td>B</td>
</tr>
</tbody>
</table>
The responses here seem to be the same as some noted in Table 18. Table 19, survey question 8, indicates what trainings teachers would like to have moving forward with this model of instruction. Forty percent of the teachers replied they would like to be trained in their specific subject so they could truly be specialized in their area of expertise. Another 40% indicated none, while 20% acknowledged they would like to attend trainings about differentiated instruction.

Table 19

Participants' Response Pattern to Question 8

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Code Description</th>
<th>Number of Participants who reported this</th>
<th>Which participants reported this</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Differentiated instruction</td>
<td>1 (20%)</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>None</td>
<td>2 (40%)</td>
<td>A, D</td>
</tr>
<tr>
<td>3</td>
<td>Subject specific trainings</td>
<td>2 (40%)</td>
<td>B, F</td>
</tr>
</tbody>
</table>

Interviews

Two participants took part in a brief 20-30 minute one-on-one interview to answer the questions found in Appendix A. Interviews were very helpful in clarifying survey responses. I was able to gain a deeper understanding of the collaborative specialization model and the aspects of what the interviewees found to have worked and what issues still need to be addressed. The following questions were asked during the interview.

1. How interested/willing were you in teaching this year using the collaborative specialization model?
2. Were you comfortable with your assignment in terms of content area, grade level, and interests? If not, why not?

3. Do you think this impacted your performance and why?

4. How important is collaboration to building trust and enhancing instruction for students?

5. Do you feel that collaborative specialization would be beneficial for all intermediate grade levels (3rd-5th)? If so, why?

Throughout the interviews, there were many common themes shared by both interviewees. Both Ms. Reading and Ms. Math (aliases) expressed similar views. When asked, “How interested/willing were you in teaching this year using the collaborative specialization model?” Ms. Reading said,

I was very interested in teaching only two subjects this year. It allowed me more time to dive deeper into the standards with my students. I felt I was able to make lessons more enjoyable since I had the time to focus on only two subjects.

Both interviews stated that they enjoyed this model of instruction and that their lessons had become more rigorous and focused on what their students needed.

Interview question 2, “Were you comfortable with your assignment in terms of content area, grade level, and interests? If not, why not?” Both interviewees showed similar themes. Both Ms. Math and Ms. Reading stated that they felt comfortable with their assignments. They both stated that they were happy that they didn’t have to teach a subject that they were not confident in. Both loved the fact that they were able to teach a subject that they were specialized in. Ms. Math was hoping that “we would take this one
step further and fully departmenatalize, that way we would all be able to teach what we are passionate about. I love teaching math.”

In interview question 3, I asked participants, “Do you think this impacted your performance and why?” They explained that they could see the benefits for students and as well as for teachers in using the Collaborative Specialization Model of instruction. They had a better understanding of the standards that they were teaching and were able to have more time to plan and reflect. Ms. Reading stated it best,

I felt this year was one of my best teaching years, so yes, I believe this form of departmentalization did help my performance. Like I said, I had time to go deeper into standards because I had the time to plan and come up with different lessons. The biggest thing this year was that I was given the gift of time because I didn’t have to plan for five subject areas.

In addition, both interviewees expressed the concern that arose with the use of pull-out program and the collaborative specialization model. Ms. Math stated,

Many of my students are two or more grade levels below in math and have not mastered their facts in adding, subtracting, multiplying, and division, but are pulled from math instruction to supplement their reading. All because they scored a level one or two on FCAT and could not be removed from their reading block. This in itself hinders my students’ performance in math and science.

The teachers also mentioned that they were able to differentiate their lessons (be more student specific), incorporate more activities into lessons, and have more time to focus on small group instruction than previously.
Question 4, “How important is collaboration to building trust and enhancing instruction for students?” Both participants thought that trust between partnerships and team was very important for enhancing instruction for students. Ms. Reading stated,

I was blessed to have one of the greatest partners and felt that we were able to collaborate with each other when it came to sharing the same students. On the other hand, we (the reading teachers) also were able to collaborate on lessons and planning together so that helped out all our students.

Ms. Math also shared the same thoughts when it came to her math team. She believed that open conversations and sharing ideas and thoughts during planning helped them when it came time to plan for student instruction. Both teachers believed that the collaborative environment helped them grow as teachers.

In interview question 5, I asked, “Do you feel that collaborative specialization would be beneficial for all intermediate grade levels (3rd-5th)? If so, why?” Both Ms. Reading and Ms. Math explained that they felt collaborative specialization should be implemented at all intermediate grade levels because not only would teachers love only focusing on two subjects, but the students would benefit in the lessons that their teachers would be creating because they would have the time to do it well.

**Student Referrals**

Table 20 shows the list of disciplinary referrals for students in the fifth grade during a 4 year period. As shown in the table, the number of referrals declined drastically during the 2012-2013 school year; the first year collaborative specialization was implemented.
Student referrals also differ based on severity. Levels I are minor acts of misconduct while a Level IV is the highest act of misconduct and results in a higher level of punishment (Code of Student Conduct, 2012).

“Level I offenses are minor acts of misconduct that interfere with the orderly operation of the classroom, a school function, extracurricular/co-curricular program or approved transportation. Level II offenses are intermediate acts of misconduct and are more serious or disruptive examples of the offenses in Level I. Level II also includes repeated acts of misconduct from Level I and acts directed against people or property that do not seriously endanger the health or safety of others. Level III infractions are major acts of misconduct. They include repeated misconduct acts from Level II; serious disruptions of school order; threats to the health, safety, and property of others; and other acts of serious misconduct. Level IV acts of misconduct are the most serious. Any Level IV act is grounds for expulsion and will result in a mandatory 10-day suspension with consideration for a recommendation for expulsion” (Student Code of Conduct, 2012, pp. 12-16).
Table 20

*Level of Fifth Grade Student Behavior Offenses*

<table>
<thead>
<tr>
<th>School Year</th>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
<th>LEVEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>2011-2012</td>
<td>2</td>
<td>16</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>2010-2011</td>
<td>2</td>
<td>11</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>2009-2010</td>
<td>1</td>
<td>8</td>
<td>17</td>
<td>1</td>
</tr>
</tbody>
</table>

**Observations**

I conducted observations during the second nine weeks of the school year to analyze student engagement and level of teacher instruction. The level of instruction during classroom walk-throughs was very interesting. I had the opportunity to conduct 4 observations that lasted 15 to 20 minutes. These observations revealed some impressive data. I conducted two observations in a reading/social studies classroom and the other two in a math/science classroom. Classroom teachers were aware of the visitation but unaware of the specific day. Therefore I was able to see their performance without preparation. Table 21 shows the information I gathered during the informal visits.
The data presented show the number of students I observed across 4 classrooms that were engaged during the lesson. Table 21 shows that students, for the most part, were engaged adequately or extensively in the lesson. Signs of engagement would include students actively participating, asking questions, working cooperatively with their group, etc. To be precise, 90% of the total students were actively engaged in what was being taught. When examining the total number of students who were demonstrating a clear understanding of the lesson being taught, I was amazed to see the students using their learning scale to identify where on the scale they fell. For example, when observing a math class, the teacher had the learning goal “Students will be able to add/subtract fractions with unlike denominators.” The students’ scales ranged from one through four, where four indicated the ability to teach it to a friend. Below is a copy of the scale:

1- With help, I can list all the common multiples of two denominators.

