COMMUNITY VERSUS TRADITIONAL CLASSROOMS:
IS THERE A CASE FOR IMPROVED
ACADEMIC PERFORMANCE IN
ELEMENTARY SCHOOLS?

By
Jeffrey Brent Elliott

Elizabeth K. Crawford
Associate Professor
(Chair)

Hinsdale Bernard
Professor
(Committee Member)

David W. Rausch
Professor
(Committee Member)

Valerie C. Rutledge
Professor
(Committee Member)
COMMUNITY VERSUS TRADITIONAL CLASSROOMS:

IS THERE A CASE FOR IMPROVED

ACADEMIC PERFORMANCE IN

ELEMENTARY SCHOOLS?

By

Jeffrey Brent Elliott

A Dissertation Proposal Submitted to the Faculty of the University of Tennessee at Chattanooga in Partial Fulfillment of the Requirements of the Degree of Doctor of Education

The University of Tennessee at Chattanooga
Chattanooga, Tennessee

June 2017
ABSTRACT

This causal-comparative case study compares two scheduling practices to determine if there is a significant difference in English Language Arts and/or math scores among fourth and fifth grade students in a southeast Tennessee elementary school. The first scheduling practice included students in a traditional self-contained classroom. The second scheduling practice integrated a departmentalized and looping model where content specialist in ELA and a content specialist in math taught the students. For the 2012-2013 and 2013-2014 school years, the school administrator assigned half of the school’s student body to a traditional, self-contained classroom and half to a departmentalized, looped setting known as a community. A community blends departmentalization, where students have subject-specific teachers, and looping, where students have the same teacher for consecutive school years. The quantitative portion of the study compares Tennessee Comprehensive Assessment Program (TCAP) scores of 59 students enrolled in traditional self-contained classes to the scores of 82 students enrolled in departmentalized, looped classrooms. Additionally, a qualitative component reflects 11 teachers’ anecdotal perspectives, anxieties, and general viewpoints of the academic benefits of elementary schedules.

The results of the study indicated no statistically significant academic difference in reading between self-contained students and departmentalized, looped students. Furthermore, the results showed no statistically significant academic difference in math between self-contained students and departmentalized, looped students. The interviewed teachers favored
some variation of departmentalization at the elementary level. Although the $t$-test results indicated no significant differences overall, an analysis of variance revealed significant differences between African American and Caucasian students’ scores.

Considering the Common Core State Standards implemented during the period of study and considering theoretical underpinnings, findings showed the importance of teacher content knowledge as a precursor to establishing a favorable instructional setting at the elementary level. However, these results also indicated the importance of strong, efficacious learners who contribute to the collective efficacy of the classroom.
TABLE OF CONTENTS

ABSTRACT ........................................................................................................................................ iii
LIST OF TABLES .............................................................................................................................. vii
LIST OF FIGURES ............................................................................................................................... x
LIST OF ABBREVIATIONS ................................................................................................................... xi

CHAPTER

I. INTRODUCTION .............................................................................................................................. 1

Statement of the Problem .................................................................................................................. 5
Purpose of the Study .......................................................................................................................... 10
Research Questions ......................................................................................................................... 11
  Quantitative Study ......................................................................................................................... 11
  Qualitative Study .......................................................................................................................... 12
Research Hypotheses ....................................................................................................................... 12
Rationale for the Study ...................................................................................................................... 13
Theoretical/ Conceptual Framework ................................................................................................. 16
Significance/ Importance of the Study ............................................................................................... 18
Definition of Terms .......................................................................................................................... 19
Methodological Assumptions ........................................................................................................... 20
Delimitations ..................................................................................................................................... 21
Limitations ......................................................................................................................................... 21

II. LITERATURE REVIEW .................................................................................................................. 23

Schema Theory ................................................................................................................................. 23
Self-Efficacy Theory ......................................................................................................................... 25
Sociocultural Theory ......................................................................................................................... 38
Cognitivist Learning Theories ........................................................................................................... 41
Elementary School Schedules ........................................................................................................ 42
  Departmentalization ..................................................................................................................... 42
  Looping ........................................................................................................................................... 49
  Community, Departmental Looping ............................................................................................... 53
Test Data and Sub-groups ............................................................................................................... 57
  Males and Females ......................................................................................................................... 57
III. METHODOLOGY ................................................................. 64

Population and Sample .......................................................... 64
Variables ............................................................................. 64
Instrumentation ................................................................... 66
Research Design ................................................................... 66
Procedure .............................................................................. 73

IV. DATA .................................................................................. 76

Quantitative Data Results ......................................................... 76
Qualitative Data Results ........................................................... 102

V. SUMMARY AND DISCUSSION ............................................. 111

Statement of the Problem ....................................................... 111
Review of the Methodology .................................................... 113
Summary of the Results ........................................................... 115
Quantitative Results ............................................................... 115
Qualitative Results ............................................................... 118
Discussion of the Results ....................................................... 120
Conclusions and Implications .................................................. 124
Recommendations for Further Research ................................... 127

