Hybrid Grouping: The Relationship to Student Learning Outcomes, School Leadership and School Climate

by

Christopher Owen Cox

A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama
May 7, 2016

Approved by

Ellen Reames, Chair, Associate Professor of Educational Foundations, Leadership, and Technology
Frances Kochan, Wayne T. Smith Distinguished Professor Emeritus of Educational Foundations, Leadership, and Technology
Maria Martinez Witte, Professor of Educational Foundations, Leadership, and Technology
Paris Strom, Professor of Educational Foundations, Leadership, and Technology

Abstract

This study examined the implementation of Hybrid Grouping at Angel Elementary School. The Hybrid Grouping model consisted of three elements, achievement grouping, departmentalization and self-contained classes. The data collected allowed participants (n = 20) to share their perceptions of the leadership of the school and its relationship to the implementation of Hybrid Grouping and school climate. This mixed-methods study used data from the Angel Elementary PRIDE Survey, Angel Elementary Teachers Perception Survey, Interviews, and Alabama reading and math testing data. The framework of this study was developed based on three key constructivist theories social constructivism posited by Vzgostsky (1978), cognitive constructivism formulated by Jean Piaget (1952, 1954, 1962) and pragmatism, as delineated by Dewey (1916/2012). These three theorists suggested the social interaction of children with their environment and participating in practical, hands on activities were critical to their social, cultural, and personal development.

The results of this study of Hybrid Grouping showed that significant change occurred in student performance from the pre post implementation test on ARMT scores. The results suggested that when Hybrid Grouping is implemented properly, student achievement increases. However, the 4th grade students (3d) had less positive than negative differences in the ARMT Reading scores and 6th grade students (3f) had less positive than negative differences in the ARMT Mathematics. The analysis of teacher interviews supported the findings from the quantitative data. Four themes were gathered from the interviews that aligned with the surveys

and the ARMT scores. The four themes were: Teaching to Their Strength, Leaders' Role in Developing People, School Culture, and Innovation for Student Growth. Two broad conclusions were drawn from the research. First, the teachers perceived school leadership as having a positive impact on school climate. Secondly, teachers perceived that a shift occurred in the organizational climate during the successful implementation of this innovative model. Significant student learning outcomes occurred in concert with this climate shift. Recommendations for practice and for further research were provided.

Acknowledgments

I would like to sincerely thank Dr. Ellen Reames for her patience, guidance and understanding during my studies at Auburn University. Thank you for believing in me as an educator and a graduate student. I could not have done this without you. I would also like to thank my research committee: Dr. Fran Kochan, Dr. Maria Witte and Dr. Paris Strom. Your input was always kind, yet constructive.

I would also like to thank the faculty, staff, students and parents of Angel Elementary School. The implementation of the Hybrid Grouping and its success was because of you. It was such a blessing to be part of a school with such a passion to educate children. I do believe the love and compassion we had and still have for each other was an anomaly. I will cherish my Angel years for the rest of my life.

I would also like to thank Auburn University for putting in my path the greatest friends and fellow students I could ask for. Lynn Irwin, Chris Mitten, Kendrick Myers, and Josh Roberson will forever be my friends and classmates. Thank you all for listening, helping and most of all for pushing me to be better. I learned so much from each of you and I cherish the multiple gifts God has blessed you with and that you shared with me. Thank you my friends.

I also want to thank my family: Dad, Mom, Grandma Smith, Grandma and Grandpa Cox, Robert, Andrea, Blake, Pam, Michael, Steve, Fran, Stephen, Misty, Jackson, Sawyer, and Anna. Thank you for the encouraging and supporting me during this endeavor. I love each one of you dearly. Dad and Mom, it is with great pride in our family that I tell you thank you for raising me

to love my creator first. The example you model daily teaches me to humbly work hard and strive to get better each day. I wish I could express how much your unconditional love means to me. You made this possible.

Hannah, you bring more joy to my life than you will ever know. You amaze me daily and make me a better man because of the person you are. You are the most prized possession God blessed your mother and me with. I am so proud of who you are. Thank you for allowing me to be so close to you. Thank you for letting me be your Dad.

To my wonderful wife Tiffanie, without your love it would not have been possible to complete this research. Thank you for encouraging, supporting and sacrificing to make this possible. You believed in me and unselfishly sacrificed so I could achieve this goal. You are my soul mate and the love of my life. This dissertation is dedicated to you.

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List of Abbreviations

ARMT/STI	Alabama Reading and Math Test, Student Information
D.A.R.E	Drug Abuse Resistance Education
NCLB	No Child Left Behind Act
PTO	Parent Teacher Organization
SES	socio-economic status

CHAPTER 1. INTRODUCTION

Researchers have debated and studied school structure in elementary schools for many years (McGrath & Rust, 2002; Otto & Sanders, 1964). The purpose of this study was to investigate the advantages of an innovative school structure, Hybrid Grouping, and the way teachers perceived it as it was implemented during the 2011–2012 school year. The specific structures researched were ability grouping and departmentalization.

Educators have questioned the practice of ability grouping students for many years (McGrath & Rust, 2002; Otto & Sanders, 1964; Slavin, 1993). Many principals and teachers have preferred some method of ability grouping; however, researchers linked ability grouping with the tracking of students (Slavin, 1993) and the related ability grouping as profiling students based on race, socioeconomic status, and struggling learners. Contrary to Slavin's (1993) belief, James G. Kulik (1992) defended ability grouping. Kulik believed tracking improved student learning, and, in certain situations, it should be used in the school organization. Therefore, Kulik concluded that cross-grade and within-class grouping function well because students work with other students with the same aptitude. Organizations that show multi-level classes with minor changes to content have little impact on student achievement (Kulik & Kulik, 1992). Conversely, programs that had a substantial change in curriculum by adding cross-grade and within class groupings clearly showed positive effects. Loveless (1998) suggested local administrators and teachers must make the decisions on how best to educate their students.

Administrators have knowledge of their students and teachers; however, there seems to be a divide in what policymakers and educators believe is best (Loveless, 1998).

Background of Study

With the 2007 reauthorization of the No Child Left Behind (NCLB) Act, many educators began feeling pressure and started looking for answers as to how to assure the academic success of all students. Because of the emerging accountability associated with NCLB, elementary school administrators were looking for effective teachers, especially in the areas of math and reading. A report by the National Mathematics Advisory Panel (2008) used research to advise school systems on how to best educate students and select the right teachers for the job. The Panel made 45 recommendations. However, for purposes of the present study, the focus will be on two particular endorsements. The recommendations from the Panel included:

1. Research on the relationship between teachers' mathematical knowledge and students' achievement confirms the importance of teachers' content knowledge. More precise measures are needed to specify in greater detail the relationship among elementary and middle schoolteachers' mathematical knowledge, their instructional skill, and students' learning.
2. Research should be conducted on the use of full-time mathematics teachers in elementary schools. This recommendation for research is based on the Panel's findings about the importance of teachers' mathematical knowledge. The use of teachers who have specialized in elementary mathematics teaching could be a practical alternative to increasing all elementary teachers' content knowledge by focusing the need for expertise on fewer teachers.

Among other mandates, NCLB called for all teachers to be highly qualified in core subjects in every classroom (United States Department of Education, 2004). Expecting teachers to have knowledge to teach all these areas, which includes math and reading, may be unrealistic (Reys & Fennell, 2003). If teachers focus on areas of strength, such as reading and math, they have more time planning lessons in one area rather than multiple areas (Becker, 1987; Chang, Munoz, & Koshewa, 2008). To create a school structure where teachers teach fewer subjects requires researching the school structure (McGrath & Rust, 2002). Because of Slavin's (1993) and Kulik's (1992) conflicting research, it is imperative for educators to examine organizational structures when making decisions on how to group students in their school district.

One of the most important factors regarding school structure and innovative change in school schedules is the importance of leadership (Leithwood, 2006). Yukl (2006) defined leadership as "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (p. 8). Regardless of how leadership is defined, it affects the success of implementing innovative changes (Moore, 2008; Ogawa & Bossert, 1995). The leader who is able to motivate teachers to enhance student learning is most effective (Guarino, Santibanez, & Daley, 2006). The teachers and their willingness to listen and learn from their leader determine such leadership (Smith, Bhindi, Hansen, Riley, & Rall, 2008). Student achievement can be affected by teachers' perceptions of their leader (Smith et al., 2008).

Purpose of Study

The purpose of this study was to investigate the implementation of an innovative school structure, Hybrid Grouping, to determine if it would improve student-learning outcomes as measured by mathematics and reading ARMT scores. Additionally, the study was designed to

determine the role of the school leader, teacher's perceptions of the school leader and school climate before and after the implementation, and if implementing an innovation would be perceived by the faculty as a benefit in improving student learning and thus improving the school organizational climate.

Statement of Problem

The problem identified in this study is the degree to which the hybrid model aides in the achievement of the struggling students in math and reading while increasing the learning of the benchmark and gifted students based on scores as measured by the ARMT test scores. Second, the study identified and addressed issues related to the role of teachers' experiences, thoughts, and decisions concerning the organizational structure and the anticipated change that would occur during implementation of the hybrid schedule. Finally, the study was designed to determine if implementing an innovation would be perceived by the faculty as a benefit in improving student learning and thus improve the school organizational climate. The researcher hopes to understand better the principal's role in innovation and change.

Research Questions

The overarching question is to determine if the implementation of the innovation of hybrid scheduling would support increased student learning needs. The following questions will be researched and developed:

1. To what extent do the teachers view differences in school leadership and school climate before and after program implementation?
2. What are the primary benefits as perceived by the teachers?
3. What is the relationship between hybrid grouping on math and reading achievement as measured by the ARMT?

4. In regards to the hybrid grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?

Significance of Study

The findings will confirm the practices currently used at Angel Elementary School (a pseudonym). Students in the study will determine if hybrid grouping maintained the continued success of intensive students on the ARMT/STI test while improving the learning of their benchmark and challenge students, which should be of value to others striving to foster student learning. This study will also offer the administrators data on the organizational structure and teachers' perceptions of this type of school change. Finally, the study will add to the literature concerning the role of the school leader in determining and implementing school change initiatives.

Delimitations of Study

Delimitations narrow the scope of study. The following are delimitations of this study:

1. The study investigated Hybrid grouping in 4th through sixth grade at Angel Elementary School.
2. Subjects included only students and teachers from one school.
3. Participation in this study was volunteers so not all possible data that was available could be captured.

Assumptions

The researcher made the following assumptions regarding this study:

1. Each participant will be students or teachers participating in the hybrid model.
2. Teacher participants will answer the survey questions regarding their perceptions of the implementation of the hybrid model truthfully.

3. Participants will be familiar enough with the hybrid model process to answer the survey questions.

Summary

The study was organized as follows. Chapter 1 included an introduction, statement of the problem, research questions, significance of the study, limitations, definitions, and overview of the study. In Chapter 2, a review of the literature is presented, which includes (a) background and theoretical perspectives, (b) departmentalization, and (c) ability grouping. Chapter 3 contains descriptions of the methodology and steps taken to address the research questions. Chapter 4 presents the findings of the study. Chapter 5 contains discussions of the results, conclusions, recommendations for practice, and future considerations.

CHAPTER 2. REVIEW OF THE LITERATURE

The literature review focuses on the organizational structures in elementary school with a specific emphasis on hybrid scheduling (departmentalization and ability grouping) along with how these might influence student achievement. The review of literature will also outline and describe the conceptual framework for a change initiative. A third component of the review of research will be to provide the reader with current knowledge concerning the school leader's role in promoting and engaging in change initiatives. This study will research how students perform academically in the hybrid model, how teachers perceive the hybrid schedule as innovation, and what the role of the school leader should be in planning and implementing curricular innovation.

Conceptual Framework

The referenced framework offers pertinent data concerning constructivism, school structure, and student learning. At the core of the study's conceptual framework is the idea of constructivism. Three key theorists of constructivism were used to conceptualize the framework: Lev Vygotsky (1978), social constructivism; Jean Piaget (1952, 1954, 1962), father of cognitive constructivism; and John Dewey (1916/2012), father of pragmatism. These three theorists suggested the social interaction of children with their environment and participating in practical, hands on activities were critical to their social, cultural, and personal development. Every function in a child's cultural development appears twice: first, on the social level, and later, on the individual level. This development first appears between people (interpsychological) and then inside the child (intrapsychological). This theory applies equally to voluntary attention, to

logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals (Li & Lam, 2013; Vygotsky, 1978). Briner (1999) believed that students required help with social interaction to develop appropriately.

Hybrid grouping allows students to explore peers not only in one setting, but possibly several settings. In these settings, students get to interact with more teachers and teachers who are teaching to their strength. Students tend to bond with particular teachers based on their own personality and the teacher's personality. It is a travesty for students to be in a self-contained setting with a teacher whose personality does not allow students to bond. Reed (2002) stated that in departmentalized setting, students have opportunities to interact with multiple teachers throughout the day. These interactions increase the opportunity for the enhancement of learning experiences for students. At the same time, teachers who are allowed to teach to their strengths will likely have more confidence in their ability to reach all children.

Piaget (1952, 1954, 1962) was a cognitive constructivist. Piaget's framework allows for a better understanding of how new information is perceived and processed by students. Lou et al. (1996) believed the constructivist theory could predict the positive effect of ability grouping on student learning. Although students are generally grouped by age, their development may vary greatly (Jehan, & Butt, 2015; Weinert & Helmke, 1998). Berk (1997) supported Piaget's belief that children develop steadily and gradually throughout varying stages, and learning from one stage was dependent upon the next stage.

Piaget (1952) developed the constructivism theory based on the idea that students gain knowledge based on interaction with their environment (Garner, 2008). Educators use Piaget's constructivist theory as a guide to adopt learner-centered pedagogy and implement student-centered classrooms (Froyd, 2007; Smith, 2015). Piaget saw children as the builders of what

they learn along with their external realities (Ackerman, 2002). Ackerman acknowledged that children gain knowledge both constructed and reconstructed through personal experience. Knowledge is not something that just happens; it is constructed through personal experience. Piaget's theory calls for educational objectives to be focused on developing creative independent thinkers (Nadeem, & Wani, 2013). Using peer-learning activities in the instructional design process allows students to take ownership of their learning (DeVries, 2002).

Peer relationships in a child's development have endured as one of Piaget's primary themes (De Lisi, 2002). Piaget's theory associates educational practices, such as grouping, with active participation in the teaching-learning process. Many educators group students into teams to complete their assigned task. De Lisi believed achievement would be greater when peer activities are planned in the teacher's lesson. The purpose of peer learning supports Piaget's theory that listening, communication, and greater understanding are achieved when students exchange ideas. A secondary benefit to group learning is that students learn how to interact with classmates to create a successful team experience (De Lisi, 2002).

DeVries (2002) emphasized the responsibility teachers have to create cooperative relationships with their students. It is important for teachers to understand the socio-moral context when peer learning occurs (De Lisi, 2002). De Lisi noted teacher-directed classrooms, which are based on obedience, are less likely to receive the benefits from peer grouping activities. De Lisi (2002) also noted, "A student's cognitive system is more likely to be fully engaged when:

> [a] She [the teacher] feels that her learning efforts are respected and valued by teachers and by classmates,
>
> [b] She has positive feelings about the learning situation, and

> [c] The curriculum tasks and problems are developmentally appropriate. If even one of these three elements is missing, imbalances in knowing relationships can occur. (p. 32)

Teachers must make drastic changes in their focus of teaching by first putting the focus on learners' need to construct meaning (Lantolf, Thorne, & Poehner, 2015). Students learn and gain knowledge through construction and experience, not through passive reception of information the teacher shares with them.

Classrooms that develop a feeling of mutual trust and respect have a greater chance for the peer learning experience to be successful (DeVries, 2002). Using Piaget's theory in the classroom benefits teachers and students. Teachers can align their teaching strategies to a student's learning level. Often, teachers prefer small groupings because they allow for a better quality of work, better student concentration, and easier management of students (Blatchford, Baines, Kutnick, & Martin 2001). Bennett, Desforge, Cockburn, and Wilkinson (1984) found effective teachers were aware of the potential for learning and had the ability to plan tasks with groupings in their classrooms.

Hybrid grouping aligns with Vygotsky's theory by creating a school structure that empowers teachers to plan lessons, which cater to the learning needs of every student (Duke & Pearson, 2002). School systems today commonly use the gradual release instructional model; however, this model does not allow teachers to take full responsibility of student learning. Teachers must shift the responsibility to students. The gradual release model, which is embedded in hybrid grouping, encourages students to become quality thinkers and learners. This model ensures that teachers support students in their acquisition of learning (Duke & Pearson, 2002).

The major theme of Vygotsky's social development theory is that social interaction plays a role in the development of cognition. Along with others, Vygotsky's theory is one of the foundations of constructivism, which theorizes that learning is an active and constructive process. Learning is an experience wherein individuals construct their own reality by linking information to previously learned information. Vygotsky asserted there are three themes to social development theory. First, the student learns through social interaction with peer or adult within a cultural context. Second, the student learns with the help of a more knowledgeable other, which could be a teacher, coach, or even a computer. Third, the student demonstrates the ability to perform a task within proximity or under the indirect watch of another with the result that the student performs the skill or task independently (Jarvis, 2006; Vygotsky, 1962, 1978).

Vygotsky taught that development comes from a foundation of instruction, which has three major themes: social interaction, interaction with a more knowledgeable other, and then within a zone of proximal development. Just as there exist different types of learners with different needs and goals, different learning environments exist as well. The federal law requires schools to guarantee a learner an education in the least restrictive environment. Most students will receive their academic classes in general education, regular education classes (Lee & Templeton, 2008). Some students, however, require a more restrictive environment or they require more assistance. For these students, the environment may be the inclusion classroom. Inclusion classrooms exist in different formats. They may be collaborative whereby a regular education teacher would stay with the class each day and teach, and a special education teacher would come in on a scheduled basis and collaborate with the other teacher. An inclusion setting could be a co-taught setting where two teachers, a regular education and a special education

teacher, share the responsibilities every day. The other, more restrictive environment is the small group setting with 10 or 12 students and a teacher and an assistant.

King-Sears (2007) explained how students with or without disabilities could learn the relevant materials by providing differentiated instruction in an inclusion classroom. "Differentiation has the potential to increase the scores for students with disabilities, students at-risk for school failure, typical students and students labeled as gifted and talented" (p. 59). This definition of differentiated instruction reflects Vygotsky's socio-cultural theory and defines the interactional relationship between the teacher and student. Differentiation strategies such as choice boards, co-operative learning, peer-mediation, and collaborative strategies reading can result in substantial gains for students with and without disabilities. If a teacher can pre-assess student learning to determine student readiness, he or she can gauge where to begin with the curriculum. A teacher can then continue to monitor student progress during instruction. This information indicates how quickly students acquire skills, so they can move on with the curriculum (Almond, Lehr, Thurlow, & Quenemoen, 2003).