2- I can find the least common denominator of two fractions, but I cannot write their equivalent fractions in order to solve the problem.
3- I can evaluate how to add/subtract fractions with unlike denominators and simply the fraction when applicable.

4- I can apply all strategies (models, computational strategies, and using a number line) when solving real world problems involving the addition/subtraction of fractions with unlike denominators.

Students used the scale to measure their level of knowledge of the content taught. Other teachers used exit slips to see where their students’ understanding was for the day. Additionally, as I walked around, I was able to document where the students rated themselves. If a student ranked himself at a one, then there was limited to no learning that took place because the student required additional one-on-one support to understand. When a student ranked himself at a two, he was at the minimal learning rank. Using that information, I was able to analyze the data and see that approximately 13% of the students did not comprehend what was being taught.

**Teacher Observations**

I conducted 3 teacher observations during the third 9 weeks of school in 2 reading/social studies classrooms and in 1 math/science classrooms. I observed teachers only once and they only knew I would be visiting classrooms during the implementation of the collaborative specialization model of instruction. However, they did not know the exact day I would be conducting the walkthroughs. Each observation lasted about 15 to 20 minutes. During the classroom walkthroughs, I used the Marzano Framework-Teacher Observation Rubric to evaluate the teachers (Appendix G). I ranked teachers on a scale of not using, beginning, developing, applying, and innovating.
The first teacher I visited was Ms. Reading, a reading and social studies teacher. Upon entering, I noticed she had her reading and social studies scales displayed as well as her learning goal. Students were reviewing what they had learned the day before, which was the skill of comparing and contrasting. After that, Ms. Reading had her students get into groups and complete an activity that reviewed that same concept.

Using the Marzano Framework, I was able to evaluate Ms. Reading on element 14 (reviewing content). I was able to observe her use the strategy of summarization with her students and saw that her students were recalling information. On element 14, I rated Ms. Reading at the applying level as she was engaging her students in a brief review of the content and was monitoring the extent to which her students can recall and describe previous content.

I was also able to observe element 15, organizing students to practice and deepen knowledge, while in Ms. Reading’s class. Students were in small groups working cooperatively, asking each other questions, and interacting with the activity presented to them to complete in order to deepen their knowledge. I rated Ms. Reading at the applying level for this element as she was circulating the room and monitoring her students and providing guiding questions and assistance when required. Table 22 is my evaluation sheet for Ms. Reading.
Table 22

*Evaluation Sheet for Ms. Reading*

**DQ3: Helping Students Practice and Deepen New Knowledge**

**Element #14. Reviewing Content**
The teacher engages students in a brief review of content that highlights the critical information.

**Teacher Evidence**
- ✔ Teacher begins the lesson with a brief review of content
- ✔ Teacher uses specific strategies to review information
  - Summary
  - Problem that must be solved using previous information
  - Questions that require a review of content
  - Demonstration
  - Brief practice test or exercise

**Student Evidence**
- ☐ When asked, students can describe the previous content on which new lesson is based
- ✔ Student responses to class activities indicate that they recall previous content

**Scale Levels: (choose one)**
- ☐ Innovating  ✔ Applying  ☐ Developing  ☐ Beginning  ☐ Not Using  ☐ Not Applicable

**Scale**

<table>
<thead>
<tr>
<th></th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reviewing content</strong></td>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>Engages students in a brief review of content that highlights the critical information and monitors the extent to which students can recall and describe previous content.</td>
<td>Engages students in a brief review of content that highlights the critical information.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
</tr>
</tbody>
</table>
**DQ3: Helping Students Practice and Deepen New Knowledge**

<table>
<thead>
<tr>
<th>Element #15. Organizing Students to Practice and Deepen Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher uses grouping in ways that facilitate practicing and deepening knowledge.</td>
</tr>
</tbody>
</table>

**Teacher Evidence**
- Teacher organizes students into groups with the expressed idea of deepening their knowledge of informational content
- Teacher organizes students into groups with the expressed idea of practicing a skill, strategy, or process

**Student Evidence**
- When asked, students explain how the group work supports their learning
- While in groups students interact in explicit ways to deepen their knowledge of informational content or, practice a skill, strategy, or process
  - Asking each other questions
  - Obtaining feedback from their peers

**Scale Levels:** *(choose one)*
- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

**Scale**

<table>
<thead>
<tr>
<th><strong>Organizing students to practice and Deepen knowledge</strong></th>
<th><strong>Innovating</strong></th>
<th><strong>Applying</strong></th>
<th><strong>Developing</strong></th>
<th><strong>Beginning</strong></th>
<th><strong>Not Using</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>Organizes students into groups to practice and deepen their knowledge and monitors the extent to which the group work extends their learning.</td>
<td>Organizes students into groups to practice and deepen their knowledge.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
The second teacher I did a classroom walkthrough for was another reading and social studies teacher. The teacher was completing a review of the students’ homework from the previous night. The skill the students were working on was text structure, more specifically, similarities and differences within different stories. As a result, I was able to use the rubric for element #17 and check off that the teacher was engaging students in an activity that required the students to examine similarities and differences. The teacher asked the students to create a double bubble with similarities and differences between the two stories they had read in class. However, I rated this teacher at the developing level as she did not monitor what her students were doing. Table 23 shows my evaluation of the teachers’ performance.
Table 23

*Evaluation of Teachers' Performances*

**DQ3: Helping Students Practice and Deepen New Knowledge**

<table>
<thead>
<tr>
<th>Element #17. Examining Similarities and Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the content is informational, the teacher helps students deepen their knowledge by examining similarities and differences.</td>
</tr>
</tbody>
</table>

**Teacher Evidence**

☑ Teacher engages students in activities that require students to examine similarities and differences between content