REFERENCES ........................................................................ 130

APPENDIX

A. IDENTIFICATION AND ANALYSIS OF VARIABLES .......... 146

B. A TWO-YEAR CAUSAL-COMPARATIVE STUDY .................. 148

C. QUESTIONS FOR QUALITATIVE RESEARCH ................... 150

D. QUALITATIVE DATA: INTERVIEW QUESTIONS AND RESPONSES 153

VITA ....................................................................................... 163
LIST OF TABLES

1 Standards of Learning Pass Rates at Cougar Elementary School in Virginia ...........55
2 Quantitative Analysis - Question 1 ........................................................................69
3 Quantitative Analysis - Question 2 ........................................................................70
4 Quantitative Analysis - Question 3 ........................................................................71
5 Quantitative Analysis - Question 4 ........................................................................72
6 Ethnicity of Students in 2013 and 2014 Self-Contained and Community, Looped Classrooms ......................................................................................77
7 Gender of Students in 2013 and 2014 Self-Contained and Community, Looped Classrooms ......................................................................................78
8 Subgroups of Students in 2013 and 2014 Self-Contained and Community, Looped Classrooms ......................................................................................79
9 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores After Two Years in Self-Contained or Community, Looped Classrooms ..............80
10 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores By Gender after Two Years in Self-Contained or Community, Looped Classrooms .................................................................................................81
11 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores By Socioeconomics after Two Years in Self-Contained or Community, Looped Classrooms .................................................................................................82
12 One-Way ANOVA Results of 2014 Fourth Grade ELA TCAP Percentile Scores By Ethnicity after Two Years in Self-Contained Classrooms .................................83
13 One-Way ANOVA Results of 2014 Fourth Grade ELA TCAP Percentile Scores By Ethnicity after Two Years in Community, Looped Classrooms .................................83
14 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores By Disabilities after Two Years in Self-Contained or Community, Looped Classrooms ......................................................................................84
15 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores
By English Proficiency after Two Years in Self-Contained or Community,
Looped Classrooms..................................................................................85

16 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores
After Two Years in Self-Contained or Community, Looped Classrooms...........86

17 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores
By Gender after Two Years in Self-Contained or Community, Looped
Classrooms.....................................................................................................87

18 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores
By Socioeconomics after Two Years in Self-Contained or Community, Looped
Classrooms.....................................................................................................88

19 One-Way ANOVA Results of 2014 Fourth Grade Math TCAP Percentile Scores
By Ethnicity after Two Years in Self-Contained Classrooms ..........................89

20 One-Way ANOVA Results of 2014 Fourth Grade Math TCAP Percentile Scores
By Ethnicity after Two Years in Community, Looped Classrooms .................89

21 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores
By Disabilities after Two Years in Self-Contained or Community, Looped
Classrooms.....................................................................................................90

22 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores
By English Proficiency after Two Years in Self-Contained or Community, Looped
Classrooms.....................................................................................................91

23 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores
After Two Years in Self-Contained or Community, Looped Classrooms...........92

24 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores
By Gender after Two Years in Self-Contained or Community, Looped
Classrooms.....................................................................................................93

25 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores
By Socioeconomics after Two Years in Self-Contained or Community, Looped
Classrooms.....................................................................................................94

26 One-Way ANOVA Results of 2014 Fifth Grade ELA TCAP Percentile Scores
By Ethnicity after Two Years in Self-Contained Classrooms .........................94
27 One-Way ANOVA Results of 2014 Fifth Grade ELA TCAP Percentile Scores
   By Ethnicity after Two Years in Community, Looped Classrooms
28 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores
   By Disabilities after Two Years in Self-Contained or Community, Looped
   Classrooms
29 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores
   By English Proficiency after Two Years in Self-Contained or Community,
   Looped Classrooms
30 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores
   After Two Years in Self-Contained or Community, Looped Classrooms
31 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores
   By Gender after Two Years in Self-Contained or Community, Looped
   Classrooms
32 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores
   By Socioeconomics after Two Years in Self-Contained or Community,
   Looped Classrooms
33 One-Way ANOVA Results of 2014 Fifth Grade Math TCAP Percentile Scores
   By Ethnicity after Two Years in Self-Contained Classrooms
34 One-Way ANOVA Results of 2014 Fifth Grade Math TCAP Percentile Scores
   By Ethnicity after Two Years in Community, Looped Classrooms
35 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores
   By Disabilities after Two Years in Self-Contained or Community, Looped
   Classrooms
36 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores
   By English Proficiency after Two Years in Self-Contained or Community,
   Looped Classrooms
LIST OF FIGURES

1 Conceptual Map of Study ........................................................................................................18
LIST OF ABBREVIATIONS