According to Print (1993), the inquiry method of teaching encourages an interaction between the learner and the teacher. Models of learning dealing with inquiry are often times acknowledged in the sociocultural theory. This perspective, of which Vygotsky represents, is concerned with how human mental activity is influenced and constrained by cultural, social, and historical conditions. Print wrote that when learners are actively involved in the learning process, they search for answers or resolutions to the problems presented. During this process of searching for solutions, learning occurs. As the teacher helps the learner work to find the answers, feedback occurs as well. When the teacher pushes the learner to answer questions through interactions and active problem solving, it triggers thinking in the learner.

Print (1993) further stated that by scrutinizing a problem, a learner becomes involved in the actual acquisition of information, which promotes understanding and memory retention. When learners resolve their own academic problems, they retain the understanding more efficiently because of the close identification with the newly acquired information. This process results in the development of skills whereas the learner learns to process a variety of different types of information (Print, 1993).

The inquiry method of teaching is applicable for a myriad of subjects and themes—foreign languages, the sciences, social studies, and technical subjects, for example. In the inquiry method of teaching, the teacher becomes the facilitator rather than simply the lecturer or provider of information. The learner is the active participant who searches for the answers and thereby the knowledge (Print, 1993; Siminică, & Traistaru, 2013). Weldon (2002) listed four premises called "People learn best when:

- They are physically and emotionally comfortable.
- They select goals or help select goals that are of real importance to them.
- Through realistic and predominately first-hand experience.
- They are challenged (but not threatened) within their range of abilities." (pp. 45–48)

Weldon explained this is why coaches have so much success when teachers fail with the same students.

Considered the Modern Father of Experiential Education, philosopher and pragmatist John Dewey (1858–1952) looked at the relationship between the student and society. Dewey considered the school a laboratory for student learning. Dewey (1916/2012) said, "An educator must take into account the unique differences between each student" (p. 228). Curriculum must be designed in ways that allow for students and their individual differences (Neil, 2005).

Children need exposure to a wide variety of learning experiences, and these experiences need to be practical in nature and constructed socially (with others) as well as personal (self). Because of Dewey, school structures in elementary schools began to change. Learning centers are a direct outcome of Dewey's thoughts on active learning. Students learn by doing (Dewey, 1916/2012). Dewey (1916/1980) wrote that education is a process of helping students reconstruct or reorganize their experiences in a productive way. He viewed inquiry as addressing our concerns and motivating students to "explore and grapple with the real problems of their home and community" (Rudolph, 2005, p. 811).

Dewey did not believe in teaching in traditional methods. Dewey believed in teachers focusing on curriculum that aligned with reality. Because of what we know is a result of our action, Dewey believed school should provide an environment for students to actively engage in important matters of their lives—as an extension of their everyday lives rather than as an artificial suspension of them (Dewey, 1916/1980). Dewey acknowledged that education is no longer teaching facts; it should be using students' knowledge of the past to better understand the future. Hybrid grouping is a model that changes traditional education. It is a structure that requires a school to acknowledge each student and their past learning abilities while using expertise and knowledge to push the student to learn for their future.

John Dewey has often been referred to as one of the founders of constructivism and pragmatism. Dewey (1916/2012) said, "An educator must take into account the unique differences between each student" (p. 228). Curriculum must be designed in ways that allow for such individual differences (Neil, 2005). Children need exposure to a wide variety of learning experiences, and these experiences need to be practical in nature and constructed socially (with others) as well as personal (self).

Hybrid grouping, by definition, would be one of the areas of interest to constructivists such as Vygotsky, Piaget, and Dewey. This type of grouping allows students to have the opportunity to learn with peers in a setting that is conducive to their development. Angel Elementary School's (a pseudonym) faculty determined it was appropriate for the first through third grade students to be grouped homogenously in the morning and heterogeneously in the afternoon. Fourth through sixth grade students would be grouped heterogeneously in the morning and homogenously in the afternoon. The hybrid model is built to allow the school structure the ability to empower teachers to become experts on their subject and the students' developmental stage in the learning of their subject. Teachers who are experts of their subject and students' knowledge should be able to prescribe learning activities, which meet the needs of every student they teach.

Angel Elementary Schools' leadership team decided to implement an innovative schedule called hybrid grouping. The term 'hybrid' is used because the new organizational structure implemented factions of both departmentalization and achievement groups throughout the day. The synthesis of the literature review identifies the research on the three organizational structures and the ways they relate to this study. Figure 1 shows the relationship between the theoretical frameworks and the research problem.

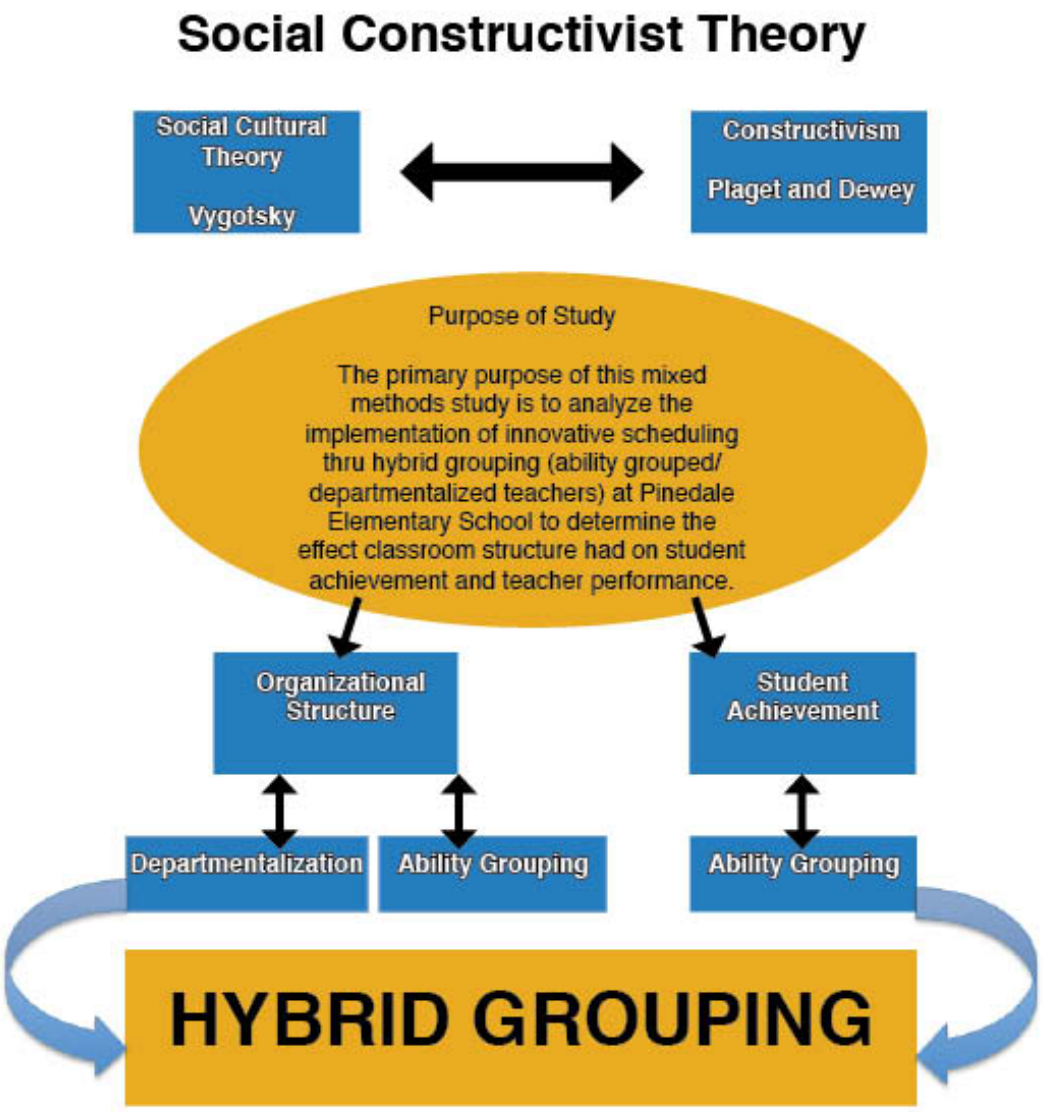

Figure 1. Social Constructivism Theory

Angel Elementary Schools' leadership team decided to implement an innovative schedule called Hybrid Grouping. The term 'hybrid' is used because the new organizational structure implemented factions of both departmentalization and achievement groups throughout the day. The synthesis of the literature review identifies the research on the three organizational structures and the way they relate to this study.

The purpose of this study is to determine if Angel Elementary School would be able to use an innovative school structure to enhance the teacher's ability to stretch instruction for students who meet grade-level standards and need acceleration while at the same time continue to meet the needs of the struggling students. The review of literature is focused on the following areas: (a) social and cognitive constructivism and pragmatism through the eyes of Vygotsky, Piaget, and Dewey; (b) departmentalization and teacher specialization in reading and math; (c) ability grouping; and (d) the leaders and followers' role in initiating innovative change.

Departmentalization and Teacher Specialization

It is assumed in today's elementary schools that classroom teachers are experts in every subject. Yet, it is known that teachers are not given an opportunity to choose the subject they would like to teach or feel comfortable teaching (Chan & Jarman, 2004; Stewart,2015). Chan and Jarman reported that a way to address self-contained classrooms was through departmentalization. In a departmentalized setting, teachers are able to specialize in one subject area, and students move from classroom to classroom. School systems across the United States have implemented changes to the traditional elementary school structure. Innovative planning has set up grade-level teams, cross-grade teams, non-graded structure, and partial departmentalization (Wiles & Bondi, 2001) that laid the foundation for the full implementation of departmentalization in elementary schools (Chan & Jarman, 2004).

Butzin, Carroll, and Lutz (2006) completed a study of South Heights Elementary School in Henderson County, Kentucky. South Heights Elementary was one of the lowest performing schools in the state of Kentucky, and the teachers blamed poverty, parent involvement, discipline, and staff turnover for the problem (Butzin et al., 2006). In 1998, the school leadership team asked a third, fourth, and fifth grade teacher to pilot teach a specific subject

rather than all subjects. Students changed classes for reading, writing, and math for 60 minutes at a time. Teachers used the beginning of class for whole-group instruction while follow up activities took place at different stations. At the end of the school year, the pilot group was outperforming the students that were in self-contained classrooms. After five years as a Project CHILD school, South Heights Elementary exceeded the academic goals set by the state. In 2004, the school was recognized as a National School Change Award winner (Butzin et al., 2006, p. 368).

The argument often used in favor of departmentalization is that teachers become classroom experts in their subject area and can therefore foster deeper student learning (Freiberg, 2014; Goodland, 1966; McPartland, Coldirion, & Braddock, 1987). When teachers are confident and passionate about their subject, their excitement is communicated to their students. Changing classes allows students to avoid the monotony of the self-contained classroom during the school day. Finally, teachers prepare for fewer subjects to teach and concentrate on, as a result, teachers should have the time to develop more effective lesson plans (Goodland, 1966: McPartland et al., 1987).

Elementary Teacher Preparation for Math Instruction

In the United States, most teacher education programs prepare students to teach all subject areas. The preparation for elementary school math teachers includes six to nine credit hours in college mathematics (Reys & Fennell, 2003). Ball (1991) argued that these courses did not adequately prepare teachers for substantial mathematical knowledge. It is unrealistic to believe that teachers can be experts in math and every other subject they teach. Distributing classes teachers teach based on knowledge and interest is a way to address the need for specialized instruction (Grant, & Peterson, 1996). Reys and Fennell stated that many school

systems have organized their teaching staff by grade level. Teacher specializing enables teachers to focus their efforts and professional development on a specialized area of instruction. Many principals have acknowledged that having one teacher teach math within a teaching team benefits children and teachers (McKinney, Berry III., & Jackson, 2007).

Throughout the United States, elementary teachers tend to have a lack of knowledge in mathematics and reading, and this poses a problem for elementary school classrooms. Hill, Rowan, and Ball (2005) found a relationship between teachers' knowledge in mathematical concepts and students' achievement (Ma, 1999). For teachers to become more proficient in mathematical concepts, they must have time to plan and prepare for a deeper knowledge of the content and students' understanding. Thus, specialization offers teachers the opportunity to pursue deeper learning in their content area and create higher quality lessons for students. Hill et al. (2005) reported that when a teacher takes more courses, it does not necessarily guarantee a higher quality of instruction for that teacher or increased learning for students. Teachers must embrace the opportunity to enrich their knowledge and understanding of the content and teaching their content to students.

Elementary teachers have interests and can become specialist in their preferred content or pedagogy. Many school systems have set up departmentalized classrooms in upper elementary schools. An example of this is a team of teachers in a grade level selecting one teacher to teach each subject area (Reys &Fennell, 2003). Teachers specializing in one subject area allow teachers to focus their efforts and professional development on that specific area (Grant, & Peterson, 1996). Teacher specialization also allows school districts the ability to focus their attention on fewer teachers being trained for each subject area. An advantage of the departmentalized model is that no additional teachers are needed; rather, teachers are

redistributed among subjects. Reys and Fennell believed it to be unrealistic to think elementary teachers have expert type knowledge in many subjects. Ma (1999) claimed that the time given teachers to accomplish their expertise in multiple subject areas is impossible.

Decision Making

Deborah Ball, a William H. Payne Collegiate Professor in education at the University of Michigan, said, "In no area do we have solid research that would tell us that the use of something call a specialist improves kids learning at least in part because the notion of what a specialist is can vary so much" (as cited in Hood, 2010, para. 4). When determining whether to departmentalize or not, of course, the most important factor is the students. Although elementary students do not decide on their schedule, they are the most important stakeholders in the decision. The traditional school organization with top down leadership served schools reasonably well when school performance met public expectation and few changes were occurring. Since the publication of *A Nation at Risk* (2003), however, demands for school improvement and change have exposed weaknesses in that hierarchical design. Many of the strategies gaining popularity include increased teacher involvement in decision-making. Leadership has become more broadly defined to include faculty and other stakeholders rather than the *lone wolf* principal with leadership as major features (Buckner & McDowell, 2000). Individual administrators should not be the sole decision maker when changing to a hybrid schedule. Teachers need the opportunity to share their insight from their classroom perspective. Their involvement improves the quality of the decision, and improves the teacher commitment in implementing the hybrid schedule (Price, 2012).

Transitioning to Hybrid Scheduling

Transition and preparation of elementary students from self-contained classrooms to departmentalized classrooms provides a school structure that benefits students (Chan, Terry, & Bessette, 2009). Some believe departmentalization potentially provides fourth and fifth graders the tools necessary to transition successfully from elementary to middle school learning environment (Chan et al., 2009). Schools that provide safe environments, support for student autonomy, and meaningful inclusion of students offer opportunities to think critically, develop opinions, and engage more in their classes (Chan et al., 2009). Successful transition includes collaboration between teachers of both schools to develop programs that ensure students the best start possible in middle school and beyond. Research indicates a decline in achievement during transition years as schools convert from self-contained classrooms to departmentalized classrooms (Alspaugh & Harting, 1995; Mitchell, 2013). Schools show recovery from achievement losses in years after transition; moreover, rural schools have higher achievement levels than do urban school districts (Alspaugh & Harting, 1995; Mitchell, 2013).

In the United States, elementary school organization and structure have been debated for many years. One component of the organization involves the number of subject areas each teacher covers (Alspaugh & Harting, 1995; Mitchell, 2013). School settings in the elementary world are generally self-contained or departmentalized settings. Anderson (1962) reported that 4 out of 260 teacher participants felt as though they were prepared to teach all subject areas. McGrath and Rust (2002) learned that departmentalized classes were able to use 48 out of 60 minutes for instructional time, and self-contained classes used 46 out of 60 minutes for instructional time. By implementing the hybrid schedule, students gain two minutes of instruction every hour, six times per day for 180 days, which equals 36 hours per year.

Ability Grouping and the Effects on Academic Achievement

Abadzi (1984) examined possible academic effects of ability grouping, which indicates this practice helps higher achieving students while having the reverse effect on lower achieving students. An area of concern is the stigma attached to students in intensive groups and the effect on self-esteem. Classification in low ability groups is associated with lower self-concept, lower achievement motivation, higher incidence of juvenile delinquency, and lower socioeconomic status is evident. Predictions indicate decreases in self-concept, achievement motivation, and academic performance for students classified in low ability groups.

Grouping Students

Petrello (2000) studied the effects of homogeneous and heterogeneous ability grouping in the elementary school where she worked. Petrello surveyed teachers and administrators to ascertain their preferences and attitudes toward this type of ability grouping in their classrooms. The researcher found that most teachers favored homogeneous grouping more than heterogeneous grouping, which most journal articles advocate. In addition, Petrello examined the effect of grouping on three levels of ability (high, middle, low) to see if each group benefited from heterogeneous or homogeneous grouping. The data showed the lower ability group benefited from heterogeneous designs and ability grouping (Petrello, 2000).

In addition, Petrello's (2000) colleagues found the heterogeneous class design was more difficult to teach and hindered the academic achievement of the gifted students. These professionals felt the high achieving students served as peer teachers to the lower level students because the high-level students already knew or mastered the material taught to the lower level students (Petrello, 2000). With the rising emphasis on higher standards placed on the school, it is important to adjust the instructional content for the high-level students (Petrello, 2000).

Students who received an accelerated curriculum benefited more than did the students who received enrichment activities (Petrello, 2000).

For the lower level student, having high ability students instruct their lower ability peers, gives them a greater understanding and insight into how they drew their conclusions, or found the answers (Petrello, 2000). These lower level students have a greater chance of achieving better grades on test, reinforcing the implementation of, and meeting higher standards using this form of peer tutoring (Petrello, 2000). However, some of Petrello's colleagues felt the high-level ability group achieved regardless of the grouping they received. Students in this level received instructional techniques that developed high level and critical thinking skills in contrast to the lower level students who received less stimulating instruction.

Petrello (2000) found the middle level group to be the most overlooked group based on the lack of information on this group. Petrollo's data show that students in this group move into the higher or lower group depending on how they perceive themselves. Further research needs to be conducted on this group of students (Petrello, 2000). Petrello's findings show that educators of students in the low-level group often lower their standards of instruction when working with these students. The survey results from Petrello's school indicate that each educator used many grouping techniques and should be allowed to use what works best in his or her classroom.