- Comparison activities
- Classifying activities

☐ Teacher facilitates the use of these activities to help students deepen their understanding of content

- Ask students to summarize what they have learned from the activity
- Ask students to explain how the activity has added to their understanding

**Student Evidence**

☑ Student artifacts indicate that their knowledge has been extended as a result of the activity

☐ When asked about the activity, student responses indicate that they have deepened their understanding

☐ When asked, students can explain similarities and differences

☐ Student artifacts indicate that they can identify similarities and differences

**Scale Levels:** *(choose one)*

☐ Innovating ☑ Applying ☐ Developing ☐ Beginning ☐ Not Using ☐ Not Applicable

<table>
<thead>
<tr>
<th>Scale</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examining similarities and differences</strong></td>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>When content is informational, engages students in activities that require them to examine similarities and differences, and monitors the extent to which the students are deepening their knowledge.</td>
<td>When content is informational, engages students in activities that require them to examine similarities and differences.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
</tr>
</tbody>
</table>
The third teacher I visited was a math and science teacher. When I walked in, she was practicing fractions with the students and once she finished, she said, “We are now going to do my favorite no.” My favorite no is when a teacher picks her favorite wrong answer and works it out with the students to examine students’ errors and related reasoning, while not identifying which student was chosen as the teacher rewrites the student’s work. She assigned the students one problem and was walking around to assist students who were struggling. After a few minutes, she collected the work from her students and copied two of them down and displayed one at a time on the document camera. Students then were asked to examine the work and see if something was wrong. Students quickly raised their hands and started providing clarifications. After that, she wrote another problem on the board and had the students work on it. Below is my observation using the Marzano teacher evaluation form, Table 24.
Table 24

*Marzano Teacher Evaluation Form*

**DQ3: Helping Students Practice and Deepen New Knowledge**

<table>
<thead>
<tr>
<th>18. Examining Errors in Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the content is informational, the teacher helps students deepen their knowledge by examining their own reasoning or the logic of the information as presented to them.</td>
</tr>
</tbody>
</table>

**Teacher Evidence**

- Teacher asks students to examine information for errors or informal fallacies
  - Faulty logic
  - Attacks
  - Weak reference
  - Misinformation

- Teacher asks students to examine the strength of support presented for a claim
  - Statement for a clear claim
  - Evidence for the claim presented
  - Qualifiers presented showing exceptions to the claim

**Student Evidence**

- When asked, student can describe errors or informal fallacies in information
- When asked, students can explain the overall structure of an argument presented to support a claim
- Student artifacts indicate that they can identify errors in reasoning

**Scale Levels:** *(choose one)*

- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

<table>
<thead>
<tr>
<th>Scale</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examining errors in reading</strong></td>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>When content is informational, engages students in activities that require them to examine their own reasoning or the logic of information as presented to them and monitors the extent to which students are deepening their knowledge.</td>
<td>When content is informational, engages students in activities that require them to examine their own reasoning or the logic of information as presented to them.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
</tr>
</tbody>
</table>
### 19. Practicing Skills, Strategies, and Processes
When the content involves a skill, strategy, or process, the teacher engages students in practice activities that help them develop fluency.

#### Teacher Evidence
- Teacher engages students in massed and distributed practice activities that are appropriate to their current ability to execute a skill, strategy, or process
  - Guided practice if students cannot perform the skill, strategy, or process independently
  - Independent practice if students can perform the skill, strategy, or process independently

#### Student Evidence
- Students perform the skill, strategy, or process with increased confidence
- Students perform the skill, strategy, or process with increased competence

#### Scale Levels: *(choose one)*
- Innovating ✓ Applying □ Developing □ Beginning □ Not Using □ Not Applicable

#### Scale

<table>
<thead>
<tr>
<th>Practicing skills, strategies, and processes</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>When content involves a skill, strategy, or process, engages students in practice activities and monitors the extent to which the practice is increasing student fluency.</td>
<td>When content involves a skill, strategy, or process, engages students in practice activities.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
Edusoft

Our school district administered the Edusoft testing during the fall and winter. In addition, we assessed our students with a five question mini-assessment after an intense week or two week period of instruction. After analyzing Table 25, it is clear to see that students in reading were outperforming the students from the prior year. Benchmark LA.5.1.7.3 requires students to determine the main idea or essential message in the grade-level text through inferring, paraphrasing, summarizing, and identifying relevant details (CPALMS, 2012). Students usually have a difficult time finding the main idea of a passage; however, during the 2012-13 school year, the percentage of students who were able to identify correctly the main idea of a passage increased by 9%.

Table 25

Student Reading Benchmark Scores

<table>
<thead>
<tr>
<th></th>
<th>LA.5.1.6.7</th>
<th>LA.5.1.6.9</th>
<th>LA.5.1.7.2</th>
<th>LA.5.1.7.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Win.</td>
<td>Fall Win.</td>
<td>Fall Win.</td>
<td>Fall Win.</td>
<td>Fall Win.</td>
</tr>
<tr>
<td>2011-2012</td>
<td>61 63</td>
<td>58 67</td>
<td>72 55</td>
<td>67 48</td>
</tr>
<tr>
<td>2012-2013</td>
<td>65 70</td>
<td>63 72</td>
<td>78 59</td>
<td>74 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>LA.5.1.7.5</th>
<th>LA.5.1.7.7</th>
<th>LA.5.2.1.2</th>
<th>LA.5.6.1.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Win.</td>
<td>Fall Win.</td>
<td>Fall Win.</td>
<td>Fall Win.</td>
<td>Fall Win.</td>
</tr>
<tr>
<td>2011-2012</td>
<td>37 55</td>
<td>79 69</td>
<td>86 N/A</td>
<td>53 71</td>
</tr>
<tr>
<td>2012-2013</td>
<td>37 54</td>
<td>80 69</td>
<td>87 58</td>
<td>62 70</td>
</tr>
</tbody>
</table>

Note. See Appendix J for further explanation on each reading benchmark.

In regards to math, Table 26 indicates the areas where students made learning gains compared to the previous year students. MA.5.A.2.4 (math benchmark), which requires students to determine the prime factorization of numbers, increased by 6%. Additionally, benchmark MA.5.G.5.2, which has students compare, contrast, and convert
units of measure within the same dimension (length, mass, or time) to solve problems, increased by almost 7%. It also requires students to compare, contrast, and convert units of measure within the same dimension (length, mass, or time) to solve problems.