ANOVA .............................................................. Analysis of variance
CCSS ................................................................. Common Core State Standards
CT ........................................................................ Community teacher
DEA ................................................................. Discovery Education Assessment
ED ........................................................................ Economically disadvantaged
ELA ........................................................................ English language arts
ELL ........................................................................ English language learners
NAEP .............................................................. National Assessment of Educational Progress
NCTAF .......................................................... National Commission on Teaching and America’s Future
PISA ................................................................. Programme for International Student Assessment
RTI ........................................................................ Response to Intervention
SCT ........................................................................ Self-contained teacher
SWD ......................................................................... Students with disabilities
TCAP ............................................................. Tennessee Comprehensive Assessment Program
TIMSS ........................................................ Trends in International Mathematics and Science Study
ZPD ......................................................................... Zone of proximal development
CHAPTER I
INTRODUCTION

In June 2010, the National Governors Association and the Council of Chief State School Officers unveiled new rigorous standards in English language arts (ELA) and mathematics, known as the Common Core State Standards (CCSS). These newly developed standards identified common grade-level benchmarks and goals to be implemented across the United States. “The Standards are from the outset intended to represent a consensus among states about the knowledge and skills all students, regardless of where they live, are expected to develop” (Rothman, 2012, p. 11). The CCSS were introduced to prepare students in the United States with skills for college and careers in the 21st century (Calkins, Ehrenworth, & Lehman, 2012; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014; Rothman, 2012). The adoption of the CCSS shifted the instructional focus toward skills students need in order to achieve successful entry into a college or a career (Mongeau, 2014; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014; Silver, Dewing, & Perini, 2012; Tennessee Department of Education, 2012a).

Prior to the new standards, Tennessee educators based their instruction on vague standards and content that did not fully prepare high school graduates for college or the workplace (U.S. Chamber of Commerce, 2007). Sponsored by the Thomas Fordham Foundation, Finn, Julian, and Petrilli (2006) conducted a national standards review and reported
that “Tennessee’s English standards are in large part unclear, unspecific, and immeasurable” (p. 107). The authors went on to describe Tennessee’s math objectives as “deficient lower-grade standards” (Finn et al., 2006, p. 108). The 2007 Chamber Report indicated that Tennessee state standards were not rigorous and did not prepare students for the 21st century workplace (U.S. Chamber of Commerce, 2007). With the state’s adoption of the CCSS in 2010 and full implementation of the new standards during the 2013-2014 school year, English language arts (ELA) and literacy teachers focused student learning on practice with complex texts, communicating with textual evidence, and using nonfiction text to build content knowledge (Achieve, 2014; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014). Key shifts in the new mathematics standards narrowed the focus of topics, linked the content across grade levels, and increased the rigor of the concepts (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014).

As of summer 2015, 43 states had adopted the CCSS to be implemented in their public education classrooms. With the adoption of these new standards, educators across the United States faced common instructional practice challenges: understanding the new standards, creating and pacing a curriculum to address grade-specific standards, using research-based strategies to model skills to students, and aligning assessments to match the skills taught (Crawford, 2012; Rothwell & Kazanas, 2008).

With the implementation of the Common Core State Standards, teachers faced the professional charge of assuring that students mastered the internationally benchmarked standards at each grade level. This intense shift in standards generated a growing concern among Tennessee elementary teachers as to how they could successfully implement these standards.
While most secondary school teachers have traditionally taught students a specific content area and the skills related to that specific content, most elementary teachers have customarily taught multiple core subjects to a specific group of students (Mongeau, 2014; National Center for Education Statistics, 2007-08). In order for elementary school teachers to address the more complex skills related to the CCSS and to assess student mastery of the subject-specific standards, elementary schools have reviewed and adjusted master schedules to resemble the content-oriented high school format (Scholastic, 2013).

The Center for American Progress reported that elementary schools are implementing adjusted schedules to increase instructional time for CCSS subjects: ELA and math (Farbman, Goldberg, & Miller, 2014). This report emphasized teachers’ need for additional professional learning time because of the instructional shifts with the new curriculum standards (Farbman et al., 2014). A 2012 Scholastic report revealed that teachers spent less than 15 minutes per day collaborating with colleagues (Scholastic, 2012). The Center for American Progress shared similar statistics and highlighted options for schools to adjust class schedules to support additional time for collaboration and student interaction (Farbman et al., 2014). The authors of the report said schedules need to provide extended blocks of time to allow for student interaction and collaboration around high-level reading passages and math tasks (Farbman et al., 2014). In addition, the same report emphasized the need for teacher collaboration around more in-depth content to support students’ reasoning skills (Farbman et al., 2014). This report also suggested schools consider extending the master schedule by 30 or 45 minutes each day for enrichment or intervention for each child (Farbman et al., 2014).

The schedule analysis leads to a consideration of organizational structures within elementary schools: self-contained, departmentalized, looped, and other flexible models
(Farbman et al., 2014). Public education schools reported enrollment of 35 million students in kindergarten through eighth grade in 2014 (Education, 2015a). The National Center for Education Statistics (2007-08) reported 27% of all public school teachers taught a self-contained class at the elementary level. The same report indicated 7% of all public school teachers taught in an elementary, departmentalized classroom while the remaining teachers taught specialty courses such as music, library, technology, etc. (National Center for Education Statistics, 2007-08). Furthermore, the data in the same report indicated that 39% of all public education teachers taught a departmentalized class at the middle and high school level (National Center for Education Statistics, 2007-08). Thus, these numbers indicated a higher proportion of self-contained classrooms at the elementary level rather than the secondary level. However, evidence pointed to a solid presence of departmentalization at the elementary level (Education, 2015a; National Center for Education Statistics, 2007-08).