Achieving Higher Standards

In addition to Petrollo's (2000) study, the Center for Research on Elementary and Middle Schools at John Hopkins University in the area of grouping students by academic ability researched different grouping plans used in elementary schools (Betts, & Shkoluik, 1998; Loveless, 1998; Maxwell, 1986). Five ability-grouping plans, which are commonly found in elementary classrooms, received examination by the center: (a) between-class, (b) within-class,

(c) regrouping for reading and/or mathematics, (d) the *Joplin plan*, and (e) non-graded plans (Maxwell, 1986). Results of the research indicate assigning students according to academic ability, which is sometimes called tracking, does not raise student achievement. However, grouping students in the classroom for one or two subjects, such as reading and math, can be highly effective in raising student achievement (Boaler, 2013).

The research shows that the grouping of students by class on ability or achievement, with students in different grade levels moving together from teacher to teacher, does not enhance student achievement (Maxwell, 1986). Findings for within class grouping, with one or two ability groups in the class, indicate insufficient data to support or disclaim its effectiveness for teaching reading. Results do indicate this type of grouping proves effective for teaching mathematics if only two or three groups are formed (Maxwell, 1986). It is indicated that there are slightly greater effects on lower achieving students than on higher achieving students. Findings of a third plan — regrouping of students to heterogeneous, self-contained homeroom classes for most of the day with regrouping in separate classrooms according to academic subjects — can improve student achievement. Success with this plan is dependent upon adapting the level and pace of instruction to achievement levels and limiting grouping of no more than two subjects (Maxwell, 1986).

Strong support exists for the Joplin plan and its impact on reading instruction. The Joplin plan, which originated in Joplin, Missouri, places students in self-contained classrooms for most of the day with regrouping occurring for reading instruction across grade levels (Maxwell, 1986). High achieving students from fourth grade, fifth graders with average reading abilities, and sixth graders reading below grade level receive instruction in this plan (Maxwell, 1986).

The study of the *non-graded* or *ungraded* plan, although mixed, indicates, overall, implementing this type of plan is encouraged (Maxwell, 1986). Building on the Joplin plan, non-graded plans emphasize individualized instruction (Maxwell, 1986). Grouping of students is based on performance rather than age. Curriculum is divided into levels with students progressing at individual rates and resuming each year at the previous years' ending level. This plan includes team teaching, individualized instruction, and learning centers in addition to other flexible approaches (Maxwell, 1986). Successful plans include the following criteria: (a) placing students according to ability levels in specific skills, (b) providing teachers flexibility to reassign students to different ability groups when academic performance changes, and (c) allowing teachers to vary the pace and level of instruction to respond to the students' needs boost student achievement (Maxwell, 1986). Within class grouping for mathematics and both non-graded and Joplin plans for reading proved success for students (Maxwell, 1986).

In her John Hopkins research, Maxwell (1986) gave suggestions on how to group students by ability using the following guidelines.

- Assign students to heterogeneous homeroom classes and regroup for reading and mathematics.
- Group students on performance of specific skills, rather than on their overall achievement level.
- Frequently reassess and reassign students as they progress.
- Adapt the levels and pace of instruction to students' readiness levels, and form few groups within a class.

These measures can result in improved direct instruction in the classroom (Maxwell, 1986).

Maxwell (1986) mentions that it is important to the study of fourth grade students in a Texas school district who were assessed using regression-discontinuity analysis. Assessment for this research was the 77th Iowa Test of Basic Skills, with cut off scores in the 77th percentile in both reading and mathematics, as the basis for placement in high and regular ability groups. Students in high achieving groups showed significant gains in standardized achievement scores after a year of ability grouping. Students scoring a little above the criterion showed some increases in performance, while students who had scored just below the criterion showed a decrease in performance after a year in regular ability classes. Assessment of self-esteem occurred at both the beginning and end of fourth grade. There were no significant differences found during this period or between the high and regular groups after third grade, achievement scores were covaried (Maxwell, 1986). In support of the studies of Petrello and Maxwell more recent research by Chorzempa and Graham suggest that ability grouping has some positive outcomes. The most widely reported outcome that ability grouping provides is instruction for students is affective and meets their needs (Chorzempa & Graham, 2006). In a study regarding the use of within-class ability grouping in reading, Chorzempa and Graham surveyed 222 reading teachers and 63% of them used ability grouping to meet the needs of their students. The research shows that most elementary school teachers are using ability grouping to aid the learning of their students.

Impact on Math Achievement and Reading

In his study, Davenport (1993) pointed out that homogeneous grouping places students in classes based on ability or achievement as the deciding variable. This practice is most prevalent in high school mathematics with placement of students in vocational, general, or college-preparatory mathematics classes. Students in middle and junior high schools also experience this

type of grouping in schools that offer algebra at the eighth grade. Students at the elementary level may also be grouped or tracked, although they are more often grouped by general ability and achievement rather than achievement in mathematics (Davenport, 1993).

Davenport's (1993) research did not examine specific relationships between tracking and achievement in science or mathematics. However, research does suggest tracking at the secondary level fails to increase learning while widening the achievement gap between students. Studies examining effects of homogeneous grouping on achievement take two approaches: comparisons of the achievement of students in heterogeneous classes with comparable students in ability-based classes or comparisons of achievement of students in different ability groups (Davenport, 1993). Few ability differences have been found in the achievement of students in heterogeneous classes with comparable students in ability-grouped classes (Boaler, 2013). The research suggests persistence in the use of tracking is based on the assumptions that students learn better when grouped with students of similar academic abilities. Students' development of positive attitudes about themselves improve when placed with students of similar abilities, placement separates students into groups that both fairly and accurately reflect past achievement, and individual differences are easier to accommodate in homogeneous groups (Boaler, 2013).

Effect on Classroom Organization

Research conducted by the Pennsylvania Educational Quality Assessment with 8,000 sixth-grade students in both elementary and middle schools examined the different organizational patterns effectiveness on academic learning of students of different backgrounds and abilities (Baker, 2011). Areas examined included instructional specialization, between-class ability grouping, with-in class ability grouping, and grade span effects on the achievement of students from low to high socio-economic status (SES) backgrounds. Data indicate elementary

classroom settings combined with instruction from a limited number of teachers provide students from low social backgrounds more benefits. Between-class grouping provides more benefits for high social background students in middle schools, and within-class ability grouping in elementary schools benefits low background students in reading (Baker, 2011).

Research supports the importance of considering the differential payoff of alternative grouping methods for different groups of students (Baker, 2011). Student sub-populations were measured in a social background; however, corresponding results may apply to sub-populations defined in prior achievement or ability. Elementary school settings provide advantages for students in low social backgrounds while having neither helpful nor harmful effects to other students. Instruction from a limited number of teachers appears to benefit learning in most subjects for most students. Homogeneous ability mathematic groups provide more benefits for high background students than for low students while proving most effective in sixth-grade middle school classrooms. Between-class ability grouping in reading results in higher achievement in English while proving advantageous for low background students in elementary classrooms. Within class ability grouping in this data only supports data related to performance of low background students on reading test, where ability grouping for reading or English produced higher scores (Baker, 2011).

Sixth-grade students receive education under various organizational structures that include highly tracking, highly departmentalized middle schools, and self-contained heterogeneous elementary school classrooms. Previous research concerning the impact of alternative organizational structures is neither clear nor consistent (Lieres & Rangel, 2009). The authors suggested instructional specialization combined with middle school environments might benefit learning in high ability students while hindering learning in low ability students.

Between-class grouping may also benefit high ability groups while hindering both low and normal ability students. Administrators must consider the impact of divergent organizational arrangements when determining the learning environment for all students.

African American/Hispanic Achievement

This study examines the impact of ability grouping practices on achievement gains between both Hispanic and African American students in elementary school (Lleras & Rangel, 2009). Early Childhood Longitudinal Study data support the differential effects hypothesis of ability grouping (Lleras & Rangel, 2009). Placing students in low ability groups for reading instruction produces less growth than placement of students in high ability groups, compared with students in classrooms that do not practice ability grouping. Research results question benefits of ability grouping in the earliest years of schooling (Lleras & Rangel, 2009).

Expectations of students learning basic skills and reading proficiency necessary to complete higher levels of education make early learning years critical in students' cognitive development (Sahlberg, 2011; Stigler & Hiebert, 1999). Non-mastery of early pre-reading and reading skills places significant numbers of racial minority students at risk for problems in both middle and high school. Results of reading achievement gains in first grade indicate students placed in lower groups for reading instruction have lower reading achievement gains compared to non-grouped African American and Hispanic students (Sahlberg, 2011; Stigler & Hiebert, 1999). No benefits are evident in placing students in high groups in first grade if African American and Hispanic students are in classrooms where most students read at or above grade level. Research indicates negative effects on reading achievement gains for lower grouped students in these classrooms. Grouping has a detrimental effect on learning compared to non-grouping in these classrooms (Sahlberg, 2011; Stigler & Hiebert, 1999).

Higher group placement results for third grade suggest similar findings; in comparison, placing Hispanics in higher ability groups produces significantly better reading achievement scores compared to non-grouped students (Lleras & Rangel, 2009). Negative effects of lower group placement of African American and Hispanic students increases if students are also placed in low ability groups. Findings indicate an increase in problems with student placement in lower ability groups in low ability classrooms for students in the third grade when their predicated achievement gaps between higher and lower grouped students are the greatest (Lleras & Rangel, 2009). Educational problems experienced by African American and Hispanic students in middle and high school are extensively documented. Studies also indicate these students are more likely to leave elementary school with lower achievement compared to White students (Lleras & Rangel, 2009). Elementary schools provide important opportunities to influence early educational trajectories among at risk students. Within school practices of ability grouping plays an important role in shaping both reading skills and proficiency among African American and Hispanic students (Boaler, 2010).

Grouping for Academic Gains

Advocates of like-ability grouping believe this technique challenges students of all ability levels while promoting academic excellence (Adleson & Carpenter, 2011). Examination of the data indicates the frequency of within-class grouping positively relates to mean school gains in reading across kindergarten classes. While results suggest the use of achievement grouping may potentially facilitate early literacy and reading improvement, effects of different size achievement groups or effects on students in gifted programs did not receive examination (Becker, et al., 2014).

Using data from a national database, Adelson and Carpenter (2011) examined the relationship between achievement groupings, the size of achievement groups on kindergarten reading growth, as well as the effect these relationships may have for students in a kindergarten-gifted program. Research indicates a relationship between achievement grouping and increased reading achievement in small groups (Adleson & Carpenter, 2011). Students placed in gifted programs during kindergarten experience less reading growth than do their peers. Data suggest using achievement grouping provides opportunities to improve achievement in kindergarten (Adleson & Carpenter, 2011).

Opponents of like-ability grouping claim these methods develop lower expectations for lower ability students and deny lower-ability students access to learning and academic advancement (Adleson & Carpenter, 2011). Other studies suggest high-ability grouped students experienced greater achievement over like-ability peers who did not receive achievement grouping, while the opposite was the case for lower-ability students (Becker, et al., 2014). Using the same data set, other studies found similar results in African American and Hispanic students as well as depriving lower-ability student's intellectual stimulation provided by high-ability students in addition to labels assigned to lower-ability students may lead to self-fulfilling consequences. Denying students opportunities to interact with peers of different socioeconomic backgrounds because of ability grouping resembles social and ethnic groupings with Hispanic, Blacks, and lower socio-economic students most often placed in lower ability groups (Adleson & Carpenter, 2011).

Reviews of achievement grouping research indicate achievement grouping positively affects high-ability students' achievements while not affecting other students (Adleson & Carpenter, 2011). Studies suggest Hispanic students benefit from ability grouping in

kindergarten and first grade while reducing achievement gaps Hispanic students face entering kindergarten. Researchers provide evidence that achievement grouping benefits all students and specifically students participating in kindergarten-gifted programs (Adleson & Carpenter, 2011). Students placed in classrooms that use achievement grouping experience greater kindergarten growth. Smaller groups increase achievement for all students (Adleson & Carpenter, 2011). Effects are greater for high-ability students not placed in gifted programs.

Students entering kindergarten with high reading readiness experience greater achievement when provided opportunities to learn through achievement grouping in small groups (Behrend, 2012). Implications suggest that use of small achievement groups relates to stronger reading achievement gains for kindergarteners. Using small achievement groups allows teachers to provide instruction to students with homogeneous achievement levels in their zone of proximal development, which allows all students the ability to move together at a similar speed (Behrend, 2012).

Effect on Students with Different Abilities

Research indicates little or no differential effects of grouping for high-achieving, average, or low-achieving students (Betts & Shkolnik, 1998). Betts and Shkolnik found the allocation of students and resources into classes was similar between schools that grouped and those that did not group. Examination of three school inputs, class size, teacher education, and teacher experience, indicates both types of schools allocate resources to the class ability level in similar ways, such as putting low-achieving students into smaller classes (Betts & Shkolnik, 1998).

Advocates of ability grouping argue that student's benefit from placement of similar students into classes using individualized instruction based on their abilities (Chmielewski, Dumont, & Trautwein, 2013). Opponents of ability grouping argue there are also peer group

effects, which make achievements of a given student dependent not only on their initial ability, but also on the average ability of the class. Placement of high-achieving and motivated students in a class raises everyone's level of achievement, while essentially harming the lower ability students by separating them from the high ability students. The peer group effect includes potentially harming test scores of low ability students because of lowered expectations and self-esteem (Betts & Shkolnik, 1998).

Research in past studies comparing students from different ability groups to heterogeneously grouped students indicated top students benefited from ability grouping while bottom students did not, which results in a net effect that can be positive or negative, but is usually close to zero (Liem, Marsh, Martin, McInerney, & Yeung, 2013). Research does not support evidence that grouping benefits all students, but does call into question evidence that grouping has large differential effects in secondary schools. Previous studies that compared high, middle, and low groups in schools with ability grouping to heterogeneous groups in schools that did not group, found grouping did have large differential effects (Betts & Shkolnik, 1998). Findings indicate high ability grouped students do better while low ability grouped students do worse compared to students at schools without grouping (Betts & Shkolnik, 1998).

Betts and Shkolnik (1998) examined the effects of formal policies of grouping in math classes by using a nationally representative data set. Research confirmed findings in previous studies and found no overall effect of formal grouping policies on student achievement (Betts & Shkolnik, 1998). Betts and Shkolnik's results confirm results found in previous studies that grouping leads to large differential effects. However, researchers argue that these results may reflect inadequate control groups (Chmielewski, Dumont, & Trautwein, 2013). Betts and Shkolnik did find supporting evidence that grouping has differential effects across students of

differing ability levels. After controlling for class ability level in the non-grouping schools, the sizes of the effects appeared smaller than previous estimates. There is little supporting evidence that ability grouping generates inequality in allocation of school resources among classes. This does not mean ability grouping is necessarily ineffectual. All schools group students to some extent, even if there is no formal grouping policy (Liem, Marsh, Martin, McInerney, & Yeung, 2013).

Initiating and Sustaining Innovative Change

It is because of accountability and higher standards, educational leaders must guide their schools through difficult times in complex environments (Bogler, 2001; Day, 2001; Fullan, 2002, 2014; Leithwood, Riedlinger, Bauer, & Jantzi, 2003). Changes in technology and curriculum have made the education system more complex than ever before (Leithwood et al., 2003). "In these times of heightened concern for student learning, school leaders are being held accountable for how well teachers teach and how much students learn" (Leithwood et al., 2003, p. 709). Research confirms that leadership has significant effects on student learning. Leithwood et al. believed leaders influence students by providing innovations and visions that allow teachers to teach well (Bogler, 2001; Day, 2001; Fullan, 2002; Leithwood et al., 2003).

Leithwood, Seashore-Louis, Anderson, and Wahlstrom (2004) outlined three sets of core leadership practices: (a) setting direction, (b) developing people, and (c) developing the organization. The dimension of setting direction includes understanding the school and having a vision to inspire teachers and students for the future (Leithwood et al., 2003; Leithwood & Sun, 2012). Barth (1990) recommended school leader to try to decrease adversarial relationships and become collaborative as a "community of learners" (p. 37) and later as a community of leaders.

"Effective leaders help the school to become a professional learning community to support the performance of all key workers, including teachers and students" (Leithwood et al., 2003, p.209).

Developing people becomes important to the leader because people are the ones who accomplish the work (Leithwood et al., 2003; Leithwood & Sun, 2012). Leaders must influence the teachers and students to embrace the innovations that bring about progress in the school (Bishop & Mulford, 1996; Leithwood et al., 2003; Sheppard & Brown, 1996). Leithwood et al. (2003) explained that effective leaders are able to challenge their staff to evaluate their work and examine how it could be performed differently. The leader provides opportunities through collaboration and professional development to understand the changes made (Leithwood et al., 2003; Leithwood & Sun, 2012). Developing and using innovative pre- and in-service development programs have become more important over time, with some districts launching mentoring and coaching models alongside institutes and other professional learning experiences, which are more extended than were the traditional one-shot workshops that were often criticized for their limited impact (Peterson, 2002). While implementing new visions, the leader must show concern about the teachers' feelings and needs (Leithwood et al., 2003; Leithwood & Sun, 2012). Modeling the innovations for the teachers builds capacity and enthusiasm for the change (Leithwood et al., 2003; Leithwood & Sun, 2012).

Developing the organization enables the school to operate as a professional learning community. Effective leaders are able to make changes that create positive conditions for teaching and learning. Leithwood et al. (2003) recommended leaders should allow staff members the opportunities to be part of the creating the vision and implementing it. Working with stakeholders and garnering support from the community are most important when implementing innovative changes (Leithwood et al., 2003; Leithwood & Sun, 2012).

Successful school leaders are able to offer opportunities that allow each student to overcome the challenges of their learning (Leithwood et al., 2003; Leithwood & Sun, 2012). Research shows that these leaders are able to create instructional methods, which reach the students they serve (Leithwood et al., 2003; Leithwood & Sun, 2012). Innovations in curriculum and technology are used to engage students and monitor their growth. A sense of community is established when students realize learning is personalized and structured for them (Leithwood et al., 2003; Leithwood & Sun, 2012). Leithwood et al. suggested that tapping into student social capital becomes an asset for the school. School leader can build a culture that fosters innovation by creating a culture that allows for teacher and student leaders. This element implies democratic participation and local control. Moreover, because of the complexity in contemporary educational contexts, an individual leader or small core group of leaders must emerge to set directions, develop people, and develop the organization (Bishop & Mulford, 1996; Leithwood et al., 2003; Sheppard & Brown, 1996).