Table 26

**Student Math Benchmark Scores**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
</tr>
<tr>
<td>2011-2012</td>
<td>43.88</td>
<td>58.13</td>
<td>61</td>
<td>47.25</td>
<td>43.25</td>
<td>69.59</td>
<td>47.5</td>
<td>32.13</td>
<td>74</td>
<td>29.63</td>
<td>61.63</td>
<td>74</td>
</tr>
<tr>
<td>2012-2013</td>
<td>44.25</td>
<td>60.44</td>
<td>56.5</td>
<td>53</td>
<td>44.39</td>
<td>68.5</td>
<td>49.25</td>
<td>29.36</td>
<td>73</td>
<td>35.5</td>
<td>68.93</td>
<td>79.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
</tr>
<tr>
<td>2011-2012</td>
<td>NA</td>
<td>57.13</td>
<td>42.75</td>
<td>37</td>
<td>70.88</td>
<td>32.13</td>
<td>42.63</td>
<td>79.27</td>
<td>34.63</td>
<td>45.5</td>
<td>77.49</td>
<td></td>
</tr>
<tr>
<td>2012-2013</td>
<td>37.13</td>
<td>80</td>
<td>46.75</td>
<td>39.25</td>
<td>65.67</td>
<td>25</td>
<td>45</td>
<td>76.25</td>
<td>33</td>
<td>49.5</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
<td>Win.</td>
<td>Mini</td>
<td>Fall</td>
</tr>
<tr>
<td>2011-2012</td>
<td>35.13</td>
<td>48.25</td>
<td>54.38</td>
<td>52.75</td>
<td>65.75</td>
<td>82.05</td>
<td>NA</td>
<td>45.13</td>
<td>64.78</td>
<td>NA</td>
<td>52.5</td>
<td>54.18</td>
</tr>
<tr>
<td>2012-2013</td>
<td>35.75</td>
<td>41.5</td>
<td>51</td>
<td>39.25</td>
<td>75.5</td>
<td>86</td>
<td>NA</td>
<td>56.75</td>
<td>71.75</td>
<td>NA</td>
<td>52.75</td>
<td>72.75</td>
</tr>
</tbody>
</table>

**Note.** *See Appendix K for further explanation on each math benchmark.*

Table 27 shows the overall Edusoft data for fifth grade reading, math, and science as compared from 2011 to 2012. The scores for the 2012-13 year are listed under Fall and Winter. The numbers under 2011 indicate the change from the 2011 to the 2012 school year. The data shows that overall there was an 8% or greater growth from one year to the next in math and reading.
Table 27

**Overall Edusoft Data**

<table>
<thead>
<tr>
<th>2012-2013 Edusoft Data</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>5th Grade- Reading</th>
<th>5th Grade- Math</th>
<th>5th Grade- Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2011</td>
<td>Winter 2011</td>
<td>Fall 2011</td>
</tr>
<tr>
<td>#</td>
<td>% Change</td>
<td>#</td>
</tr>
<tr>
<td>Overall</td>
<td>168</td>
<td>64%</td>
</tr>
<tr>
<td>Low 30%</td>
<td>47</td>
<td>-26%</td>
</tr>
<tr>
<td>Top 30%</td>
<td>56</td>
<td>95%</td>
</tr>
<tr>
<td>ESE</td>
<td>7</td>
<td>29%</td>
</tr>
<tr>
<td>LEP</td>
<td>75</td>
<td>61%</td>
</tr>
<tr>
<td>Retained</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Econ. Dis.</td>
<td>123</td>
<td>60%</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>73%</td>
</tr>
<tr>
<td>Male</td>
<td>98</td>
<td>58%</td>
</tr>
<tr>
<td>Al or AN</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Asian</td>
<td>14</td>
<td>71%</td>
</tr>
<tr>
<td>Black or AA</td>
<td>23</td>
<td>52%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>86</td>
<td>63%</td>
</tr>
<tr>
<td>Two + Races</td>
<td>3</td>
<td>67%</td>
</tr>
<tr>
<td>White</td>
<td>41</td>
<td>73%</td>
</tr>
</tbody>
</table>

Green indicates a growth in performance from 2011 to 2012 Edusoft
Red indicates a decrease in performance from 2011 to 2012 Edusoft
White indicates no change in performance from 2011 to 2012 Edusoft
Yellow indicated we do not have the data from 2011 to 2012 Edusoft

**FCAT. 2.0**

The school administered the FCAT 2.0 during the month of April. During the 2012-2013 school year, the schedule for administrating the test was different because the mathematical portion of the test had to be given on the computer using a system called Electronic Practice Assessment Tools (ePat). As a result, reading was given first, followed by science and then math. I analyzed the FCAT 2.0 scores and the results of the students in 5th grade at BME are displayed in Table 28.
Table 28

*FCAT 2.0 BME 5th Grade Student Results for 2009-2013*

<table>
<thead>
<tr>
<th>BME</th>
<th>History of Students Meeting High Standards</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5th Grade</td>
<td>69</td>
<td>63</td>
</tr>
</tbody>
</table>

The data show that students meeting high standards in reading increased by 10% in 2012-13. This is a significant accomplishment for the fifth grade team. As seen in Table 8.0, the reading scores have been diminishing since 2009. Another area to celebrate success is in the content of science. Science scores increased by 14% in 2012-13. However, students meeting high expectations in math declined by 5%. But, there are other factors that may have influenced this decline. First, the math portion of the test was computerized as opposed to the normal paper and pencil tests students were accustomed to taking. Secondly, students who had scored a level one or two in reading the previous year on FCAT were being pulled for intensive reading classes during math and science time. Therefore, they missed essential parts of material that were tested.

**Interpretation**

After careful analysis of the data I collected, it is clear that collaborative specialization received a positive reaction towards its implementation. Teachers accepted this new program with open minds and stated how much easier it was to plan and collaborate with fellow teachers in their department. In addition, the time it took for planning lessons allowed departments to create lessons for students in greater depth and
with more rigor than previously. Students moved more frequently within the classroom and communicated openly about content being learned.

Behavior problems declined dramatically and I believe the decline can be attributed to more effective instructional plans and strategies. According to the referral table, Table 4.0, the number of level II and level III infractions decreased. Level II infractions declined by more than eleven occurrences, while Level III infractions declined by nine instances.
SECTION FIVE: JUDGMENT & RECOMMENDATIONS

Judgment

The primary question driving this study was: What effect did the collaborative specialization model have on student achievement and student behavior? The secondary questions include: What effect did collaborative specialization have on teachers covering standards in more depth using this model of instruction? What effect did collaborative specialization have on the rigor level of the assignments being given and the instruction being taught? and What effect did collaboration specialization have on teachers planning with their department and teams?