A departmentalized classroom allows the teacher to focus on a specific content area (Chan & Jarman, 2004; Delviscio & Muffs, 2007). This model is similar to a traditional middle or high school model. Other elementary schools have implemented a looping concept where a teacher teaches multiple subjects to a similar group of students for multiple academic years (Bogart, 2002; Caauwe, 2010; Canady & Rettig, 2008; Chan & Jarman, 2004; Franz et al., 2010; Grant, Johnson, Richardson, & Fredenburg, 1996; Krogman & Van Sant, 2000; Little & Dacus, 1999; Marshak, 2005). During a second year of instruction, a looped classroom can save the teacher time in identifying student academic needs (Burke, 1997; Caauwe, 2010; Grant et al., 1996; Hitz, Somers, & Jenlink, 2007). However, the teachers who loop may find themselves spending more time than a traditional, self-contained teacher because they must learn and implement a second year of curriculum for their content area.
A more rigorous set of research-based standards prompted educators to explore best instructional practices to deliver content-rich material (Barlow & Shannon, 2012; Malatesha Joshi et al., 2009; Newell, Beach, Smith, & VanDerHeide, 2011; Tennessee Department of Education, 2013b). In order to be more fluent in teaching higher-level curriculum at the elementary level, teachers faced the need to increase their content knowledge in specific subject areas such as English and math (Haager & Vaughn, 2013; Powell, Fuchs, & Fuchs, 2013). This methodology and pedagogical adjustment prompted elementary schools to explore varied ways in structuring the master schedule to maximize student thinking and learning while supporting teachers in lesson preparation (Alexander, 2010; Barlow & Harmon, 2012; Institute for Learning, 2013; Michaels, O'Connor, Hall, & Resnick, 2010; Rothman, 2012; Sieg, 2012; Silver et al., 2012; Tennessee Department of Education, 2012a, 2013b, 2013c).

**Statement of the Problem**

The community teacher instructs students from multiple grade levels while specializing in one core subject, either ELA or math. For example, a community teacher delivers math instruction to a group of third, fourth, and fifth grade students. As students progress to the next grade level, the instructor continues to work with the same students s/he taught the previous year. In this study, the researcher examined the effectiveness of self-contained and community classrooms by focusing on the relationship between one school’s ELA and math achievement test scores.

The National Assessment of Educational Progress (NAEP) indicated that Tennessee’s educational status in reading and math, among fourth grade students, remained in the bottom decile among states in 2011. Tennessee ranked 39th among states in reading scores in 2009 and
dropped to the 42nd position in 2011. NAEP fourth grade math test results revealed Tennessee ranked 47th among states in 2011, which was a decline from the 45th ranking in 2009 (NAEP - Mathematics and Reading 2013, 2013).

International educational comparisons from the 2011 Trends in International Mathematics and Science Study (TIMSS) showed United States’ fourth grade math students ranked 15th among the 57 participating countries (National Center for Education Statistics, 2011; United States Department of Education, 2012a). The 12,569 American fourth grade students’ average scale score was 541, while Singapore’s students averaged a scale score of 606 and ranked first among the nations taking the test (United States Department of Education, 2012a). Singapore, Korea, Japan, Hong Kong, and Taiwan had higher national averages among math students in 2011 (National Center for Education Statistics, 2011). Even though the United States’ math scores are better than the majority of international countries, there still remains room for improvement on both a national and a state level (NAEP - Mathematics and Reading 2013, 2013; PISA, 2012; Tennessee Department of Education, 2014b; United States Department of Education, 2012a, 2014). Furthermore, Tennessee students’ scores indicated room for improvement in math as well. Tennessee students’ average scale score of 232 in math was less than the United States students’ average score of 239 in math on the 2011 NAEP Test (NAEP - Mathematics and Reading 2013, 2013; Tennessee Department of Education, 2014b; United States Department of Education, 2014).

The United States’ fourth grade students were more competitive in reading than math according to international test comparisons. This reading cohort ranked fifth out of 52 tested countries (Thompson et al., 2012). Hong Kong, Russia, Finland, and Singapore had higher scores than the United States (Thompson et al., 2012). Reading scores over the last decade have
continued to increase in the United States (NAEP - Mathematics and Reading 2013, 2013). While
the reading scores indicated increasingly positive results in reading compared to many other
countries, President Obama’s vision still remained for the United States to produce the “best-
educated, most competitive workforce in the world with the highest proportion of college
graduates of any country” by 2020 (Education, 2015b, p. 1).