CHAPTER 3. METHODOLOGY

The purpose of this mixed methods study was to investigate the implementation of an innovative school structure, Hybrid Grouping to determine if it improved student-learning outcomes as measured by mathematics and reading ARMT scores. Additionally, the study was designed to determine the role of the leader in the process, the elements that facilitated or hindered the process, and if implementing an innovation would be perceived by the faculty as a benefit in improving student learning and thus improving the school organizational climate. The specific structures researched were ability grouping and departmentalization. This innovative schedule was designed to determine if Angel Elementary School was able to use school structure to enhance the teachers' ability to meet the needs of all students. Based on the literature reviewed, there are key questions that lay the foundation for this study. The overarching question was to determine if the implementation of the innovation of hybrid scheduling would support increased student learning outcomes. The following questions were addressed:

1. To what extent do the teachers view the differences in school leadership and school climate before and after program implementation?
2. What are the primary benefits as perceived by the teachers?
3. What is the relationship between hybrid grouping on math and reading achievement as measured by the ARMT scores?
4. In regards to the hybrid grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?

The above questions were addressed in a mixed methods study.

Research Design

In this study, the researcher used a mixed methodology approach to answer the research questions. By using both qualitative and quantitative methods, there is no limit to the concepts and methods that will be used to answer the research questions. Creswell (2003) described quantitative methods as collecting, analyzing, interpreting, and writing the results of the study. Qualitative research takes the research beneath the surface. It is the approach that allows for the understanding of emotions and motivations of those being researched. Observations, interviews, and surveys were used to conduct the study. The decision to use the mixed method design allows the reader to gain an understanding of the questions under study.

Setting

Angel Elementary School (a pseudonym) is a public, rural elementary school. It was built in 1966 with 14 classrooms. Since 1973, Angel Elementary School has been fully accredited. At the time of data collection, the enrollment was 560 students. The faculty and staff of Angel Elementary School strive to establish strong partnerships with parents and members of the community through the Parent Teacher Organization (PTO). Some of the programs that promote community involvement include (a) The Great American Can Round up, (b) Grandparents' Day, (c) American Education Week, (d) Read across America, and (e) Earth Day celebrations. Angel has great relationships with various resource people who have assisted in enhancing the instructional programs. These relationships include (a) Drug Abuse Resistance Education Officers, (b) Coffee County Extension Agent, (c) the City of Enterprise's Fire House, (d) Fort Rucker Director of Public Works, and (e) the Human Resource Department from Lowe's and Alabama Power Company.

Because of the quality of programs, Angel Elementary School received monetary awards and grants from Wal-Mart, Lowes, Home Depot, Coca Cola, and their Alabama State Representative. The grants helped fund many enrichment opportunities available to the students at Angel. Some of the programs are (a) Student Government Association, (b) Angel Music Express, (c) Beta Club, and (d) Art Club. Angel City School System has adopted a system wide mission statement: Preparing student graduates to be successful in realizing their personal, educational, and professional ambitions.

Angel Elementary School enjoyed six years of significant academic progress. It was evident that that the brighter students were being successful on the Alabama course of study standards, but there was a desire to move the brighter student to higher academic achievement. Data had indicated a possibility of stagnant academic growth for the challenge students. When facing the challenge of moving the brighter students to higher academic achievement or staying stagnant in academic growth, it was evident the brighter students were successful on the Alabama course of study standards. In stretching the instruction to challenge students, faculty and administrators wanted to continue to meet the needs of benchmark and intensive students.

Traditionally, Angel Elementary School has been known for having an outstanding special education program and truly moving the struggling students to meet their potential. When making change to encompass all students, the concern was the challenge of students not being pushed to their potential. Angel's leadership team decided to devise a schedule that targeted instructional time to teach the grade level content standards and a time to differentiate instruction that stretched student learning. The schedule was adapted and later known as the hybrid schedule. This hybrid schedule allowed each homeroom teacher to instruct a self-contained reading or math class for 45 minutes. After the 45-minute whole group period, a bell

would ring and the students would walk to an achievement-based flexible grouping. This group was set up based on a rubric containing Alabama Reading and Math Test, Stanford Achievement Test, and previous school years scores. The groups are fluid depending on the student's achievement throughout the year. Each teacher is assigned a group; he or she then teaches the students daily for 45 minutes. Instruction was determined by either the skill each student was lacking or the skill the student needed to be challenged on. Some of the students need to be pushed and others need to be caught up. The goal, the hybrid schedule, would allow teachers to focus on every child and his or her independent needs. The leadership teams' concern with the schedule was that the intensive students, who have done so well in the past, might not improve with the new schedule. This evaluation plan will assess the intensive students' rate of improvement in math while participating in achievement groups.

Angel Elementary School has implemented achievement groups for reading and math. These achievement groups have allowed the teachers to focus on the group's overall needs as well as the individual student's needs. The teachers expect planning more focused lessons for their achievement groups will allow them to target each student's potential and learning needs. It is evident from the benchmark that challenged students are improving because of the achievement groups. The reason for this evaluation plan is to determine if intensive students improve at the same rate that they did in the previous three years.

Role of the Researcher

The researcher is able to use qualitative studies as an instrument of data collection (Denzin & Lincoln, 2003). Data are mediated through a human who is considered the instrument. Greenbank (2003) explained that the qualitative researcher needs to describe him or herself along with biases, assumptions, expectations, and experiences that qualify him or her for

the ability to conduct the research. It is important for a researcher to address his or her personal interest in the study, so he or she can eliminate personal experiences from the study as much as possible; this is called bracketing (Giorgi, 1997).

Participants

After receiving approval from the superintendent of education of Enterprise City Schools, I met with the Principal of Angel Elementary School (a pseudonym) and delivered consent letters that described the proposed research (see Appendix A). The teachers at Angel are familiar with hybrid grouping and will probably be willing to participate in the study. Table 1 identifies the participants in this study.

Table 1

Teacher Participants

Teachers	Years of Experience
3rd grade teacher	11-15
3rd grade teacher	6-10
3rd grade teacher	16-20
4th grade teacher	11-15
4th grade teacher	11-15
4th grade teacher	0-5
5th grade teacher	11-15
5th grade teacher	11-15
5th grade teacher	6-10

(table continues)

Table 1 (continued)

Teachers	Years of Experience
6th grade teacher	21-25
6th grade teacher	16-20
6th grade teacher	26-30
Guidance Counselor	11-15
Principal	16-20

Significance of the Study

The purpose of this research was to determine the factors that assisted and hindered the school innovation of hybrid groups and to determine teacher's perceptions of the role of the leader in the process, and the influence of hybrid grouping on student learning. The findings will confirm the practices currently used at Angel Elementary School. School administrators and teachers will determine if hybrid grouping maintained the continued success of intensive students on the ARMT test while improving the learning of their benchmark and challenge students. This study will offer the administrators data on the organizational structure and teachers' perceptions. The study will also add to the literature concerning the role of the school leader in determining and implementing school change initiatives.

Data Collection

This study will use multiple forms of data to address the four research questions. The data sources will be used in combinations to answer each of the four questions. Data sources were; Angel PRIDE Survey, Angel Teacher Perception Survey, Interviews, and Student learning data from the Alabama Reading and Math Test.

Angel Elementary Pride Survey

The Pride Survey was administered to all faculty and staff at Angel Elementary School in the spring of 2011 and again in the spring of 2012. The Pride Survey was created in 1982 with the purpose to help local schools to measure crucial issues that can affect learning, such as family, safety, activities and more. Angel Elementary administered the Teaching Environment Survey. The Pride School Survey was given in Spring 2011 to all teachers at Angel Elementary before the implementation of Hybrid Grouping and then again in the Spring 2012 after the implementation of Hybrid Grouping. The Pride survey consisted of 50 questions that were used to determine teacher perceptions of leadership and organizational climate, 20 questions assessed school leadership, and 30 questioned school climate. The School Survey included the following:

- School Leadership
- School Climate

Interviews

Interviews were used as a source of data collection so that teacher perception of the implementation of Hybrid Grouping. There were predetermined questions however, this interview allowed questions to emerge during the course of the interview giving the flexibility to add new questions and to replace pre-established questions based on the responses of each participant. Each question was based on past experiences and the conceptual frameworks.

Probing was used to ask for more details, for clarification, or for examples as the Interview progressed. An audio recording of the interviews were used for data collection. The interviews were then transcribed from the audio recording within 48 hours. After each interview was transcribed they were coded by using MAXQDA12. Once the interviews were coded the data was used to determine how it was used to answer the research questions.

Teacher Perception Survey

The Teacher Perception Survey contained 13 questions; each question had four options to choose from. The teachers selected an option that indicated the degree to which they agreed to the statement on the survey: 1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree. Teacher Perception Survey was also used to determine the benefits of Hybrid grouping as perceived by the teachers. The Angel Elementary School Teacher Perception survey was administered in the spring of 2012 after a complete school year of implementation of Hybrid Grouping. The survey contains, statements concentrated on the Hybrid Schedule compared to the traditional schedule. The data collected from the Teacher Perception Survey compared teacher perceptions of the traditional self-contained schedule to the Hybrid Grouping. The Angel Teacher Perception Survey identified key elements concerning their perception of the schedules.

Alabama Reading and Math Test

Data used for this portion of the study came from three cohorts of Angel Elementary School Students. Data analyzed for this study consisted of student results on the reading and math test of the ARMT from spring 2011 to spring 2012. The scores of three cohorts were retrieved for a period of one year. Student data used consisted of 3^{rd} to 4^{th}, 4^{th} to 5^{th} and 5^{th} to 6^{th} grades. The study assessed the benefits of the implementation of Hybrid Grouping based on ARMT scores following the administration of the spring 2012 ARMT administration. Student scores were (1) does not meet proficiency, (2) partially meet proficiency, (3) proficient (4) exceeding prior to the implementation of Hybrid Grouping. Of the six sub-grade level Wilcoxon Signed-Ranks Test on Signed-Ranks Test, all were significantly more positive at the end of one year of Hybrid Grouping except for 6^{th} grade mathematics and 4^{th} grade reading. The results of the ARMT are posted on the Alabama State Department of Education (ALSDE) website;

however, it does not offer individual student data. The researcher received permission from the superintendent of Angel Elementary School to gain access to this data. As part of the study, interviews were scheduled for the principal, four teacher leaders and the guidance counselor. Table 2 describes that data used to answer each research question.

Table 2

Data Collection Instruments and Research Questions

Research Question	Data Collection Instruments
1. To what extent do the teachers view differences in school leadership and school climate before and after program implementation?	Angel PRIDE Survey Interviews
2. What are the primary benefits as perceived by the teachers?	Interviews Teacher Perception Survey Artifacts: Teacher Interest Survey
3. What is the relationship between hybrid grouping on math and reading achievement as measured by the ARMT scores?	ARMT Student Data
4. In regards to the Hybrid Grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?	Angel PRIDE Survey Interviews

CHAPTER 4. FINDINGS

Introduction

This is a mixed method study conducted at an elementary school located in southern Alabama. Angel Elementary School is a First through Sixth Grade Title I School. Hybrid Grouping was implemented during the 2011–2012 school year. For this research study the Hybrid Grouping innovation was couched in a conceptual model focusing on child development and organizational theory. Understanding how children develop while in the early grades is important when considering the organization structure of schools, student experiences and student success.

Purpose of the Study

The purpose of this study was to investigate the implementation of an innovative school structure, Hybrid Grouping, to determine if it was related to improved student-learning outcomes as measured by mathematics and reading ARMT scores. Additionally, the study was designed to determine if implementing the innovation would be perceived by the faculty as a benefit in improving student learning and thus improve the school organizational climate The study also examined teachers' perceptions of the role of the school leader and whether they perceived differences in school climate and in the school leader before an after program implementation. The specific structures of the hybrid innovation included ability grouping, departmentalization and attention to the individual needs of all students. The individual student needs were organizationally addressed through a time period of the day called *specials*. A final factor

considered in this study was the role of school leadership in the implementation phase of the innovation.

Research Questions

The following research questions served as the foundation of the study:

1. To what extent do the teachers view differences in school leadership and school climate before and after program implementation?

2. What are the primary benefits as perceived by the teachers?

3. What is the relationship between hybrid grouping on math and reading achievement as measured by the ARMT scores?

4. In regards to the hybrid grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?

Context of Study and Demographics

The Community

The population of the southern Alabama community is 26,562. The community is located in southeast Alabama, 80 miles south of Montgomery and 85 miles north of Panama City, Florida. The elementary school chosen for this study is located near the Fort Rucker, Alabama military base. One of the greatest challenges is being located near a military base because of the tremendous number of transient students in the school. On average, the school system under study has an average transient student rate of 18% because of military duty transfers.

The School

Angel Elementary School is a public, rural elementary school. Built in 1966, it has fourteen classrooms. Currently there are twenty-eight regular classrooms with seven resource

rooms, four office areas, a library, a health room, and a cafeteria. Angel has been fully accredited since 1973. Enrollment during the 1973 school year was 484. During the 2011–2012 school year enrollment was 560 students.

The faculty and staff of Angel Elementary School strive to establish strong partnerships with parents and members of the community through their Parent Teacher Organization (PTO). Some of the programs that promote community involvement include: The Great American Can Round-up, Grandparents' Day, American Education Week, Read across America, and Earth Day celebrations. Angel has strong relationships with various community resource people who have assisted in enhancing their instructional programs. These included: D.A.R.E Officers, Coffee County Extension Agent, Fort Rucker Director of Public Works, and the Human Resource Department from Lowe's and the Alabama Power Company.

Angel has received monetary awards and grants from Wal-Mart, Lowes, Home Depot, Coca Cola and the Alabama State Representative to engage in program enhancement and improvement in the school. These grants have funded many enrichment opportunities for the students at Angel. Some of the Programs are: Student Government Association, Angel Music Express, Beta Club, and Art Club. The Angel Elementary school district adopted the following mission statement: "Preparing student graduates to be successful in realizing their personal, educational, and professional ambitions."

At the time of the study, 2011–2012, Angel Elementary was staffed with a principal, an assistant principal, a guidance counselor, a librarian, an instructional coach, a registered nurse, a Spanish teacher, a music teacher, a speech teacher, a gifted education teacher, a physical education teacher and a Title I Coordinator and classroom teachers. There were four teachers in each grade level and two special education teachers. Educational aides assist teachers in the

intensive classrooms along with the special education teachers. The Angel support staff consisted of two secretaries and two custodians.

All teachers were classified as highly qualified based on the state of Alabama credentialing system and received professional development to maintain a current Alabama certificate. Each grade level had common planning for the purpose of instructional preparation, communication across classrooms and attending weekly data meetings. Angel devised a schedule that targeted instructional time to teach the grade level content standards and a time to differentiate instruction. The schedule was called the Hybrid Grouping. This Hybrid Grouping allowed each homeroom teacher to instruct a self-contained reading or mathematics class for forty-five minutes each day. After the forty-five minute whole group, the students participated in an achievement-based flexible grouping session. The flexible grouping was set up based on a rubric containing student data. The groups were fluid, depending on the student's achievement throughout the year. Each teacher was assigned a group and taught the students daily for forty-five minutes. Instruction was determined by either the skill each student was lacking or the skill the student needed be challenged on. The belief was that some students needed to be pushed and others needed to be given more guided assistance. Angel hoped to use the structure of the Hybrid Grouping to help teachers focus on every child's need.

Participating Teachers

Twenty certified teachers were represented in this study. The teachers were involved in the implementation of the Hybrid Grouping at Angel Elementary School. The participant's years teaching experience ranged from one to thirty-one. Participant college degrees ranged from Bachelor's Degree to Master's Degree (Table 3).

Table 3

Teacher Demographics

Teacher	Gender	Years at Angel	Highest Degree
1	Female	11–15	Bachelors
2	Female	6–10	Masters
3	Female	16–20	Masters
4	Female	11–15	Masters
5	Female	16–20	Bachelors
6	Female	26–30	Masters
7	Male	11–15	Masters
8	Female	16–20	Masters
9	Female	6–10	Masters
10	Female	30 plus	Bachelors
11	Female	11–15	Masters
12	Female	21–25	Masters
13	Female	11–15	Bachelors
14	Female	0–5	Bachelors
15	Male	11–15	Masters
16	Female	11–15	Bachelors

Data Collection Instruments

Research questions were addressed by using a mixed methods approach. Because of the research questions under consideration employing both qualitative and quantitative methods was

necessary (Creswell, 2003). For example, in the present study the researcher was interested in possible student learning outcomes as measured by mathematics and reading ARMT scores as well as the possible influence of leadership in influencing faculty to implement an innovation known as Hybrid Grouping. The phenomenon appeared related and therefore important to measure both (Teddlie & Tashakkoni, 2012). Table 4 outlined the data used to answer each research question.

Table 4

Data Collection Instrument and Research Questions

Research Question	Data Collection Instruments
1. To what extent do the teachers view differences in school leadership and school climate before and after program implementation?	Angel PRIDE Survey Interviews
2. What are the primary benefits as perceived by the teachers?	Interviews Teacher Perception Survey Artifacts: Teacher Interest Survey
3. What is the relationship between hybrid grouping on math and reading achievement as measured by the ARTMT scores?	ARMT Student Data
4. In regards to the Hybrid Grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning	Angel PRIDE Survey Interviews

and implementing the innovation?	

Angel Elementary Pride school survey. The Pride School Survey was given in Spring 2011 before the implementation of Hybrid Grouping and then again in the Spring 2012 after the implementation of Hybrid Grouping. The Pride survey was used to determine teacher perceptions of leadership and organizational climate. Leadership is recognized as second only to exemplary teaching in regards to increasing student achievement (Jacobson, 2011). Having a climate that fosters a safe and nurturing learning environment for students and teachers was of interest because it has been shown to influence successful implementation of innovations (Fullan, 2014) The Pride School Survey included the following:

- School Leadership
- School Climate

Angel Elementary teacher interest survey. The Teacher Interest survey was compiled by the researcher and given prior to the implementation of Hybrid Grouping. The survey was administered to determine each teachers subject interest and skill. Placing teachers in a subject that they were interested in and felt confident teaching was important to the implementation process.

Items 1–9 rated the subject interest and qualifications of each teacher

Items 11–13 rated the grade level preference and qualification of each teacher

Item 13 rated each teachers interest in school committees

Teachers responded using as scale from 1–5. One represented low interest and five represented the highest interest.