The effect the collaborative specialization model had on student achievement and student discipline overall was positive. Teachers reported that student behavior had improved and their lessons were more in-depth as they had fewer subjects to focus on. All participants were pleased with the implementation of the model. The data collected from the FCAT indicated collaborative specialization had a positive impact on reading and science. Students who scored at a level three or above increased in reading by 10% and science scores increased by 14%. However, results for math are yet to be determined. Since the mathematical assessment was given using ePAT, which is an electronic version of the mathematics test, it is difficult to determine whether that influenced the percent of students who met high expectations with a level three or above. Previously, students took the math portion of the FCAT using a paper and pencil assessment. Therefore, this transition from paper and pencil to computer might have had an impact on how students performed since they did not have much practice using the system. Additionally, teachers reported their students missing approximately 150
minutes per week for math instruction as result of the intensive reading program instructional needs. Both the transition from paper based testing to computer based testing and the pull-out program need to be taken into account when viewing the 4% decline in the mathematical portion of the FCAT.

It was evident that there was a positive effect on teachers covering standards in more depth using the collaborative specialization model of instruction. Teachers also reported they had not only more time to plan by focusing on fewer subjects, but also created better plans by being able to plan lessons with their departments and or teams. I observed departments meeting regularly to plan units and discuss different activities they would like to do in their classes. In addition, teachers reported they were able to focus on standards closely and had the time to deconstruct the benchmarks to meet the needs of their students. Teachers also reported they had time to learn more about their teaching area and were able to teach concepts and skills in greater depth.

What effect did collaborative specialization have on the rigor level of the assignments being given and the instruction being taught? Based on my classroom observations, the teachers demonstrated more in-depth assignments. While conducting walk-throughs, I was able to monitor student engagement and a high level of rigor in the instructions. The teachers reported, as well as were observed, to teach more in-depth lessons than before implementation of collaborative specialization due to having more time to focus on fewer subjects.

What effect did collaboration specialization have on teachers planning with their department and teams? The collaborative specialization model of instruction allowed teachers to plan more effectively because departments were smaller. I observed that the
meetings were focused on the rigor of the lesson as well as the needs of students. Moreover, I was able to observe teachers planning lessons together, sharing ideas, deconstructing benchmarks, and utilizing different resources to provide students with the enrichment activities or remediation needed.

**Recommendations**

After completing the first year of this program, I hope that all 5th grade students at BME are continuing to make academic gains and that teacher instruction is at a deeper level. After analyzing and reviewing all the data collected during this process, I can say that teacher instruction in the 5th grade has improved noticeably and as a result student achievement has gone up. All of the six participants who took part in this study did emphasize that their teaching improved and that they have seen students more engaged.

Even though there were some challenges that were faced with the implementation of the collaborative specialization model, not one teacher would go back to the traditional model of instruction. Math teachers saw the biggest challenge with the implementation of this model since students were being pulled out of math instruction to receive additional reading support. Some teachers indicated the intensive reading instruction pull out program caused their students to miss 150 minutes of math instruction each week. As a result, the math teachers had to deal with students missing part of their class to receive remedial reading instruction. While I recognize this can be a complicated scheduling problem, it must be addressed. One possible solution might be to share the pullout time with other classes or perhaps have an extended day program for intensive reading – either before or after school.
Although not all students made academic gains, the percent of students who did meet high standards increased significantly. All teachers expressed great interest in the program and were particularly pleased with having more time to plan. Additionally, teachers stated that they were able to plan more rigorous and relevant experiences for their students. All teachers expressed that they were able to include more engaging learning experiences for students and they appeared to demonstrate more understanding of the concepts being taught. Therefore, it is my recommendation that all elementary schools consider implementing this new program into their intermediate grade levels and that the districts consider adopting a policy with guiding principles for implementing some form of departmentalization in the intermediate grades based on my study results.

**Conclusion**

This study involved numerous challenges. One was the need to gain permission and support for the use of collaborative specialization and departmentalization. I had two different principals and assistant principals that had to deal with my requests and go the extra mile in helping me get it done. I was not able to give all teachers’ choices of what they might teach or their choice of partner as originally planned. The key leadership lessons I learned throughout this process are when making decisions one must consider what is best for the students before anything else and leaders must be aware that when making changes or decisions that impact people, there always will be those who resist that change or do not support it. Throughout this process, I have learned the important role research plays in decision making and the importance of engaging people impacted by major decisions regarding change in the change process.
The overall experience has been eye opening not only for me but also for all involved in this process. As a researcher, it is important to keep all bias aside and stick to the facts. Reviewing my data demonstrated that my departmentalization model of instruction has had a positive impact on the fifth grade students at BME. Collaborative specialization as a form of departmentalization is a new program that I believe has great promise for my school, district, and other schools and districts throughout Florida and the Nation.
REFERENCES


dl/Code%20of%20Conduct.pdf


Appendix A: Interview Protocol for Teachers and Administrators

Background information on interviewee:
Date:
Name (alias):
Job title/content areas teaching:

General questions to fifth grade teachers:
1. How interested/willing were you in teaching this year using the collaborative specialization model?
2. Were you comfortable with your assignment in terms of content area, grade level, and interests? If not, why not?
3. Do you think this impacted your performance and why?
4. How important is collaboration to building trust and enhancing instruction for students?
5. Do you feel that collaborative specialization would be beneficial for all intermediate grade levels (3rd-5th)? If so, why?

General questions to fifth grade administrators:
1. Have any concerns you may have had going into this program been resolved as a result of this year long experience?
2. Would you change the process of the development of collaborative teams based on this experience?
3. What were the major issues that arouse? How did you overcome them?
4. What recommending would you make regarding this model of instruction to other elementary schools in the district, state, or nation who might be considering such a change?
Appendix B: Beginning of Year Teacher Surveys

Dear fifth grade team,

As you may be aware, I am a current graduate student at National-Louis University, completing my doctoral degree in educational leadership. As part of my dissertation, I would like to survey you using the following questions in order to assess the impact of collaborative specialization. Please be as specific and detailed as possible. Thank you for taking the time out of your busy day.

**Beginning of the Year- Survey of Collaborative Specialization**

What content areas do you teach? __________________________

1. How do you feel about collaborative specialization?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. What are at least two major concerns you are having coming into this new program?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3. What could be done to address the above stated concerns?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
4. Have you had any preparation activities in participation for this experience? If so, which one was the most helpful and why?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

5. If you have not had any preparation what preparation do you think you need?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you for participating in my study. I truly appreciate your input. Please feel free to contact me if you have any questions or concerns.