These scores in 2011 indicated American students, including Tennesseans, had room to
improve ELA and math proficiency levels. In July 2010, Tennessee adopted the Common Core
State Standards. In an effort to become the fastest improving state in the field of education,
Tennessee accepted Race to the Top federal funds in 2010 (Tennessee Department of Education,
2014). With lower than average test scores and federally awarded dollars, Tennessee educators
faced a big challenge to increase academic proficiency on achievement tests (U.S. Chamber of
Commerce, 2007). When the state received the Race to the Top funds, Tennessee education
officials raised the bar with more rigorous evaluation procedures and major shifts in instructional
practices to address the CCSS (Tennessee Department of Education, 2012a, 2014c). These
changes placed additional pressures on teachers to adjust pedagogical practices in order to show
increased professional improvements along with increases in student achievement (United States
combined to place significant pressure on local leaders and teachers” (United States Department

In addition, elementary level administrators and teachers have investigated various ways
to improve academic achievement through the first tier of a three-tier instructional model known
as response to intervention (Tennessee Department of Education, 2013c). Elementary level
educators have addressed the scheduling of core instructional classes, the first tier of the model.
In upper elementary grades, Tennessee schools have investigated ways to increase ELA and math instruction time for all students through departmentalizing or looping. “The practice of departmentalization . . . assigns teachers to their instructional strength and reduces the number of preparations required” (Canady & Rettig, 2008, p. 7). The teacher who loops with a class has the opportunity to focus more time on instructional practices because knowledge of students’ needs extends to multiple years of teaching the same group (Bogart, 2002; Burke, 1997; Franz et al., 2010; Kellough & Kellough, 2003; Krogman & Van Sant, 2000). These first-tier scheduling options affect the entire class of students, while the other two tiers of response to intervention may only include a subgroup of lower performing students who need specific, individualized skill instruction (Tennessee Department of Education, 2013c). Since the adoption of the CCSS and the awarding of the Race to the Top funds, educators have implemented similar, tiered scheduling strategies and reviewed scores to attempt to validate their interventions (Institute for Learning, 2013; Resnick, Asterhan, & Clarke, 2013; Tennessee Department of Education, 2014; Tennessee Department of Education, 2013a, 2013b, 2013c, 2013f, 2014b, 2014d).

In Fall 2013, Tennessee released NAEP scores from the 2013 test. The state’s fourth and eighth grade students showed substantial growth in reading and math (United States Department of Education, 2014). Tennessee’s fourth grade math scale scores increased by seven points from 2011 to 2013, while the state’s reading scores grew by four points (United States Department of Education, 2014). This is the largest increase in fourth grade scores of any state in the nation. On the eighth grade reading test, Tennessee students made a gain of six points, second only to California’s seven point increase (United States Department of Education, 2014). In addition to the growth in each of these areas, Tennessee had a four point increase on the 2013 eighth grade math test (United States Department of Education, 2014). This growth in scale scores was as
high as any other state. Tennessee students’ scores improved from a 274 scale score in 2011 to a 278 scale score in 2013 (United States Department of Education, 2014). Only Hawaii, New Hampshire, and Pennsylvania showed similar increases on the NAEP eighth grade math test. “The District of Columbia, Tennessee, and the Department of Defense schools were the only states/jurisdictions to score higher than in 2011 in both subjects at both grades 4 and 8” (National Assessment of Educational Progress, 2013, p. 1).

Tennessee’s 2013 NAEP scores revealed that the state was one of the fastest improving states in the nation (Tennessee Department of Education, 2014b). The Tennessee Department of Education reported the state had a composite NAEP growth scale score of 21.80 across the four tests: fourth grade reading, fourth grade math, eighth grade reading, and eighth grade math. The next closest state, Indiana, had a growth score of 14.67 (Farmer, 2013; Tennessee Department of Education, 2014b). Tennessee Governor, Bill Haslam, attributed the students’ growth in test scores to the hard work of the teachers in implementing the Common Core State Standards into the classroom (Tennessee Department of Education, 2013f). “The state improved in overall national ranking in each of the four tests. For fourth-grade students, Tennessee went from 46th in the nation in math to 37th and from 41st to 31st in reading” (Tennessee Department of Education, 2013f, p. 1).

During the transition years to fully implement the CCSS in 2013-2014, one elementary school in Southeast Tennessee anticipated the need to adjust schedules and methods to indicate academic growth among its third, fourth, and fifth grade students. From 2010 to 2012, the elementary school’s academic achievement results on the Tennessee Comprehensive Achievement Program test indicated above average ELA and math achievement scores among schools in Tennessee (Tennessee Department of Education, 2012). However, an analysis of the
grade level cohorts’ year-to-year growth scores showed students were not keeping up with the state’s growth during the same period of time (Tennessee Department of Education, 2012). This elementary school began to notice a subpar performance compared to its previous years with negative growth scores in 2011 and 2012 (Tennessee Department of Education, 2012). While their academic achievement scores continued to be higher than the state’s average, the school’s value-added scores, which indicate student progress within a grade level and subject, showed students were not performing as well as they did in previous years (Tennessee Department of Education, 2012). This elementary school’s scores indicated the state was improving at a faster rate than the cohorts within the school. Therefore, the school administrators looked for methods or schedule adjustments to keep a high achievement score status while addressing the instructional shifts brought on by the changes in state standards.