Alabama reading and mathematics test (ARMT). The ARMT is a summative

assessment instrument developed by the state of Alabama which tests mathematics and reading skills. It was that is administered to students in grades 3–6 at Angel Elementary School. The ARMT data used in this study was from the spring of 2011 and the spring of 2012. This data was used to examine if the implementation of Hybrid Grouping was correlated with ARMT mathematics and reading scores.

Interviews. Eight of the participating teachers were interviewed for approximately 30 minutes. The interviews consisted of questions pertaining to the teacher's experience with the Hybrid Grouping implemented at Angel Elementary. The interview data were first transcribed and then categorized/coded using MAXQDA12. Codes were identified from the teacher interview responses and these indicated there were four themes extrapolated from the codes. What question was it addressing? The four themes which emerged were: Teaching to Their Strength, Leaders Role in Developing People, School Culture and Innovation for Student Growth.

Research Question 1: To what extent do the teachers view the differences in school leadership and school climate before and after program implementation?

The Angel pride survey. The two dimensions from the Pride Survey, leadership and climate, were used to assist in answering the first research question. The researcher used interviews and the Teacher Perception survey as additional data sources for the first research question.

The Angel Elementary School Pride Survey was administered in the spring of 2011 prior to implementation of Hybrid Grouping and again in the spring of 2012 after implementation of the Hybrid Grouping. The data collected from the Pride Survey, 2011, served as baseline data to

determine the state of school climate prior to implementation. The 2012 Angel Pride Survey was used to determine the state of the school's climate after implementation of Hybrid Grouping.

In order to assess whether or not teacher perceptions of school leadership changed after implementation, the researcher completed a two level within subjects Analysis of Variance (ANOVA). Alpha was set at .05. Results were statistically significant, $F(1,3) = 34.961.$, $p < .005$ with the mean score for year 1 lower than that of year 2 (see Table 5 for means and standard deviations). Thus, results indicated teachers had a more positive attitude toward the school's leadership after implementation than febore. Additionally, the effect size was large, partial $eta^2 = .648$, suggesting that results are meaningfully different. The school leadership dimension significantly changed during implementation. Teachers perceived leadership to be more positive and supportive.

Table 4

Means, Standard Deviations and n on the Attitudes Toward Leadership during the Implementation of Hybrid Grouping

Leadership	n	Mean	Standard Deviation
2011	20	3.1793	.50043
2012	20	3.7230	.20754

School Climate

The 2012 Angel Pride Survey also identified school climate as a key facilitator in implementing Hybrid Grouping. In order to assess whether or not school climate changed during implementation the researcher completed a two level within subjects Analysis of Variance

(ANOVA). Climate was set as the dependent variable with alpha set at .05. Results were statistically significant, $F(1,2) = 39.708$, $p < .001$ with the mean score for year 1 lower than that of year 2 (see Table 6 for means and standard deviations). Thus, results indicated that after implementation of Hybrid Grouping teachers developed a more positive attitude toward school climate. Additionally, the effect size was large, partial $eta^2 = .578$. This suggested that results are meaningfully different and school climate was perceived by teachers as more positive after implementation of the Hybrid Grouping.

Table 6

Means, Standard Deviations and n on the Attitudes Toward School Climate during the implementation of Hybrid Grouping

School Climate	n	Mean	Standard Deviation
2011	30	3.3844	.30562
2012	30	3.3844	.36680

Interviews

The significance of leadership and climate as facilitators in implementing the innovation were supported by interview data. In fact, two of the four themes extrapolated from the interviews were directly related to leadership and climate. Those two themes were Leaders Role in Developing People and School Culture. The interview data indicated that leadership and school culture stimulated the implementation of the Hybrid Grouping. Prior to implementation there were multiple faculty meetings, data meetings and leadership meetings. Each of these meetings provided information for the administrative staff and leadership team to evaluate a

smooth transition from self-contained classrooms to a Hybrid model. Participant P10 stated:

> Having excellent guidance at the top level and support makes all the difference in the world. Children know that there is someone in the building that's supporting the teachers and keeping an eye on things making sure things are on track. I think it makes for a great environment all the way around.

The leadership team was made up of a grade level representative from each grade along with the guidance counselor and principal. This team met multiple times charting a path to overhaul the traditional schedule while at the same time maintaining a positive culture amongst the faculty and staff. Participant P18:

> I think because of the leadership we were willing to accept and try anything to make things better for kids. So I think for students it built their self-esteem.

One of the most important factors regarding school structure and change in school schedules is the importance of leadership (Leithwood, 2006). When asked about the implementation of the Hybrid Grouping, teachers responded by discussing the importance of trust in the leadership and the willingness to embrace change for the benefit of the students. P11 noted:

> It had a positive impact, first, because the teachers had a choice. The survey we took at the beginning, we could mark what we prefer to teach. That always helps the teachers' attitude, because it's something they enjoy. That improved overall environment. If the teachers are happy, the school will normally be happy. The teacher could become an expert in that subject area, because that what they had to plan. That's where their focus was. It made our school more focused, because everybody knew their part.

P19 also stated:

> We did a survey to survey the teachers' interests and our strengths and weaknesses, I believe, were also asked on that survey so that you could get introduced to small groups and hands-on activities.

This survey was administered to determine each teacher's subject interest and skill. Placing teachers in a subject that they were interested in and felt confident teaching was the purpose of the survey. Angel administration and the leadership team were able to evaluate the surveys and place teachers in either their 1st or 2nd choice of subject or grade level each teacher preferred. Each teacher was aware of the subject and grade level they would teach prior to getting out for the summer of 2011. P9 stated:

> Well as far as the teachers, we were all asked what areas we have interests in and would prefer teaching. We all talk about what we thought that we would be able to help the children more. If you're interested in something more it's usually easier to teach it.

The leadership team believed that elementary teachers, just like secondary and post-secondary teachers, had subjects of preference. The team departmentalized Angel with the intention of capturing teacher interests while tapping into the teacher skill to teach multiple abilities of students. P17 stated:

> I remember that we had a little form or survey asking what areas we liked to teach the most, what we felt we were strongest in, and the area we preferred. Like if you were a mathematics person or a reading person or a science person, you could work in that field. We were doing what we liked most.

Teachers struggled with the 3-tiered instruction model in the self-contained classroom. The challenge they had was planning tiered lessons for Mathematics, Reading, Language,

History and Science. Planning these lessons for each subject accounted for planning 15 lessons daily. Teachers shared their concerns with the building leadership team and the team started to explore departmentalization along with grouping. A teacher interest survey was given evaluate subject preference and skill level. P17 stated:

> We loved it because I remember Anita loved mathematics and she loved teaching them mathematics. We were all real happy that year.

The Hybrid Grouping implemented the 3-tiered instruction model; however, it only required each teacher to plan four lessons per day rather that fifteen. This happened as a result of combining departmentalization and ability grouping. P19 stated:

> Everybody just got excited about everything that was happening and everybody just wanted to do anything they could. It was like teamwork. It wasn't students getting more excited about learning and I think you would. It felt way more rewarding because we felt that we were helping students more.

Angel elementary teacher perception survey. The Angel Elementary School Teacher Perception survey was administered in the spring of 2012 after a complete school year of implementation of Hybrid Grouping. The data collected from the Teacher Perception Survey served as a measure of teacher perception of traditional self-contained schedule compared to the Hybrid Grouping. The researcher was able to identify key faculty perceptions concerning preferences towards a traditional or Hybrid Grouping schedule.

In order to assess whether or not teacher's perceptions toward Hybrid Grouping differed at a statistically significant level, we completed a two level within subjects Analysis of Variance (ANOVA). Alpha was set at .05 and results were statistically significant, $F(1,15) = 229.364$, $p < .001$ with the mean score for self-contained being lower than that of hybrid (see Table 7 for

means and standard deviations). Thus, results indicated that teachers have a more positive attitude toward Hybrid Grouping than they do self-contained classes. Additionally, the effect size was large, partial eta^2 = .997, suggesting that results are meaningfully different and implementation of Hybrid Grouping was worthwhile to the teachers.

Table 7

Means, Standard Deviations and n on the Attitudes Toward Implementation of the Hybrid Grouping versus Self-Contained

Schedule	n	Mean	Standard Deviation
Self-Contained	16	2.0417	.21517
Hybrid	16	3.2500	.20184

Research Question 2: What are the primary benefits as perceived by the teachers?

When determining the perceived benefits of Hybrid Grouping, the researcher relied upon results from the faculty interviews and artifacts such as the teacher interest survey.

The researcher used interviews to address the findings concerning the primary benefits. From the interviews and the themes, which were extrapolated, the researcher was able to identify benefits of the Hybrid Grouping innovation. Two of the benefits taken from the interviews were Innovation for Student Growth and Teaching to Their Strength.

Innovation for student growth. Hybrid Grouping aligns with Piaget's theory by creating a school structure that empowers teachers and facilitates the learning needs of every student. Following multiple data meetings, leadership team meetings and grade level meetings, the Angel Faculty and staff recognized the difficulty of meeting the needs of every student.

There was consensus among the faculty that struggling students in self-contained classrooms were the focus of instruction. Student who were doing well were or who were gifted were not receiving the enrichment they deserved. These students in Hybrid Grouping received enrichment and became known as the *Challenge* group. This meant enrichment activities in mathematics and reading were offered daily. Additionally, the gifted education teacher met with each group of *Challenge* students as a co-teacher in grades 3rd thru 6th. P11 stated:

> It had an impact on the two top, the gifted, because they were able to move forward. They could do things that the other groups could not do, and it was more challenging for them. They enjoyed it more…for everybody else to catch up. Then the lower group, it gave them more ... What's the word I'm looking for? Confidence. They knew they needed their group. They showed lots of growth.

The groups were flexible and student moved daily and weekly to different groups. If a student had already mastered a standard they moved to the challenge group. In some instances special education students met in the challenge group so they could receive enrichment instruction because they master the standard that was taught during the self-contained portion of their day. P19 stated:

> I would also like to tell you the benefits for the benchmark and challenge group because we've had some very bright students at Angel and if they had just been getting that whole group, I almost refer to it as whole group structure, they would not have been put to what they were capable of. So, in the benchmark and the challenge group, I was able, during the small group time when they were coming by their level, I was able to pull activities that took them above sixth grade and a lot of challenge activities. Doing things to challenge those brighter students was very beneficial as well. It wasn't just that the

students were struggling and not on grade level it was not beneficial for them. The gifted teacher really liked to work with the grade level teachers with her students that were in the program. She didn't like to just pull them in to the resource room or gifted, she liked to work with us on our grade levels in our classrooms as well. She came in and did stuff in the classroom when we were doing those things as well because it kind of pulled in to her part too.

Teachers expressed the need for assistance from the gifted education teacher because prior to Hybrid Grouping they did not have experience planning enrichment lessons. The structure of the Hybrid Grouping had a tremendous organizational impact on maximizing the services of special education teachers, gifted education teachers and aides. P10 stated:

> When you've got students grouped you know just say you've got your high achiever group who a lot of times get left behind because you're pouring so much into that low achieving group that you've got to get pulled up. When you've got them groups like that you can just take them and run with it and do so many more things with them that they deserve to get to do. Challenge kids benefited because they the experience of doing various things that they probably wouldn't have got to experience in their regular homeroom class.

P18 added:

> Well, with the challenge group I was able to do novel studies. They didn't need to be taught how to read because they were strong readers anyway. We just focused on skills, but we would take a novel and then bring out reading skills within that novel.

Hybrid Grouping permitted teachers to focus on one subject to specialize in. This method allowed teachers to target professional development and planning with proficiency. P18 stated:

> You could become a master as a teacher in that subject area, rather than spreading yourself out so thin, and I think the kids, with focused and tailored for their level. I did see a lot of improvement and even though I probably worked with 75 kids, I knew who knew their Fry words, who needed to work on fluency, who need this, who need that, because you're constantly pulling them back to the table, or back then we were. The teacher has to come up with test; teachers try to be a little expert in all those areas so to me this would benefit a new teacher.

P10 added:

> I think that we really enjoyed being able to key in on just a couple of subjects you know to put your best foot forward, instead of trying to spread ourselves amongst 6 different subjects. As far as being able to really hone in on two specific subjects I felt like I could really do a better job myself with those subjects. But I also feel like when they're all mixed up all different levels together they can feed off of each other as well. And I feel like I do a better job with that instead of trying to spread myself so thin with so many times a day I feel like I can hone in on those particular students better.

P18 added:

> To me it kind of made me really think more about what I was teaching. Usually when I was teaching and we were rotating the whole group, I have to teach the same thing over and over and over again.

Teachers appear to believe that they can teach to their passion when using Hybrid Grouping. They can teach a subject that they are passionate about with a focus that helps student learning.

Angel elementary teacher perception survey. A second data set, the *Teacher Perception Survey*, was also used to determine the benefits of Hybrid grouping as perceived by the teachers. The *Angel Elementary School Teacher Perception* survey was administered in the spring of 2012 after a complete school year of implementation of Hybrid Grouping. The survey contains, statements concentrated on the Hybrid Schedule compared to the traditional schedule. . The data collected from the *Teacher Perception Survey* compared teacher perceptions of the traditional self-contained schedule to the Hybrid Grouping. The *Angel Teacher Perception Survey* identified key elements concerning their perception of the schedules.

In order to assess the benefits of Hybrid Grouping as perceived by the teachers, the researcher completed a two level within subjects Analysis of Variance (ANOVA) with the scores on the attitudes scale as the dependent variable. Alpha was set at .05 and results were statistically significant, $F(1,15) = 229.364$, $p < .001$ with the mean score for self-contained being lower than that of hybrid (see Table 1 for means and standard deviations). Thus, results indicated that teachers have a more positive attitude toward Hybrid Grouping than they do self-contained classes. Additionally, the effect size was large, partial $eta^2 = .997$, suggesting that results are meaningfully different and implementation of Hybrid Grouping was worthwhile to the teachers.

Table 8

Means, Standard Deviations and n on the Attitudes Toward Implementation of the Hybrid Grouping vs. Self-Contained

Schedule	n	Mean	Standard Deviation
Self-Contained	16	2.0417	.21517
Hybrid	16	3.2500	.20184

Research Question 3: Is there a relationship between Hybrid Grouping and the mathematics and reading scores as measured by ARMT?

Elementary schools across the state of Alabama are required to show adequate yearly progress (AYP) in student achievement as measured by standardized tests. The Angel Elementary school district used ARMT scores to show AYP compliance. One of the main reasons Hybrid Grouping was implemented was to address AYP and improve student-learning outcomes. There were 8 pairs of data examined to answer the third research question.

3a Overall Angel Elementary students 3rd through 6th grade ARMT Mathematics 2011/2012

3b Angel Elementary 3rd-4th grade students ARMT Mathematics 2011/2012

3c Angel Elementary 4th-5th grade students ARMT Mathematics 2011/2012

3d Angel Elementary 5th-6th grade students ARMT Mathematics 2011/2012

3e Overall Angel Elementary students 3rd through 6th Grade ARMT Reading 2011/2012

3f Angel Elementary 3rd-4th grade students ARMT Reading 2011/2012

3g Angel Elementary 4th-5th grade students ARMT Reading 2011/2012

3h Angel Elementary 5th-6th grade students ARMT Reading 2011/2012

It is important to note that student scores were proficient (3) or exceeding (4) prior to the implementation of Hybrid Grouping. Out of a student test data set of 221 students only 12 students had prior ARMT scores of 2 (partially met) and Angel Elementary had no student ARMT scores of 1 (does not meet). After implementation of Hybrid Grouping for one year there was a significant positive difference in student ARMT designations. Of the six sub-grade level Wilcoxon Signed-Ranks Test on Signed-Ranks Test, all were significantly more positive at the end of one year of Hybrid Grouping except for 6th grade mathematics and 4th grade reading (see Table 9).

Table 9

Level of Significance Comparison Wilcoxon Signed-Ranks Test

	Mathematics	Reading
Overall	YES	YES
4th Grade	YES	NO
5th Grade	YES	YES
6th Grade	NO	YES

On the overall Wilcoxon Signed-Ranks Test data set 3a, Angel Elementary School tested n = 221 students in 4rd through 6th grade on ARMT in mathematics and reading. The two overall Wilcoxon Signed-Ranks Test measures are discussed here. The two mathematics data points (data set 3a) included ARMT Spring, 2011 Mathematics, all grades (prior to implementation of Hybrid Grouping) and ARMT Spring, 2012 Mathematics, all grades (after

implementation of Hybrid Grouping). The data indicated statistical significance was reached in 2012 with more positive differences than negative differences with the median pre-test ranks Z = 2,244.500, $p < .01$. The overall ARMT data set 3a, showed student scores on the ARMT test were positively correlated with the implementation of Hybrid Grouping.

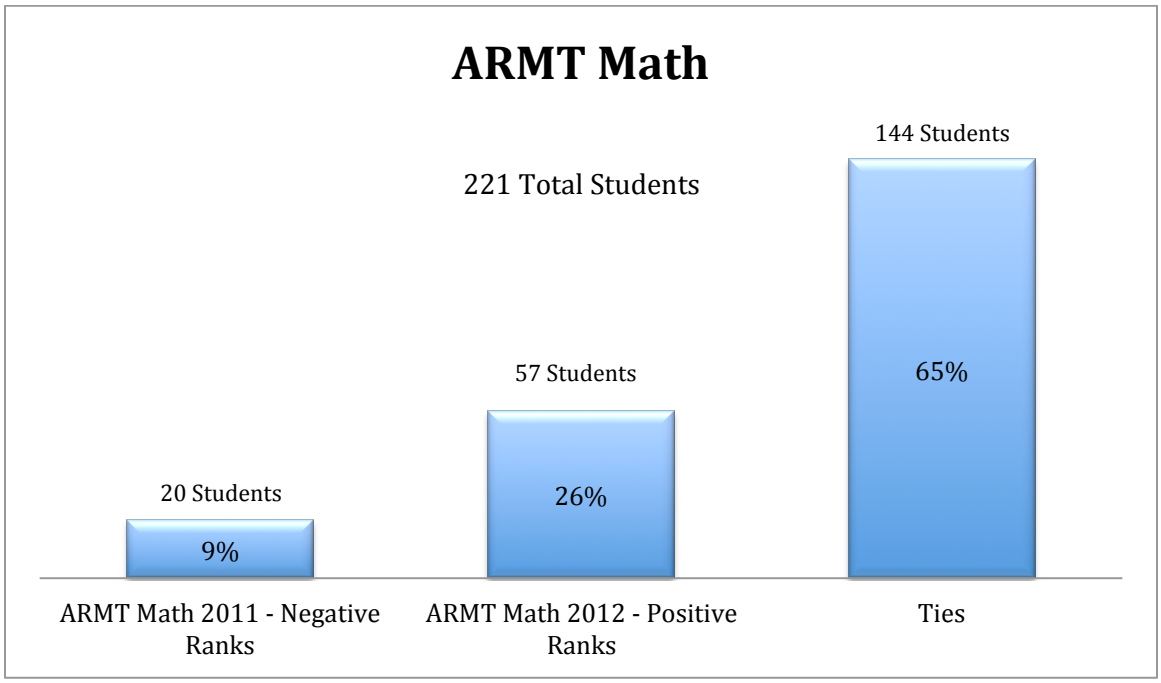

Figure 2. ARMT Math Statistics

Angel Elementary School tested n = 221 students in 4th through 6th grade on the ARMT reading test (data set 3e). The two data points represented are ARMT Spring, 2011 Reading, all grades prior to implementation of Hybrid Grouping and ARMT Spring, 2012 Reading, all grades after implementation of Hybrid Grouping. The data indicated statistical significance was reached in 2012 with more positive differences than negative differences with the median pre-test ranks Z = 917.500, $p < .001$.