Miss Nicole Villaverde
Appendix C: Mid-Year Teacher Surveys

Dear fifth grade team,

Since you are halfway through this experience, I would like to survey you using the following questions, to assess the impact of collaborative specialization. Please remember to be as specific as possible. Thank you for taking your time to participate in my study.

Mid Year- Survey of Collaborative Specialization

What content areas do you teach? ____________________

1. How has your planning changed using the collaborative specialization model? (Please be as specific as possible.)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. What instructional strategies (at least two) have changed as you moved into this new model? How are they different from what you were doing before?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. How has collaborative specialization changed your role as a teacher? (Be specific, list at least two changes.)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
4. What were your most beneficial activities (list at least two) and results (list at least two) to date using this model of instruction?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

5. Is there any special problem you are experiencing? If so, what is it and how have you dealt with it? (Be specific.)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Thank you for participating in my study. I truly appreciate your input. Please feel free to contact me if you have any questions or concerns.

Miss Nicole Villaverde
Appendix D: End of Year Teacher Surveys

Dear fifth grade team,

Now that our first year is completed I would like to survey you using the following questions, to assess the impact of collaborative specialization. Please remember to be as specific as possible. Thank you for taking your time to participate in my study.

End of the Year - Survey of Collaborative Specialization

What content areas do you teach? ___________________________

1. How do you now feel about collaborative specialization?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

2. What was the most positive aspect of making this change for you? Why?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

3. What was the most difficult aspect of making this change for you? Why?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

4. How did collaborative specialization impact student results (achievement, behavior, attendance, etc)?
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
5. Overall did you enjoy your experience using this model of instruction? If so, why? If not, why not?

_____________________________________

_____________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

6. If you were starting this program, what would you have done differently?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

7. What trainings would you recommend to better prepare teachers for this model of instruction?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

8. What trainings would you like to have moving forward?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Thank you for participating in my study. I truly appreciate your input. Please feel free to contact me if you have any questions or concerns.

Miss Nicole Villaverde
Appendix E: Administrator Surveys

Dear administrative team,

As you may be aware, I am a current graduate student at National-Louis University, completing my doctoral degree in educational leadership. As part of my dissertation, I would like to survey your responses to the following questions, in order to assess the impact of collaborative specialization. Please remember to be as specific as possible. Thank you for taking your time to participate in my study.

**Beginning of the Year - Survey of Collaborative Specialization**

1. How do you feel about collaborative specialization?

   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________

2. What are your major concerns coming into this new program? (Please be as specific as possible.)

   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________

3. How might you address these concerns?

   ___________________________________________
   ___________________________________________
   ___________________________________________
   ___________________________________________

Thank you for participating in my study. I truly appreciate your input. Please feel free to contact me if you have any questions or concerns.

Miss Nicole Villaverde
Dear administrative team,

Now that our first year is completed I would like to survey your responses to the following questions, in order to assess the impact of collaborative specialization. Please remember to be as specific as possible. Thank you for taking your time to participate in my study.

End of the Year - Survey of Collaborative Specialization

1. How do you now feel about collaborative specialization?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. What was the most positive aspect of making this change for you?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. What was the most difficult aspect of making this change for you?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. How did collaborative specialization impact student results (achievement, behavior, attendance, etc)?

________________________________________________________________________
________________________________________________________________________
5. What would you have done differently to make this a more positive and effective experience?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

6. If you were starting this program, what would you as the administrator have done differently in planning and implementing this new program?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

7. What trainings would you recommend to better prepare teachers for this model of instruction?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you for participating in my study. I truly appreciate your input. Please feel free to contact me if you have any questions or concerns.

Miss Nicole Villaverde
### Appendix F: Student Observation Rubric

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>Minimally</th>
<th>Adequately</th>
<th>Extensively</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are engaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students are demonstrating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sound understanding of the subject</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>being taught</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students are engaged in higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level thinking skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additionl observations made:**
Appendix G: Teacher Observation Rubric

DQ3: Helping Students Practice and Deepen New Knowledge

<table>
<thead>
<tr>
<th>14. Reviewing Content</th>
</tr>
</thead>
</table>
The teacher engages students in a brief review of content that highlights the critical information.

**Teacher Evidence**
- Teacher begins the lesson with a brief review of content
- Teacher uses specific strategies to review information
  - Summary
  - Problem that must be solved using previous information
  - Questions that require a review of content
  - Demonstration
  - Brief practice test or exercise

**Student Evidence**
- When asked, students can describe the previous content on which new lesson is based
- Student responses to class activities indicate that they recall previous content

**Scale Levels: (choose one)**
- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

**Scale**

<table>
<thead>
<tr>
<th>Reviewing content</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>Engages students in a brief review of content that highlights the critical information and monitors the extent to which students can recall and describe previous content.</td>
<td>Engages students in a brief review of content that highlights the critical information.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
### 15. Organizing Students to Practice and Deepen Knowledge

The teacher uses grouping in ways that facilitate practicing and deepening knowledge.

#### Teacher Evidence

- Teacher organizes students into groups with the expressed idea of deepening their knowledge of informational content
- Teacher organizes students into groups with the expressed idea of practicing a skill, strategy, or process

#### Student Evidence

- When asked, students explain how the group work supports their learning
- While in groups students interact in explicit ways to deepen their knowledge of informational content or, practice a skill, strategy, or process
  - Asking each other questions
  - Obtaining feedback from their peers

#### Scale Levels: (choose one)

- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

#### Scale

<table>
<thead>
<tr>
<th>Organizing students to practice and deepen knowledge</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>Organizes students into groups to practice and deepen their knowledge and monitors the extent to which the group work extends their learning.</td>
<td>Organizes students into groups to practice and deepen their knowledge.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
### DQ3: Helping Students Practice and Deepen New Knowledge

#### 16. Using Homework

When appropriate (as opposed to routinely) the teacher designs homework to deepen students’ knowledge of informational content, or practice a skill strategy, or process.