**Purpose of the Study**

An effective elementary school schedule creates a learning environment where students can efficiently reach mastery of the standards-based skills (Gaskins, Herres, & Kobak, 2012). Teachers in the southeast Tennessee elementary school to be studied faced shifts in curriculum and instruction in 2012 (Tennessee Department of Education, 2012a). The school’s administrator and staff sought out the most effective way for students to reach mastery of the new ELA and math standards. In addition to teaching students to a high level of mastery of the standards, the educators wanted to find a scheduling approach that would create superior achievement compared to other state schools.

The purpose of the study was to compare two scheduling practices to determine if there was a significant difference in ELA and/or math scores among fourth and fifth grade students.
The first scheduling practice included students in a traditional self-contained classroom. For this practice, students were assigned to one teacher who instructed the students in both ELA and math. During a second year of instruction, these students were assigned to a different teacher in a traditional, self-contained setting.

The second scheduling practice integrated a departmentalized and looping model. For this practice, students were assigned to a content specialist in ELA and a content specialist in math. This scheduling practice resembled departmentalization. For a second year of instruction, these students were scheduled with the same content specialists. This biennial instructor assignment reflected a departmentalized approach to scheduling, and it resembled looping because the teachers instructed similar students for more than one year.

**Research Questions**

Quantitative Study

Based upon evidence from a control group of traditional, self-contained classroom students and a comparison group of departmentalized, looping (community) students in a southeast Tennessee elementary school, the following questions were examined:

1. Do elementary English language arts students who completed third and fourth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

2. Do elementary math students who completed third and fourth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?
3. Do elementary English language arts students who completed fourth and fifth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

4. Do elementary math students who completed fourth and fifth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

Qualitative Study

Based upon teacher responses to a series of questions (Appendix C), the researcher considered the academic benefits of each classroom setting by examining answers to the following question:

5. What anecdotal perspectives, anxieties, and general viewpoints do educators have about community and self-contained classrooms?

Research Hypotheses

There will be a statistically significant difference in reading scores of students participating in a departmentalized, looping (community) setting compared with the reading scores of students participating in a traditional, self-contained classroom at the p < .05 level of significance.

There will be a statistically significant difference in math scores of students participating in a departmentalized, looping (community) setting compared with the math scores of students participating in a traditional, self-contained classroom at the p < .05 level of significance.
Rationale for the Study

For over a century, educators have looked for scheduling alternatives to the traditional self-contained classroom in order to improve student academic achievement (Barnes, 1962; Becker & Gleason, 1927; Chan & Jarman, 2004; Chirichello & Chirichello, 2001; Delviscio & Muffs, 2007; Dushane, 1916a, 1916b; Grant et al., 1996; Heathers, 1961; Hood, Rothman, Curtis, & City, 2009; Hughes, 1919; Johnson, 1982; Seegers, 1947). “In 1913, the United States Bureau of Education sent a questionnaire on departmental teaching in the grades to all cities having a population of 5,000 or over” (DuShane, 1916b, p. 151). Seegers (1947) argued against departmentalization, citing silo or fragmented learning as students compartmentalized specific content delivered by specialist teachers. Heathers (1961) emphasized that multiple instructional practices and organizational strategies have been implemented in schools since the early days of public education. Looping, the multiyear teaching method, dates back to the first quarter of the 20th century when Germany introduced the concept to the United States’ education system (Burke, 1997). As the last century waned to the new millennium, educators in Virginia blended the departmentalization and looping concept to create communities where teachers became content specialists with the same students for multiple years (Canady & Rettig, 2008). Within the same decade, Bishop Dunn School in Newburgh, New York implemented a similar community classroom concept at the onset of the 21st century (Delviscio & Muffs, 2007). At this small elementary school, three teachers specialized in one of three subject areas: math, science, or social studies. Also, these teachers each had a grade level homeroom class in which they taught either a third, fourth, or fifth grade reading class (Delviscio & Muffs, 2007).
Since 2007, public education teachers in Tennessee have faced transition periods with new curriculum standards and evaluation tools in recent years (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014; Tennessee Department of Education, 2014c). These changes have been implemented to increase student learning and to prepare students for future careers and college-level coursework. The previous state standards were vague; required few thorough, evidence-based answers; were not coherent across grade levels; and did not consistently focus on college-and-career readiness (Tennessee Department of Education, 2012a). The CCSS and instructional practices have focused on encouraging higher-order, critical thinking (Guthrie & Klauda, 2014; Haager & Vaughn, 2013; Malatesha Joshi et al., 2009; Roskos & Neuman, 2014; Silver et al., 2012; Slavin & Lake, 2008; Tennessee Department of Education, 2012a, 2014c). This has required teachers to be more prepared to ask text-based questions and have an in-depth understanding of the skill being taught (Beck, Blake, & McKeown, 2009; Fisher, Frey, & Lapp, 2012; Liben & Liben, 2013). The teachers’ implementation of more text-dependent questions has prompted students to cite evidence to support arguments in their verbal and written work (Liben & Liben, 2013; Tennessee Department of Education, 2013b). These CCSS, with annual benchmarks, have placed an increased responsibility on each teacher, at each grade level (Tennessee Department of Education, 2012; Tennessee Department of Education, 2013a, 2014d; U.S. Chamber of Commerce, 2007; United States Department of Education, 2014). “According to the best available evidence, the mastery of each standard is essential for success in college, career, and life in today’s global economy” (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014, p. 1).
The increased complexity of the CCSS prompted elementary educators to consider new strategies to teach reading and math. Gerretson, Bosnick, and Schofield (2008) claimed that the traditional, generalist approach to teaching multiple elementary school subjects cannot work. Alexander (2010) shared that teachers “cannot help pupils to build up their understanding and insight within a particular domain of the curriculum without having a good grasp of what the domain is about” (p. 107). To address this challenge, educators have identified methods to teach content with more depth rather than recalling a list of facts and terms. Along with using questioning strategies that prompt students to analyze subject-specific content, researchers from the University of Pittsburgh have offered teachers a strategy to create a classroom with more intense and thorough discussions on specific standards-based content (Applebee, Langer, Nystrand, & Gamoran, 2003; Institute for Learning, 2013). The University of Pittsburgh cited an effective strategy known as Accountable Talk, which is “characterized by high demand tasks in which teachers help to scaffold student thinking and reasoning about subject-matter through talk” (Resnick et al., 2013, p. 105).