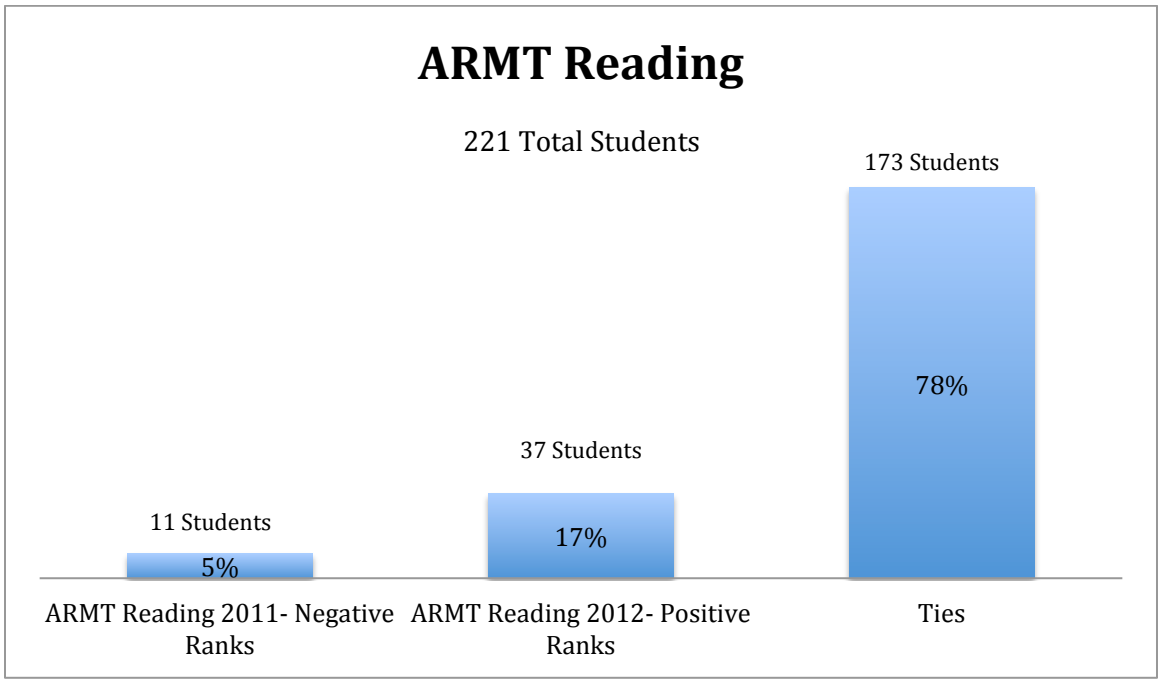

Figure 3. ARMT Reading Statistics

Angel Elementary School tested n = 89, 4th grade students on the ARMT (data set 3b). The two data points represented are ARMT spring 2011 as the 4th graders exited 3rd grade. Implementation occurred as these students entered the 4th grade. The baseline scores were compared to spring end of 4th grade scores. Only students who had complete pre and post scores were used in the analysis. In other words, no student data was included in the analysis unless the child was present for ARMT testing in Spring, 2011 and then again in Spring 2012. The data shows that statistical significance was reached in 2012 with more positive differences than negative differences with the median pre-test ranks $Z = 578.500$, $p < .004$. Data set 3b, showed student scores on the ARMT Mathematics test were positively correlated with the implementation of Hybrid Grouping.

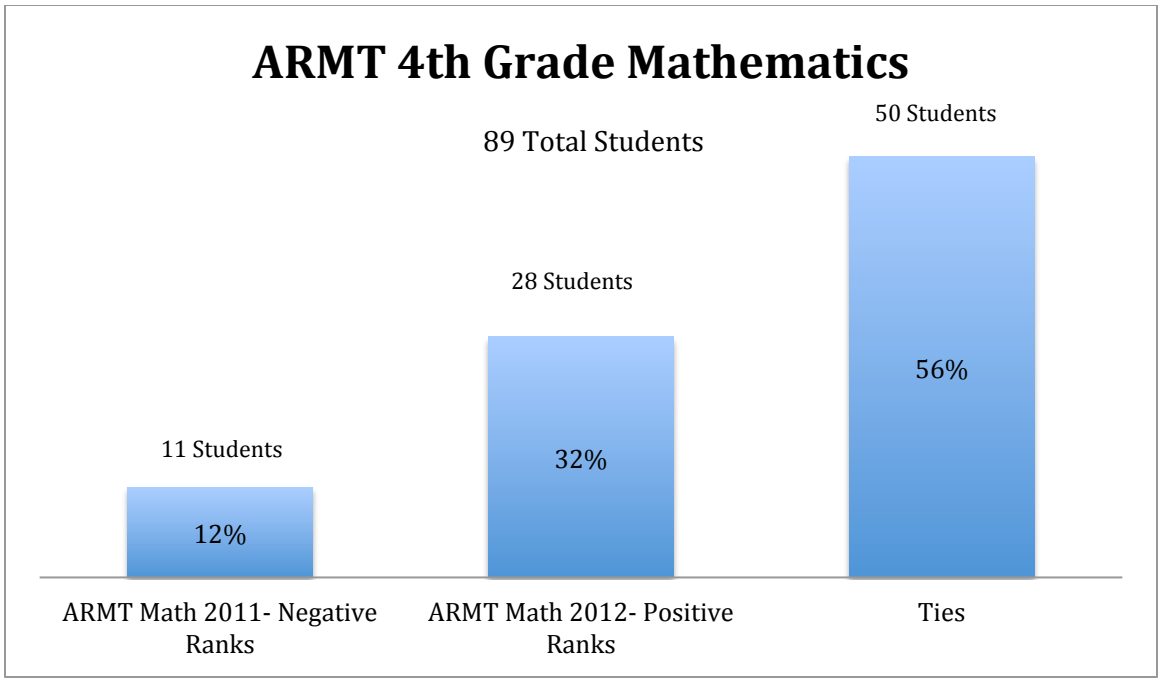

Figure 4. ARMT Math Statistics 4th Grade

Angel Elementary School tested n = 67 5th grade students on the ARMT (data set 3c) 2011 as the 5th graders exited 4th grade. Implementation occurred as these students entered the 5th grade. The baseline scores were compared to spring, 2012, end of 5th grade scores. Only students who had complete pre and post scores were used in the analysis. In other words, no student data was included in the analysis unless the child was present for ARMT testing in Spring, 2011 and then again in Spring, 2012. The data indicated that statistical significance was reached in 2012 with more positive differences than negative differences with the median pre-test ranks $Z = 338.500$, $p < .000$.

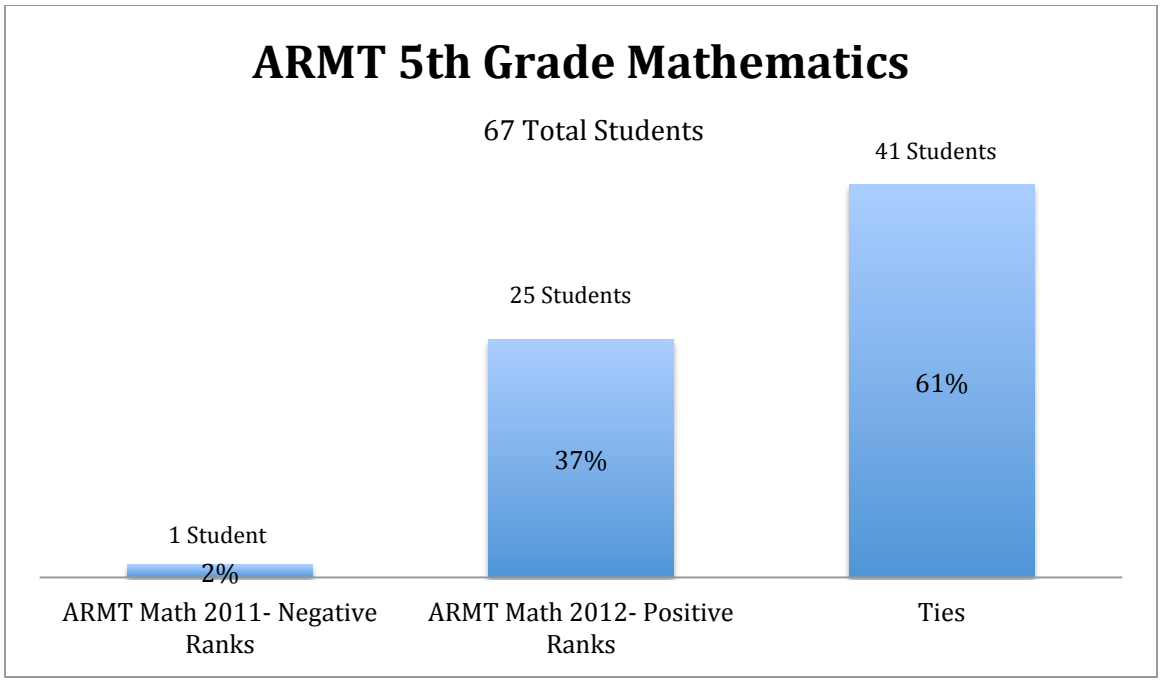

Figure 5. ARMT Math Statistics 5th Grade

Angel Elementary School tested n = 67, 6th grade students on the ARMT mathematics portion (data set 3d) 2011 as the 6th graders exited 5th grade. Implementation occurred as these students entered the 6th grade. The baseline scores were compared to spring, 2012, end of 6th grade scores. Only students who had complete pre and post scores were used in the analysis. In other words, no student data was included in the analysis unless the child was present for ARMT testing in Spring, 2011 and then again in Spring, 2012. The data indicated that statistical significance was not reached in 2012 with less positive differences than negative differences with the median pre-test ranks $Z = 24$, $p < .197$.

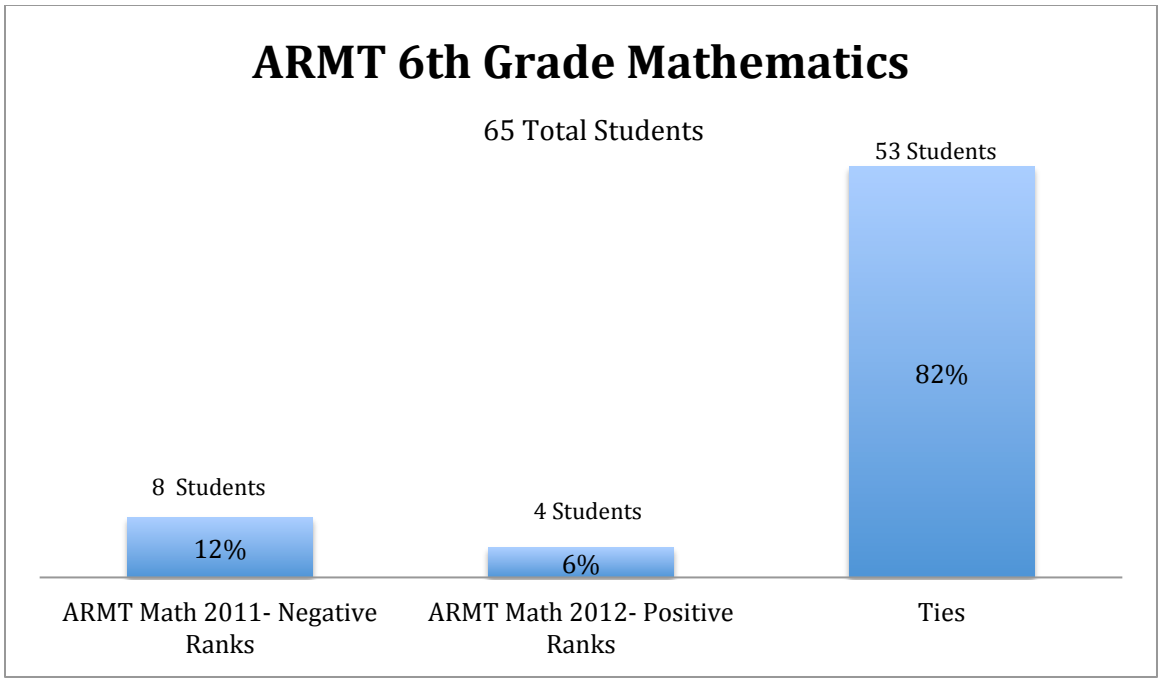

Figure 6. ARMT Math Statistics 6th Grade

Angel Elementary School tested n = 89, 4th grade students on the ARMT reading portion (data set 3f). The two data points represented are ARMT Spring 2011 as the 4th graders exited 3rd grade. Implementation occurred as these students entered the 4th grade. The baseline scores were compared to spring end of 4th grade scores. Only students who had complete pre and post scores were used in the analysis. In other words, no student data was included in the analysis unless the child was present for ARMT testing in Spring, 2011 and then again in Spring 2012. The data indicated that statistical significance was not reached in 2012 with less positive differences than negative differences. The median pre-test ranks $Z = 51.000$, $p < .317$.

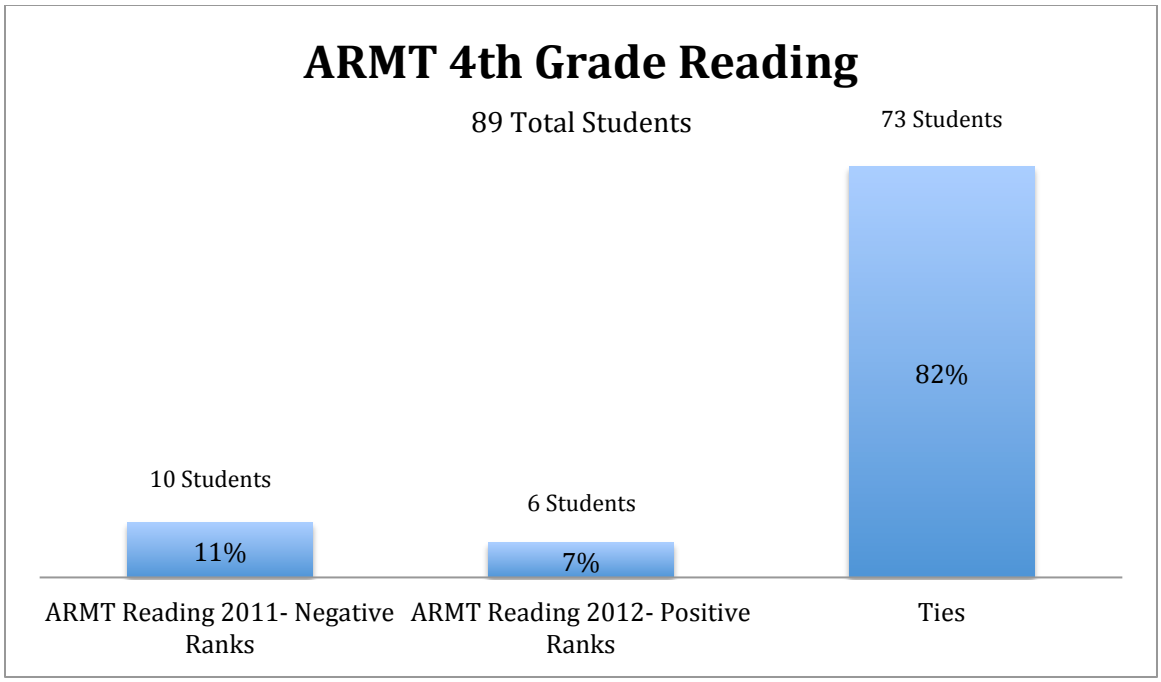

Figure 7. ARMT Reading Statistics 4th Grade

Angel Elementary School tested n = 67, 5th grade students on the reading portion of the ARMT (data set 3g) 2011 as the 5th graders exited 4th grade. Implementation occurred as these students entered the 5th grade. The baseline scores were compared to spring, 2012, end of 5th grade scores. Only students who had complete pre and post scores were used in the analysis. In other words, no student data was included in the analysis unless the child was present for ARMT testing in Spring 2011 and then again in Spring 2012. The data indicated that statistical significance was reached in 2012 with more positive differences than negative differences the median pre-test ranks $Z = 97.500$, $p < .001$.