<table>
<thead>
<tr>
<th>Teacher Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher communicates a clear purpose for homework</td>
</tr>
<tr>
<td>Teacher extends an activity that was begun in class to provide students with more time</td>
</tr>
<tr>
<td>Teacher assigns a well-crafted homework assignment that allows students to practice and deepen their knowledge independently</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>When asked, students can describe how the homework assignment will deepen their understanding of informational content or, help them practice a skill, strategy, or process</td>
</tr>
<tr>
<td>Students ask clarifying questions of the homework that help them understand its purpose</td>
</tr>
</tbody>
</table>

#### Scale Levels:

(choose one)

- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

#### Scale

<table>
<thead>
<tr>
<th>Using homework</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When appropriate (as opposed to routinely) assigns homework that is designed to deepen knowledge of informational content or, practice a skill, strategy, or process and monitors the extent to which students understand the homework.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When appropriate (as opposed to routinely) assigns homework that is designed to deepen knowledge of informational content or, practice a skill, strategy, or process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses strategy incorrectly or with parts missing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategy was called for but not exhibited.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### DQ3: Helping Students Practice and Deepen New Knowledge

<table>
<thead>
<tr>
<th>17. Examining Similarities and Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the content is informational, the teacher helps students deepen their knowledge by examining similarities and differences.</td>
</tr>
</tbody>
</table>

#### Teacher Evidence
- Teacher engages students in activities that require students to examine similarities and differences between content
  - Comparison activities
  - Classifying activities
- Teacher facilitates the use of these activities to help students deepen their understanding of content
  - Ask students to summarize what they have learned from the activity
  - Ask students to explain how the activity has added to their understanding

#### Student Evidence
- Student artifacts indicate that their knowledge has been extended as a result of the activity
- When asked about the activity, student responses indicate that they have deepened their understanding
- When asked, students can explain similarities and differences
- Student artifacts indicate that they can identify similarities and differences

#### Scale Levels: *(choose one)*
- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

### Scale

<table>
<thead>
<tr>
<th>Examining similarities and differences</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>When content is informational, engages students in activities that require them to examine similarities and differences, and monitors the extent to which the students are deepening their knowledge.</td>
<td>When content is informational, engages students in activities that require them to examine similarities and differences.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
DQ3: Helping Students Practice and Deepen New Knowledge

### 18. Examining Errors in Reasoning

When the content is informational, the teacher helps students deepen their knowledge by examining their own reasoning or the logic of the information as presented to them.

<table>
<thead>
<tr>
<th>Teacher Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Teacher asks students to examine information for errors or informal fallacies</td>
</tr>
<tr>
<td>● Faulty logic</td>
</tr>
<tr>
<td>● Attacks</td>
</tr>
<tr>
<td>● Weak reference</td>
</tr>
<tr>
<td>● Misinformation</td>
</tr>
<tr>
<td>□ Teacher asks students to examine the strength of support presented for a claim</td>
</tr>
<tr>
<td>● Statement for a clear claim</td>
</tr>
<tr>
<td>● Evidence for the claim presented</td>
</tr>
<tr>
<td>● Qualifiers presented showing exceptions to the claim</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ When asked, student can describe errors or informal fallacies in information</td>
</tr>
<tr>
<td>□ When asked, students can explain the overall structure of an argument presented to support a claim</td>
</tr>
<tr>
<td>□ Student artifacts indicate that they can identify errors in reasoning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scale Levels:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(choose one)</td>
</tr>
<tr>
<td>□ Innovating</td>
</tr>
<tr>
<td>□ Applying</td>
</tr>
<tr>
<td>□ Developing</td>
</tr>
<tr>
<td>□ Beginning</td>
</tr>
<tr>
<td>□ Not Using</td>
</tr>
<tr>
<td>□ Not Applicable</td>
</tr>
</tbody>
</table>

#### Scale

<table>
<thead>
<tr>
<th>Examining errors in reasoning</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>When content is informational, engages students in activities that require them to examine their own reasoning or the logic of information as presented to them and monitors the extent to which students are deepening their knowledge.</td>
<td>When content is informational, engages students in activities that require them to examine their own reasoning or the logic of information as presented to them.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
### DQ3: Helping Students Practice and Deepen New Knowledge

#### 19. Practicing Skills, Strategies, and Processes
When the content involves a skill, strategy, or process, the teacher engages students in practice activities that help them develop fluency.

<table>
<thead>
<tr>
<th>Teacher Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher engages students in massed and distributed practice activities that are appropriate to their current ability to execute a skill, strategy, or process</td>
</tr>
<tr>
<td>- Guided practice if students cannot perform the skill, strategy, or process independently</td>
</tr>
<tr>
<td>- Independent practice if students can perform the skill, strategy, or process independently</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students perform the skill, strategy, or process with increased confidence</td>
</tr>
<tr>
<td>Students perform the skill, strategy, or process with increased competence</td>
</tr>
</tbody>
</table>

**Scale Levels: (choose one)**
- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

### Scale

<table>
<thead>
<tr>
<th>Practicing skills, strategies, and processes</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>When content involves a skill, strategy, or process, engages students in practice activities and monitors the extent to which the practice is increasing student fluency.</td>
<td>When content involves a skill, strategy, or process, engages students in practice activities.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
DQ3: Helping Students Practice and Deepen New Knowledge

### 20. Revising Knowledge

The teacher engages students in revision of previous knowledge about content addressed in previous lessons.

#### Teacher Evidence

- Teacher asks students to examine previous entries in their academic notebooks or notes
- The teacher engages the whole class in an examination of how the current lesson changed perceptions and understandings of previous content
- Teacher has students explain how their understanding has changed

#### Student Evidence

- Students make connections to information previously recorded about content
- When asked, students can explain previous errors or misconceptions they had about content.

#### Scale Levels: *choose one*

- Innovating
- Applying
- Developing
- Beginning
- Not Using
- Not Applicable

#### Scale

<table>
<thead>
<tr>
<th>Revising knowledge</th>
<th>Innovating</th>
<th>Applying</th>
<th>Developing</th>
<th>Beginning</th>
<th>Not Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique students’ needs and situations.</td>
<td>Engages students in revision of previous content and monitors the extent to which these revisions deepen students’ understanding.</td>
<td>Engages students in revision of previous content.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H: Teacher Informed Consent Form

You are being asked to participate in a research study conducted by Nicole Villaverde, student at National-Louis University (NLU), Tampa, Florida. The study is entitled Impact of Collaborative Specialization on 5th Grade Student Achievement in a Title 1 School. The purpose of this study is to determine if collaborative specialization and teacher specialization increase student achievement. This is a new program being implemented this year at our school to improve the total number of fifth grade students who score at or above proficiency levels on the 2013 reading, math, and science Florida Comprehensive Assessment Test 2.0 (FCAT). I will assess the program effect on this purpose by closely monitoring, observing, examining, and verifying student achievement data and information.

Participants will be participating in a minimum of three surveys that will be completed at the beginning, middle, and end of the research study. The survey will consist of five questions, but may be expanded depending on responses. They will be directly related to the collaborative specialization model and how this organizational structure has impacted your teaching as well as your students’ achievement.