The upper elementary level educators have looked for ways to specialize in a certain content area in order to focus on these best practices associated with a thorough delivery of the content standards (Altieri, 2009; Canady & Rettig, 2008; Heathers, 1961). To emphasize literacy and math instruction, some elementary principals have designated teachers as content specialists (Gerretson et al., 2008). This focused instructional practice has the potential to increase a teacher’s time to prepare evidence and lesson materials to support a specific content such as ELA or math (Chan & Jarman, 2004).

Taking the historical data into account, the researcher analyzed the effectiveness of self-contained classroom instruction at the elementary level compared to the effectiveness of
community classroom instruction at the elementary level. A traditional, self-contained classroom is a learning environment where a group of students is taught multiple subjects by one teacher in a single, academic year (Lobdell & van Ness, 1963; Walker, 2009). The community classroom combines the departmentalization concept, a teacher specializing in one subject to instruct multiple groups of students within one grade level, with the looping method.

Theoretical/Conceptual Framework

The theory that drove this study is the cognitive learning theory (CLT). Components related to the cognitive learning theory include schema, self-efficacy, and the social cognitive theory (SCT). Schema theory emphasizes the importance of previous knowledge and mental structures to support future learning (Detienne, 1990; McVee, Dunsmore, & Gavelek, 2005; Nuthall & Alton-Lee, 1993). The data from this study provided some insight as to how the schema of an existing classroom and previously learned procedures influenced the achievement test results from a familiar, two-year instructional environment. Students within the community team did not have to learn new rules and procedures during the second year of instruction. In this instance, students may have begun learning new subject matter earlier than students starting a second year in a new self-contained class (Cistone & Shneyderman, 2004; Krogman & Van Sant, 2000; McMahon & Wernsman, 2009; Nevin, Cramer, Voigt, & Salazar, 2008).

Social cognitive theory, which is related to the cognitive learning theory, is the foundation of this study. This theory stresses the importance of the environment that surrounds the learner (Bandura, 1986; Beach, 1999). If a learner is able to remain in a familiar environment or culture, the individual can store these expectations and norms in his/her mind. Therefore, the learner is free to comprehend more content because of a familiar learning
environment. In addition to this portion of the social learning theory, self-efficacy plays a significant part. A student’s confidence level may become stronger as acquaintances and relationships become more consistent from year-to-year (Bandura, 1994). The researcher utilized student achievement test scores to evaluate the effectiveness of a traditional, self-contained classroom environment compared to a multiyear community, vertical team environment. Third, fourth, and fifth grade students, who were vertical team pupils, participated in common cross-grade activities (i.e., physical education, lunch, field trips, etc.) and attended ELA, math, social studies, and science classes with the same content specialists for multiple years.

In this causal-comparative study, the researcher analyzed student achievement test data from one elementary school. The conceptual map (see Figure 1) illustrates the theory and classroom organization related to the study. As shown in the conceptual map, self-contained classrooms and community teams provided the framework for the data analysis. The self-contained students, enrolled with one teacher for the first year and a different teacher for a second year, were classified as the first comparison group. In the figure, the self-contained classrooms are highlighted in different colors because of the change in class composition from year one to year two.
Figure 1 Conceptual map indicating the organization of two sets of classrooms within an elementary school over a two-year period

Students enrolled with the same content specialist teachers for two years were classified as the second comparison group. These students, assigned an ELA and a math content specialist for consecutive years, had a third specialist teacher for multiple years who taught science and social studies. Highlighted by the same color, community vertical teams of students shared the same teachers for multiple years. In the one elementary school, there were three community vertical teams.