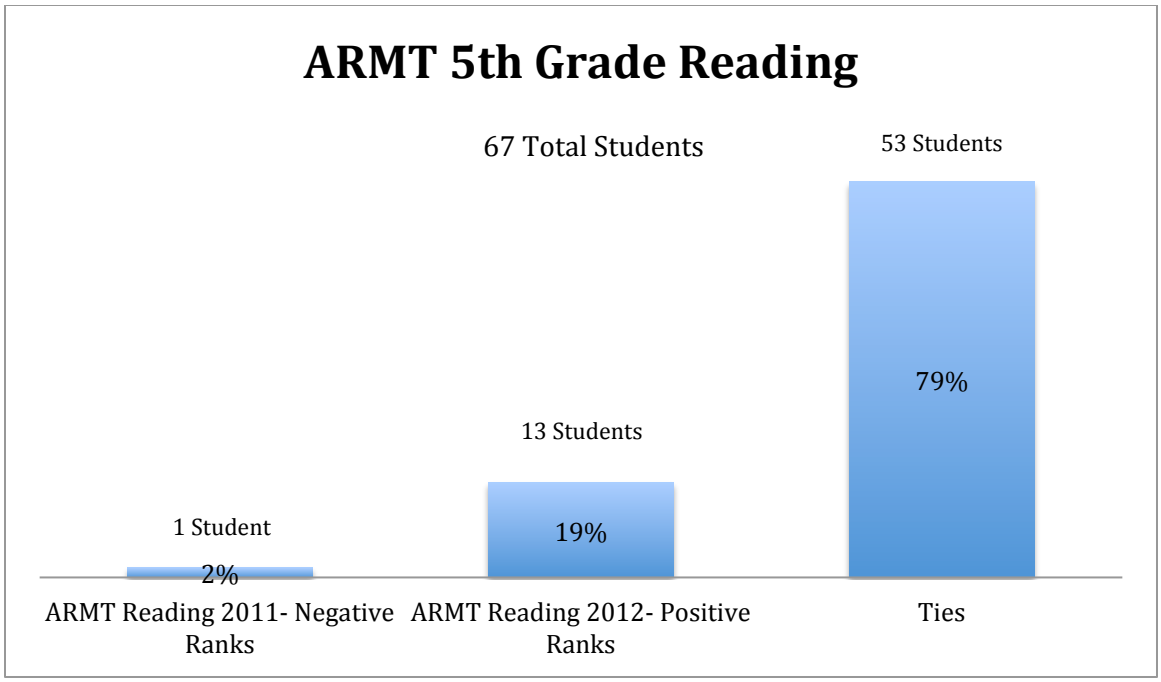

Figure 8. ARMT Reading Statistics 5th Grade

Angel Elementary School tested n = 65, 6th grade students on the ARMT reading portion (data set 3h) 2011 as the 6th graders exited 5th grade. Implementation occurred as these students entered the 6th grade. The baseline scores were compared to spring, 2012, end of 6th grade scores. Only students who had complete pre and post scores were used in the analysis. In other words, no student data was included in the analysis unless the child was present for ARMT testing in Spring 2011 and then again in Spring 2012. The data indicated that statistical significance was reached in 2012 with more positive differences than negative differences the median pre-test ranks $Z = 171.000$, $p < .001$. Sixth grade reading ARMT scores were positively correlated with the implementation of Hybrid Grouping.

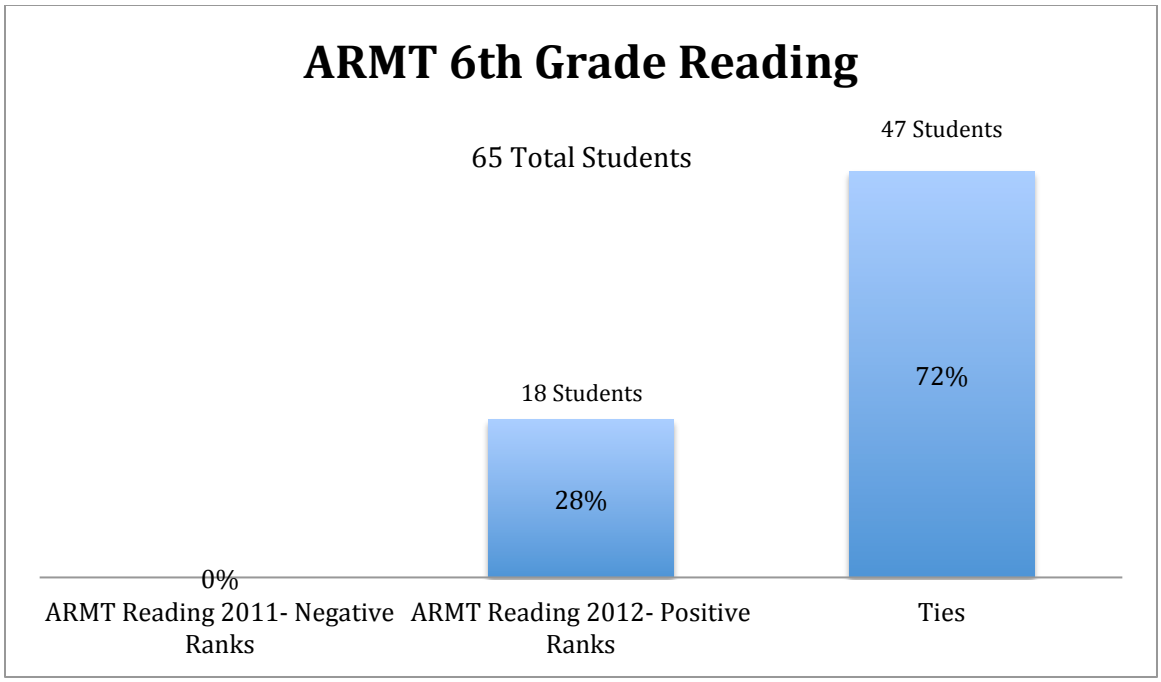

Figure 9. ARMT Reading Statistics 6th Grade

Based upon statistical analysis, six of the eight data pairs showed statistical significance. The overall data for mathematics and reading showed that statistical significance was reached after the implementation of the Hybrid Grouping (see Table 8).

Research Question 4: In regards to the Hybrid Grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?

Angel elementary school pride survey. The Angel Elementary School Pride Survey was administered in the spring of 2011 prior to implementation of Hybrid Grouping and again in the spring of 2012 after implementation of the Hybrid Grouping. The data collected from the 2011 Pride Survey served as a baseline data in determining the state of the school's leadership

and climate prior to implementation. Leadership and school climate were perceived by teachers as more positive after implementation of the Hybrid Grouping.

The researcher completed two levels within subjects Analysis of Variance (ANOVA) of teacher perceptions of leadership. Alpha was set at .05 and results were statistically significant, $F(1,3) = 34.961.$, $p < .005$ with the mean score for year 1 lower than that of year 2 (see Table 10 for means and standard deviations). Thus, results indicated that after implementation of Hybrid Grouping teachers had a more positive attitude toward leadership. Additionally, the effect size was large, partial $eta^2 = .648$.

Table 10

Means, Standard Deviations and n on the Attitudes Toward Leadership

Leadership	n	Mean	Standard Deviation
2011	20	3.1793	.50043
2012	20	3.7230	.20754

The implementation of this model was dependent on the leadership and influence of the school leader and Building Leadership Team. Teachers trust in the principal appeared vital to the complex implementation of this plan. Multiple teachers in this study have taught in a traditional self-contained classroom for most of their career. The implementation plan was organized and presented so that teachers realized that support in the classroom would be methodical and consistent. Each teacher had to trust the principal and his ability to implement and follow through with the structure of the organization.

During the interview process teachers reflected on student data as a result of implementing Hybrid Grouping in their classroom. Teachers felt the innovation and structure of Hybrid Grouping led to student learning growth. P19 stated:

> We immediately started seeing things like our star scores and those types of things that we give, even before we give our standardized tests in the spring, but all of those scores, we just had so many data meetings and that sort of thing. And not necessarily preparing for the standardized test in the spring, but look at this data and let's see how we can help these kids. Let's look at this data and see how we can get the most of this kid so that they will be a better student whenever they go to Coppinville, which was our seventh grade school.

Along with the Hybrid model the leadership team implemented weekly grade level meetings to discuss individual students and review their data. Monthly there were vertical department meetings to discuss each teacher's specific subject. During the vertical meeting teachers evaluated common student weakness and developed action plans to overcome grade level deficiencies. Teachers brought evidence of change from the previous meeting to discuss. P9 stated:

> With the students, we looked at all their STAAR Test scores, their state ARMT scores, and their report card scores, and then based off of that and what we knew about each student, we were able to group them. These groups were flexible. They were able to change groups depending on where they needed to be. It was a priority for teachers to learn the state standards and how the ARMT measured those standards. Angel made a goal not to focus on the growth of the school in student data they monitored each child's growth. Scores were in the 3s and 4s. I think I remember coming into 3rd grade that it

was a struggle in the beginning, getting them prepared for the state tests. I just think that there was more success for the kids because of the Hybrid Grouping.

The Hybrid Grouping was developed with the intention of creating an organizational structure that enhances students and teachers ability to thrive in the classroom. The school leader, building leadership team and teachers discussed this arrangement and forged a partnership to design the schedule to reflect the needs of the students. Without open communication and shared leadership between the building leader and faculty facilitated the new structure. The schedule was constructed in a way that only one reading intensive group and one mathematics intensive group in the school would be meeting per period. This staggered schedule made it possible for four educators to assist in all intensive classrooms. One special education teacher and one special education aide focused on mathematics and one special education teacher and one special education aide focused on reading. These educators were not only specialized by subject however they also worked vertically across grade levels. Like the specialized teachers the special education teacher and the aides were expected to gain expertise in their subject. The support offered in this structure was much greater than previously in the self-contained setting. P9 stated:

> We had the lower groups and everybody had an instructional aide at that time. That was their schedule. Then also, the special education teacher, they would come in there and work, or pull out so that intensive group really had a lot of focus, and same thing with the gifted. You are able to work with the gifted teachers, and get in more lessons. Those right there in the middle were still able to get a lot of the help they needed to be able to succeed and not have to worry about some of the higher ones and what they

were doing, and the lower ones, and making sure that everybody was caught up. It was easier for them to keep going and being pushed.

The Special Education teacher and aide worked in each grade levels intensive small group. They helped the classroom teachers with IEP's and planning the small groups in the classroom.

P10 stated:

> Yeah and usually when we had the aides I know with the group that I had, um Ms. Henderson and Ms. Nall would come in and that would be like a group of you know about 25; it was a fairly large group but because they came in and helped during that time because it was the lower achievers. You know you had like three teachers in there and we can get a lot done with them. However, when you've got that low achieving group those are the ones where you tend to have your aides and your extra help and you can get a lot more done with them by having that extra help in your room when their ability groups on their level. Well those low achievers just need so much more and they need it on a different level, I mean like even right now we have children in second grade they still need to be taught their sounds, their phonics. I feel like we really hold a lot of those high achievers back. Especially that low achieving group you know we had the aides and the extra help come in and they're the ones who really need that individualized attention more so than any of them. And I felt like that worked out great for them.

P19 added:

> We have had professional development and hand-on activities because in the hybrid grouping, whenever we met with the 3 groups that were by level, small groups was very important with the intensive group to address their needs and get them to where they needed to be on grade level. We had three para professionals to help support us and meet

with groups as well, and in the morning, that's when I met with my group, the intensive group. She came in, and she supported students because there were 3 adults in the room and we had 3 groups and so we were able so we were able to rotate, but there was an adult in every group and so the students got the most intense small group instructions that I think would be possible. So, It was much easier with the 80 kids focusing on one subject

As reflected by the Angel Pride Survey and the teacher interviews, leadership was seen as more positive and supportive after the implementation of the hybrid grouping. The examples above suggested that the principal had forged collegial relationships with the faculty and these relationships fostered the innovative schedule. Because teachers perceived the innovation as something they had co-constructed with the principal they were able to focus on the students and collaborate with one another to meet student needs.

Conclusion

Results of the data analysis reveal a statistically significant correlation between Hybrid Grouping on ARMT scores. However the 4th grade students (3d) had less positive than negative differences in the ARMT Reading scores and 6th grade students (3f) had less positive than negative differences in the ARMT Mathematics. Research tells us that efficacious teachers believe they can bring about change in student learning (Cubukcu, 2008; Ross, 1998; Scharlach, 2008). If a teacher believes that all students are capable of learning, then the teaching style will involve high standards, and quality, regardless of the population the teacher serves (Muijs & Reynolds, 2000). When a teacher believes that all students can learn, they will set high expectations for them.

Teacher interviews supported the findings from the quantitative data. Four themes were gathered from the interviews that aligned with the surveys and the ARMT scores. The four themes were: Teaching to Their Strength, Leaders Role in Developing People, School Culture and Innovation for Student Growth. Chapter Five will address the findings, implications and recommendations for future research.

CHAPTER 5. SUMMARY, INTERPRETATIONS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This mixed methods study collected and used data to examine the use of Hybrid Grouping and to determine if student-learning outcomes as measured by the ARMT summative assessment changed during the implementation year. A review of the literature regarding departmentalization, achievement grouping coupled with self-contained instruction had a void of studies. The findings drawn from this research will aide schools or districts working to use innovative scheduling to meet the needs of their students and teachers.

The study investigated the structure of Hybrid Grouping and the way teachers perceived varied aspects of the innovation and how it might have influenced student learning. The study also examined quantitative measures of student learning before and after program implementation. The researcher used the *Angel PRIDE Survey, Teacher Perception Survey*, Teacher Interviews and *ARMT* data as the primary methods of collecting data. This study occurred in an elementary school setting in South Alabama. The school is in a military community with a diverse student population. Angel Elementary School consisted of 1st through 6th grades and qualified as a Title I school. There are eleven schools in the district with five other elementary schools. Angel Elementary was the only of the six elementary schools to implement Hybrid Grouping. Twenty teachers were represented in this study because of their involvement in the implementation of Hybrid Grouping.

Research Questions

1. To what extent do the teachers view differences in school leadership and school climate before and after program implementation?

2. What are the primary benefits as perceived by the teachers?

3. What effect does Hybrid Grouping have on mathematics and reading measured by the ARMT scores?

4. In regards to the Hybrid Grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?

Table 11

Indication of which Data Sources were used to Address each Individual Research Question

1. To what extent do the teachers view differences in school leadership and school climate before and after program implementation?	Angel PRIDE Survey Interviews Teacher Perception Survey
2. What are the primary benefits as perceived by the teachers?	Artifacts: Teacher Interest Survey Interviews
3. Is there a relationship between Hybrid Grouping and the mathematics and reading scores as measured by ARMT?	ARMT Student Data
4. In regards to the Hybrid Grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?	Angel PRIDE Survey Interviews

Implications of Key Findings

Research Question 1: To what extent do the teachers view differences in school leadership and school climate before and after program implementation?

The researcher used the implementation of Hybrid Grouping and the Pre and Post administrations of the Angel PRIDE Survey to determine perceptions of teachers' changes in school culture and the role of the leader in the process following a year of program implementation. The survey data collected indicated that statistical significance was achieved in two areas: Leadership and School Climate. In each of these categories teachers reported a positive change and this was supported by interview data. In their interviews, teachers suggested the principal was able to build capacity by allowing teachers to teach to their subject of strength, that the principal involved teachers in the planning of the innovation and that the faculty was allowed to collaborate during the planning and implementation of the Hybrid Grouping innovation. Teachers believed they were recognized for doing a good job and were respected as educational professionals. The school climate improved because they believed that Angel Elementary School was a good place to work.

Both sections of the surveys Leadership and Climate were administered pre and post implementation of Hybrid Grouping. The *PRIDE Survey* focusing on the dimension of Leadership given in the spring of 2011 indicated a mean of 3.1793 with a .50043 Standard Deviation. In the spring of 2012 the *PRIDE Survey Leadership* data indicated a mean of 3.7230 with a .20754 Standard Deviation. The survey results show a growth in teacher perception of the leadership at Angel Elementary School. The *PRIDE* Survey focusing on the dimension of Climate given in the spring of 2011 indicated a mean of 3.3844 with a .30562 Standard Deviation. In the spring of 2012 the *PRIDE Survey Climate* data indicated a mean of 3.3844

with a Standard Deviation of .36680. The survey results show a growth in *Angel Elementary School Climate.* The statistically significant results from the survey indicate that the leadership had a positive impact on the school climate at Angel Elementary School.

The *Teacher Perception Survey* was given at the end of the 2012 school year. This survey was used to determine teacher perceptions of the previous self-contained schedule pre-2012 and the hybrid schedule implemented in 2012. The data collected in the survey indicated that teachers perceived the hybrid schedule as a positive change. The survey indicated that hybrid scheduling made it easier because of the focus of one subject. It also indicated that teachers believed that intensive, benchmark and challenge students benefited from the implementation of the schedule.

Implications of Findings on School Climate and Leadership

Leadership is one of the most important factors when implementing change in a school. (Leithwood, 2006). Angel Elementary depended on strong leadership during the execution of Hybrid Grouping. It was interesting that leadership had a low mean score on the Spring 2011 PRIDE Survey and then received a more positive mean score in the Spring 2012 PRIDE Survey. Teachers viewed the leadership during this time as more supportive and appreciated the collaborative style fostered by the school principal. Yukl (2006) defined leadership as "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (p. 8). Regardless of how leadership is defined, it affects the success of implementing innovative changes (Moore, 2008; Ogawa & Bossert, 1995). Being able to convince teachers that the change would benefit teaching and learning relied on trust of their leader. The teachers and their willingness to listen and learn from their leader as well as the

leader's willingness to listen and learn from the teachers determined how successful the implementation of the innovative change was. Student achievement often is affected by teachers' perceptions of their leader (Smith et al., 2008).

School Culture improved during the implementation of Hybrid Grouping as a result of teachers trusting the leadership. The Angel Elementary principal took on the role of improving the school culture. There was evidence that school culture was improved because teachers were allowed to make the decision to teach to their strengths.

The teachers became experts in their specific content areas and there was significant student learning outcome growth. Using Piaget's theory in the classroom benefits teachers and students. Teachers can align their teaching strategies to a student's learning level. Often, teachers prefer small groupings because they allow for a better quality of work, better student concentration, and easier management of students (Blatchford, Baines, Kutnick, & Martin 2001). Bennett, Desforge, Cockburn, and Wilkinson (1984) found effective teachers were aware of the potential for learning and had the ability to plan tasks with groupings in their classrooms. Teachers gained confidence in what they were doing and felt empowered to support each other and grow as professional educators together.

Hindrances

There were some hindrances during the implementation of Hybrid Grouping. These were identified through the interview analysis. Teachers believed that some students struggled being mature enough to be able and change classes multiple times during a school day. Some of the obstacles for the students were leaving pencils and notebooks in the previous classroom. Teachers found it more difficult to track conduct grades. They also found it more difficult to communicate behavior problems with parents because the Hybrid Grouping meant they

interacted with more students each day than would have been the case with self-contained classrooms. There were no hindrances reported in regards to the four themes identified in the interview data: Teaching to Their Strength, Leaders Role in Developing People, School Culture and Innovation for Student Growth.

Research Question 2: What are the primary benefits as perceived by the teachers?

Interviews and the Teacher Interest Survey were used to determine the primary benefits of the Hybrid Grouping. The survey data collected from the Teacher Interest Survey indicated that statistical significance was achieved. Teachers perceived Hybrid Grouping as more positive than the traditional self-contained classroom.