With your consent, you will be observed and interviewed for about 30 minutes with a possible second, follow-up interview lasting 20 minutes. Upon request, you will receive a copy of your abridged transcription of the interview which at that time you may clarify your responses.

Your participation is voluntary and you may discontinue your participation at any time without penalty. Your identity will be kept confidential by the researcher and will not be attached to the data. Only the researcher will have access to all transcripts, taped recordings, video recordings, and field notes from the interview(s). Your participation in this study does not involve any physical or emotional risk to you beyond that of everyday life. While you are likely not to have any direct benefit from being in this study, your taking part in this study may contribute to our better understanding of the effects of collaborative specialization.

While the results of this study may be published or otherwise reported to scientific bodies, your identity will in no way be revealed.

In the event you may have questions or require additional information you may contact the researcher: Nicole Villaverde, National-Louis University doctoral student, phone, 321-297-3496; email, nvillaverde@my.nl.edu; 4950 W. Kennedy Blvd., #300, Tampa, FL 33609.

If you have any concerns or questions before or during participation that you feel have not been addressed by the researcher, you may contact the dissertation chair: Dr. Jim Schott, e-mail, jimua@aol.com; phone, 407-251-8001; 4950 W. Kennedy Blvd., #300, Tampa, FL 33609 or the chair of NLU’s Institutional research Review Board: Dr. Kathleen Sheridan, National-Louis University, 122 South Michigan Avenue, Chicago, Illinois 60603; phone, 312-261-3149; e-mail: Kathleen.sheridan@nl.edu.

Participant Name (Print) ______________________________
Participant Signature ______________________________ Date

Researcher Name (Print) ______________________________
Researcher Signature ______________________________ Date
Appendix I: Administrator Informed Consent Form

You are being asked to participate in a research study conducted by Nicole Villaverde, student at National-Louis University (NLU), Tampa, Florida. The study is entitled Impact of Collaborative Specialization on 5th Grade Student Achievement in a Title 1 School. The purpose of this study is to determine if collaborative specialization and teacher specialization increase student achievement. This is a new program being implemented this year at our school to improve the total number of fifth grade students who score at or above proficiency levels on the 2013 reading, math, and science Florida Comprehensive Assessment Test 2.0 (FCAT). I will assess the program effect on this purpose by closely monitoring, observing, examining, and verifying student achievement data and information.

Participants will be participating in a minimum of two surveys that will be completed at the beginning and end of the research study. The survey will consist of five questions, but may be expanded depending on responses. They will be directly related to the collaborative specialization model and how this organizational structure has impacted student achievement.

With your consent, you will be interviewed for about 40 minutes with a possible second, follow-up interview lasting 30 minutes. Upon request, you will receive a copy of your abridged transcription of the interview which at that time you may clarify your responses.

Your participation is voluntary and you may discontinue your participation at any time without penalty. Your identity will be kept confidential by the researcher and will not be attached to the data. Only the researcher will have access to all transcripts, taped recordings, video recordings, and field notes from the interview(s). Your participation in this study does not involve any physical or emotional risk to you beyond that of everyday life. While you are likely not to have any direct benefit from being in this study, your taking part in this study may contribute to our better understanding of the effects of collaborative specialization.

While the results of this study may be published or otherwise reported to scientific bodies, your identity will in no way be revealed.

In the event you may have questions or require additional information you may contact the researcher: Nicole Villaverde, National-Louis University doctoral student, phone, 321-297-3496; email, nvillaverde@my.nl.edu; 4950 W. Kennedy Blvd., #300, Tampa, FL 33609.

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______________________________
Participant Name (Print)

______________________________
Participant Signature            Date

______________________________
Researcher Name (Print)

______________________________
Researcher Signature            Date

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Appendix J: Reading Benchmark Explanations

LA.5.1.6.7 - use meaning of familiar base words and affixes to determine meanings of unfamiliar complex words;

LA.5.1.6.9 - determine the correct meaning of words with multiple meanings in context;

LA.5.1.7.2 - identify the author's purpose (e.g., to persuade, inform, entertain, explain) and how an author's perspective influences text;

LA.5.1.7.3 - determine the main idea or essential message in grade-level text through inferring, paraphrasing, summarizing, and identifying relevant details;

LA.5.1.7.4 - identify cause-and-effect relationships in text;

LA.5.1.7.5 - identify the text structure an author uses (e.g., comparison/contrast, cause/effect, sequence of events) and explain how it impacts meaning in text;

LA.5.1.7.7 - compare and contrast elements in multiple texts;

LA.5.2.1.2 - locate and analyze the elements of plot structure, including exposition, setting, character development, rising/falling action, problem/resolution, and theme in a variety of fiction;

LA.5.2.1.7 - identify and explain an author's use of descriptive, idiomatic, and figurative language (e.g., personification, similes, metaphors, symbolism), and examine how it is used to describe people, feelings, and objects;

LA.5.6.1.1 - read and interpret informational text and organize the information (e.g., use outlines, timelines, and graphic organizers) from multiple sources for a variety of
purposes (e.g., multi-step directions, problem solving, performing a task, supporting opinions, predictions, and conclusions).
Appendix K: Math Benchmark Explanations

MA.5.A.1.1 - Describe the process of finding quotients involving multi-digit dividends using models, place value, properties and the relationship of division to multiplication.

MA.5.A.1.4 - Divide multi-digit whole numbers fluently, including solving real-world problems, demonstrating understanding of the standard algorithm and checking the reasonableness of results.

MA.5.A.2.1 - Represent addition and subtraction of decimals and fractions with like and unlike denominators using models, place value or properties.

MA.5.A.2.2 - Add and subtract fractions and decimals fluently and verify the reasonableness of results, including in problem situations.

MA.5.A.2.4 - Determine the prime factorization of numbers.

MA.5.A.4.1 - Use the properties of equality to solve numerical and real world situations.

MA.5.A.6.2 - Use the order of operations to simplify expressions which include exponents and parentheses.

MA.5.A.6.4 - Compare, order, and graph integers, including integers shown on a number line.

MA.5.A.6.5 - Solve non-routine problems using various strategies including: solving a simpler problem and guess, check, and revise.

MA.5.G.5.1 - Identify and plot ordered pairs on the first quadrant of the coordinate plane.
MA.5.G.5.2 - Compare, contrast, and convert units of measure within the same
dimension (length, mass, or time) to solve problems.

MA.5.G.5.3 - Solve problems requiring attention to both approximation, selection of
appropriate measuring tools, and precision of measurement.