Means for the survey administered ranged from 2.0417 with a Standard Deviation of .21517 for Self-Contained to 3.35 Mean with a .20184 for Hybrid Grouping. The statistically significant results from the survey indicated that Hybrid Grouping was perceived as more positive than Self-Contained Classrooms at Angel Elementary School

Interview responses supported that teachers were teaching to their strength and the innovation of Hybrid Grouping led to student growth. The teachers believed that focusing on one subject to teach rather than teaching six subjects gave them the ability to become experts on their content standards and on each students learning needs based on those standards. The teacher also found it beneficial to select the content that they felt most comfortable teaching. Teachers that loved mathematics taught mathematics, teachers that loved reading were able to teach reading and teacher that loved science taught science.

Hybrid Grouping aligns with Vygotsky's theory by creating a school structure that empowers teachers to plan lessons, individualize instruction and cater to the learning needs of every student (Duke & Pearson, 2002). The gradual release model shifts responsibility of

learning the cognitive load from teacher, to joint responsibility of teacher and student, to independent practice and application by the learner (Pearson & Gallagher, 1983). It takes the responsibility of the teachers performing a task to the students taking responsibility (Duke & Pearson, 2002, p. 211). This gradual release may occur over a day, a week, a month, or a year. Graves and Fitzgerald (2004) note that,

> Effective instruction often follows a progression in which teachers gradually do less of the work and students gradually assume increased responsibility for their learning. It is through this process of gradually assuming more and more responsibility for their learning that students become competent, independent learners. (p. 98)

School systems today commonly use the gradual release instructional model; however, this model does not allow teachers to take full responsibility of student learning. Teachers must shift the responsibility to students. The gradual release model, which is embedded in Hybrid Grouping, encourages students to become quality thinkers and learners. This model ensures that teachers support students in their acquisition of learning (Duke & Pearson, 2002). Small groups in the morning addressed specific needs.

Question 3: What effect does Hybrid Grouping have on mathematics and reading measured by the ARMT scores?

The Wilcoxon Signed-Ranks Test assesses change across two data collection points and was used to determine if student scores changed during the same time period of Hybrid Grouping implementation. The implementation of the Hybrid Schedule at Angel Elementary was an effort to improve student learning and it was reflected in ARMT scores. At the end of one year of Hybrid Grouping administration of ARMT follow-up was compared to baseline ARMT scores. Results of the data analysis revealed a statistically positive change in ARMT scores. While the

researcher cannot draw a causal relation between improved scores and Hybrid Grouping these data support the hybrid grouping that was responsible for the shift in teachers doing a better job teaching. The overall ARMT scores as well as in four of the six Wilcoxon Signed-Ranks Test grade level sub-scores, the ARMT scores were statistically different. Of the six sub-grade level Wilcoxon Signed-Ranks Test all were significantly more positive at the end of one year of Hybrid Grouping except for 6th grade mathematics and 4th grade reading (Table 12).

Table 12

Level of Significance Comparison Wilcoxon Signed-Ranks Test

	Mathematics	Reading
Overall	YES	YES
4th Grade	YES	NO
5th Grade	YES	YES
6th Grade	NO	YES

Teachers sometimes do not have the knowledge to teach multiple subjects at a high level. Hill, Rowan, and Ball (2005) found there to be a specific relationship between teachers' knowledge in mathematical concepts and students' achievement (Ma, 1999). The correlations for teachers to become more proficient in mathematical concepts are they must have time to plan and prepare for a deeper knowledge of the content and students' understanding. Thus, specialization offers teachers the opportunity to pursue deeper learning in their content area and create higher quality lessons for students. Teachers training in multiple content areas do not guarantee quality instruction in the classroom. Teachers must embrace the opportunity to gain

knowledge and understanding of the content and teaching their content to students.

If teachers are interested in a specific content area and are given the time to focus their instruction in that area they can become specialist. Many school systems have set up departmentalized classrooms in upper elementary schools. An example of this is a team of teachers in a grade level selecting one teacher to teach each subject area (Reys & Fennell, 2003). Teachers specializing in one subject area allow teachers to focus their efforts and professional development on that specific area (Reys & Fennell, 2003). Teacher specialization also allows school districts the ability to focus their attention on fewer teachers being trained for each subject area. An advantage of the departmentalized model is that no additional teachers are needed; rather, teachers are redistributed among subjects. Reys and Fennell believed it to be unrealistic to think elementary teachers have expert type knowledge in many subjects. Ma (1999) claimed that the time given teachers to accomplish their expertise in multiple subject areas is impossible.

Research Question 4: In regards to the Hybrid Grouping innovation, in what ways has the building leadership supported or hindered the teachers in planning and implementing the innovation?

A Teacher Perception Survey was given at the end of the 2012 school year. This survey was used to determine teacher perceptions of the previous self-contained schedule pre-2012 and the Hybrid Schedule implemented in 2012. The data collected in the survey indicated that teachers perceived the Hybrid Schedule as a positive change. The survey indicated that Hybrid Scheduling made it easier because of the focus of one subject. It also indicated that teachers believed that intensive, benchmark and challenge students benefited from the implementation of the schedule.

Developing teachers within the school structure is important to the leader and climate of

the school. Leaders must influence the teachers and students to embrace the innovations that bring about progress in the school (Bishop & Mulford, 1996; Leithwood et al., 2003; Sheppard & Brown, 1996). Leaders must challenge their staff to grow personally and professionally. The leader provides opportunities through collaboration and professional development to understand the changes made (Leithwood et al., 2003). Developing and using innovative pre- and in-service development programs have become more important over time, with some districts launching mentoring and coaching models alongside institutes and other professional learning experiences, which are more extended than were the traditional one-shot workshops that were often criticized for their limited impact (Peterson, 2002). The leader must consider the climate of the teachers as the new innovation is being implemented. Modeling the innovations for the teachers builds capacity and enthusiasm for the change (Leithwood et al., 2003).

Guiding Framework

The framework of Piaget, Vygotsky and Dewey guided this study. These three theorists suggested the social interaction of children with their environment and participating in practical, hands on activities were critical to their academic, social, cultural, and personal development. Every function in a child's development appears twice: first, on the social level, and later, on the individual level. This development first appears between people (interpsychological) and then inside the child (intrapsychological). This theory applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals (Vygotsky, 1978).

Hybrid Grouping allows students to explore peers not only in one setting, but possibly several settings. In these settings, students get to interact with more teachers and teachers who are teaching to their strength. Students tend to bond with particular teachers based on their own

personality and the teacher's personality. It is a travesty for students to be in a self-contained setting with a teacher whose personality does not allow students to bond. Reed (2002) stated that in departmentalized setting, students have opportunities to interact with multiple teachers throughout the day. These interactions increase the opportunity for the enhancement of learning experiences for students. At the same time, teachers who are allowed to teach to their strengths will likely have more confidence in their ability to reach all children.

Theoretical Framework

Angel Elementary Schools' leadership team decided to implement an innovative schedule called Hybrid Grouping. The term 'hybrid' is used because the new organizational structure implemented factions of both departmentalization and achievement groups throughout the day. The synthesis of the literature review identified the research on the two organizational structures and the ways in which they were interrelated to this study. Figure 1 shows the relationship between the theoretical frameworks and the research problem.

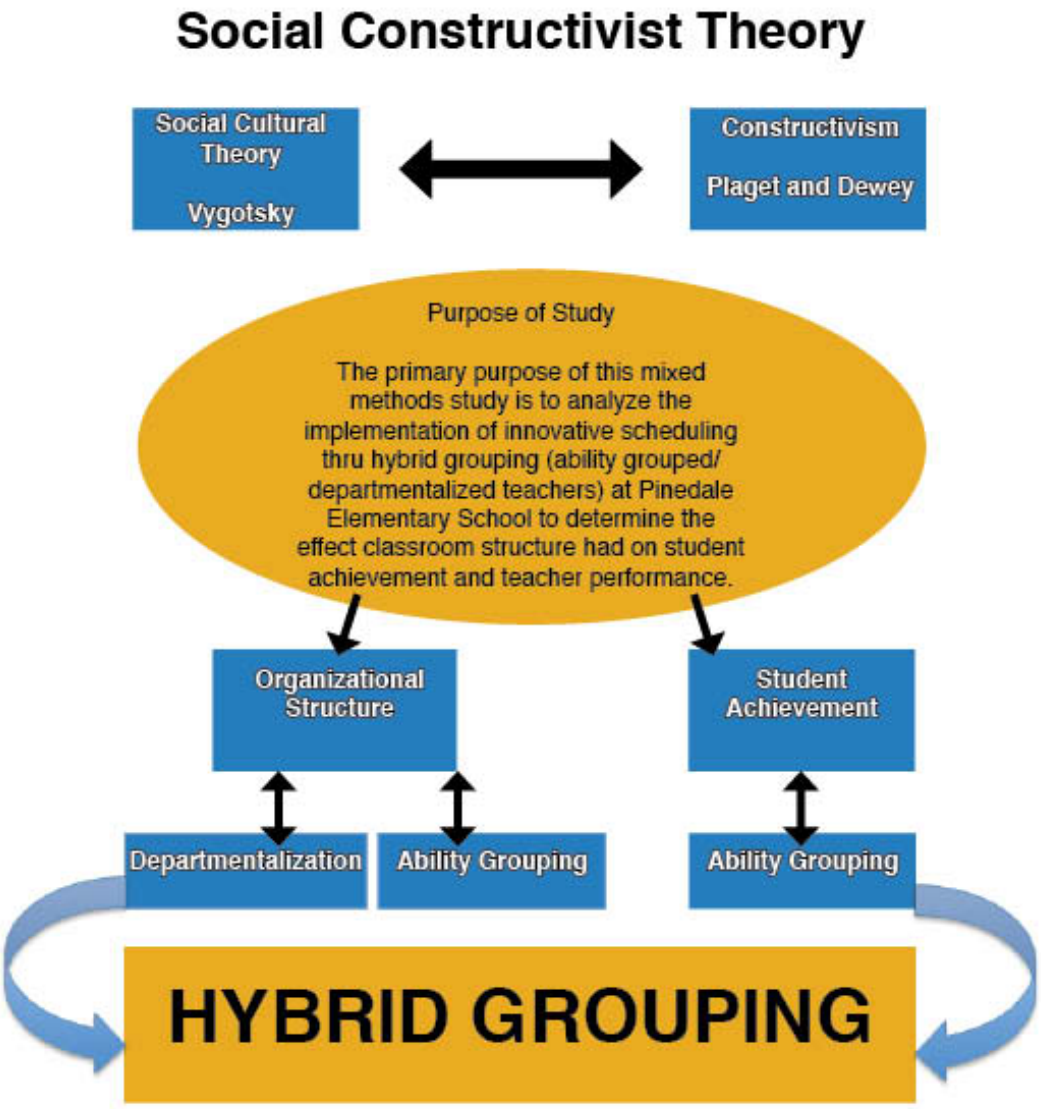

Figure 1. Social Constructivist Theory

After the implementation and study of the Hybrid Grouping model it was discovered that Leadership was critical to the success of the implementation of the Hybrid Grouping model. Figure 10 provides a visual of the new theoretical framework.

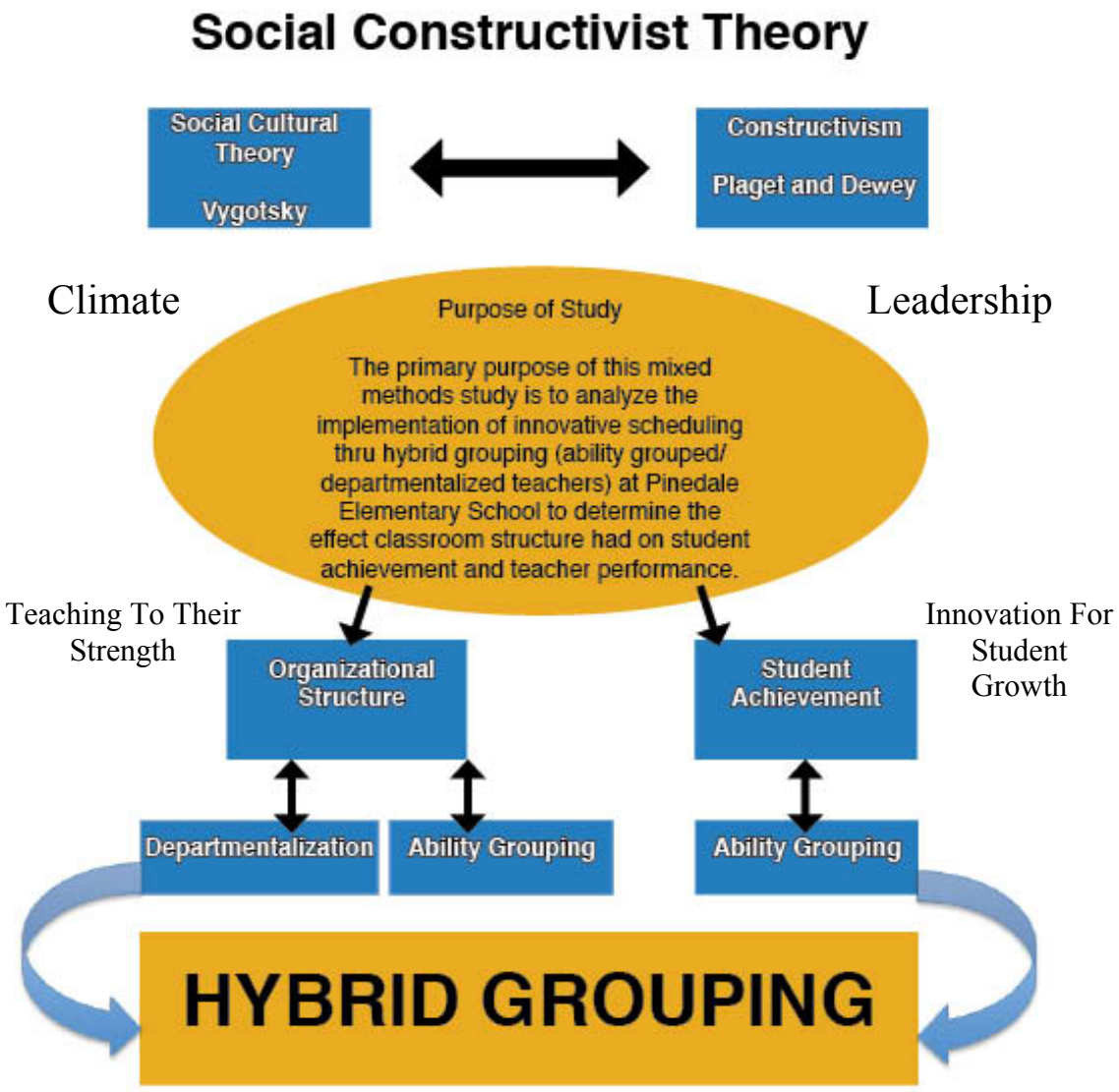

Figure 10. Social Constructivist Theory After Implementation of Hybrid Grouping

Recommendations for Future Research

Given the single mixed method research study, the conclusions are specific to Angel Elementary School.

1. Additional studies should involve a larger sample size to determine a perspective outside of Angel Elementary School. Future studies would explore different leadership styles and how it can impact implementation.
2. Second, replicate this study over multiple school years with the same students as they move from grade to grade. Start collecting data when a child takes their summative assessment in the spring of their year in 3rd grade year and each year following until they complete 6th grade.
3. Finally, use the same methodology of this study to analyze ARMT data of special education students and the impact Hybrid Grouping had on their achievement data.

There are many questions that arise when considering future research for Hybrid Grouping in elementary schools. Additional research would be beneficial to schools and districts interested in implementing Hybrid Grouping in their school.

Concluding Remarks

The researcher in this study was interested in determining if Hybrid Grouping would support an increase in student learning outcomes as measured by ARMT testing. The researcher also wanted to know if implementing an innovation like Hybrid Grouping would improve the culture of the school and the faculty perceptions of their school leader. While student achievement is most important it is also important to clearly understand how school organizations, school culture and leadership can interplay to create a supportive learning environment for students. It is the belief of the researcher that a positive school culture and

collaborative school leader is a critical piece in improving student learning. When the faculty trusts the leadership and the leadership trusts the faculty innovations and change to support student learning tends to happen.

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APPENDIX A

LETTER REQUESTING APPROVAL TO CONDUCT STUDY

145 Puttenam Way
Oxford, AL 36203
ccox.oh@oxford.k12.al.us; czc0049@auburn.edu

Oct 10, 2014

East Watts St
Enterprise, AL 36330

Dr. Wright

I am in the doctoral program at Auburn University studying in the Educational, Foundations, Leadership and Technology Department and the principal at Oxford High School in Oxford, Alabama. From two thousand ten until the spring of two thousand thirteen I was the principal of Pinedale Elementary School in Enterprise Alabama. While in Enterprise I was able to meet and work with Twyla Pipkin, the Principal at Pinedale Elementary School. During this time I became very interested in organization structure (ability grouping and departmentalization) in elementary schools. I would like to make the implementation of both ability grouping and departmentalization the focus of my dissertation study.

A review of literature reveals information on both of these organizational structures that make this an informative study. Pinedale Elementary staff named the combination of these structures Hybrid grouping. It is because of my work with Mrs. Pipkin and the implementation of the Hybrid model at Pinedale Elementary School that I would like test these practices in hopes of determining the impact on teachers and student achievement.

If you have any question I can be reached at 256-624-8511 or via email, ccox.oh@oxford.k12.al.us. You may also contact my committee chair, Dr. Ellen Reames, at 334-844-3067 or via email at reamseh@auburn.edu.

Thank you for your consideration

Sincerely,

Chris Cox

APPENDIX B

IRB LETTER OF CONSENT

Hybrid Grouping

You are being invited to participate in a research study, which the Auburn University Institutional Review Board (IRB) has reviewed and approved. Chris Cox is conducting the study, under the direction of Dr. Ellen Reames. We will describe this study to you and answer any of your questions. You are entitled to a copy of this form. If you have any question or complaints about the informed consent process of this research study you can contact Dr. Reames at Auburn University. Your role in the implementation of Hybrid Grouping at Angel Elementary School is the reason you have been selected as a participant in this study.

If you agree to participate in this study, you will be asked to complete a survey, questionnaire and an interview. Your participation in this study may help you understand the positive and negative of grouping in elementary schools. It is our hopes the data collected can validate the implementation of hybrid grouping at Angel Elementary School. Your participation in this study is completely voluntary. Should you decide not to participate at any time during this study it will have no impact on you or your school.

Thank you for your consideration,

Sincerely,

Chris Cox