Significance/Importance of the Study

Public education students in the state of Tennessee and the United States have room to improve in their academic performance in ELA and math (NAEP - Mathematics and Reading 2013, 2013; PISA, 2012). In comparison to all other states, Tennessee ranked 31st in fourth
grade reading and 37th in fourth grade math according to the 2013 NAEP results. The 2012 Programme for International Student Assessment (PISA) indicated the United States ranked 27th out of 34 countries participating in the math assessment. The United States ranked 17th on the reading test. This international test consortium assessed 15-year old students in mathematics, science, and reading literacy. The 2012 PISA test results provided a baseline of test data as Tennessee’s schools began a transition to implement the new standards during the 2011-2012 school year (Achieve, 2014). Tennessee schools fully implemented the internationally benchmarked Common Core State Standards in the 2013-2014 school year (Achieve, 2014; Tennessee Department of Education, 2012a).

By studying optional instructional designs and schedules for upper elementary level classrooms, schools may identify a more conducive and productive way of teaching Common Core State Standards. The results of this study identified methods to support higher academic achievement in an elementary ELA or math classroom. The results from this study may have provided support to elementary schools that have not made academic progress as fast as other state, national, and international schools.

**Definition of Terms**

Accountable Talk: Conceptualized from Vygotsky’s theoretical framework, it is productive, classroom talk that is accountable to the learning community, standards of reasoning, and accurate information (Alexander, 2010; Michaels, O’Connor, & Resnick, 2008; Resnick et al., 2013).
Common Core State Standards: Standards adopted by 43 states which clearly communicate student expectations in English language arts and math at each grade level from kindergarten to 12th grade ("Read The Standards," 2014).

Community: A class of students who share similar departmentalized teachers for more than one school year (Canady & Rettig, 2008).

Content Specialist: A teacher who “focuses on subject area content . . . at deeper levels” (Gerretson et al., 2008, p. 304).

Departmentalization: A scheduling technique which allows teachers to specialize in specific curriculum to teach to multiple classes of students (Becker & Gleason, 1927; Delviscio & Muffs, 2007; Dushane, 1916a, 1916b; Seegers, 1947).

Looping: A class of students who progress to the next grade level while keeping the same teacher for the consecutive year (Bogart, 2002; Burke, 1997; Chirichello & Chirichello, 2001; Franz et al., 2010; Little & Dacus, 1999).

Self-contained Classroom: For one academic school year, “the children are taught all subjects by one teacher” (Lobdell & van Ness, 1963, p. 212). This class contains children with all ranges of abilities, including students with disabilities (Holahan & Costenbader, 2000; Logan & Keefe, 1997).

Methodological Assumptions

The following methodological assumptions were made in conducting the study:

- Teachers followed and adhered to the TCAP test administration guidelines required by the state of Tennessee.
- During their teaching career, teachers were observant of the actions, behaviors, and academic performances of all their students throughout each school year.
• The test data were scored and reported accurately.

• Students answered test questions to the best of their ability.

**Delimitations**

The delimitations within this study are as follows:

• The research focused on one elementary school in Southeast Tennessee.

• The research included students in the third, fourth, and fifth grades.

• The research included students who were scheduled into one of two types of classrooms for a two-year period. One classroom type was classified as self-contained where students were assigned to a single teacher for one year. Upon completion of the first year, the students were assigned to a different teacher for the second year in a self-contained setting. The second classroom type was classified as a vertical, community classroom where students were assigned to an ELA teacher and a math teacher for a two-year period.

• The quantitative data for the study consisted of reading and math test scores.

• The data was limited to two years of TCAP test data (2012-2013 and 2013-2014). In 2014-2015, the school transitioned to a traditional, single-year classroom setting to accommodate the state’s Response to Instruction and Intervention (RTI) plan for reading and math intervention (Tennessee Department of Education, 2013c). The small intervention groups were organized by skill deficits in math or reading. Personnel provided academic support during specific, grade level intervention periods within the schedule. This type of schedule limited the creation of community classrooms where teachers share students from multiple grade levels.

**Limitations**

The limitations within this study included the following:

• During the time period of this study, teachers were adjusting instructional techniques to prepare for the full implementation of the Common Core State Standards. While all teachers in the elementary school were making adjustments, some teachers implemented new instructional practices at a faster rate than other teachers.
• The teachers’ experience and educational status varied within the elementary school.

• The students’ socioeconomic and ethnic background within one elementary school may have prevented the results from being generalizable.
CHAPTER II

LITERATURE REVIEW

This review about elementary school scheduling options and schools’ approaches to effective Common Core instruction is organized into three major sections. The first section addresses theories related to the schema, self-efficacy, social learning, and cognitive learning of elementary school students. The second section highlights research on instructional settings at the upper elementary level, including the departmentalized and community classrooms with looped, vertical teaching teams. The third section highlights recent achievement data for tested sub-groups that includes gender, socioeconomic status, ethnicity, special education, and English language learners.

Schema Theory

“Learners organize existing knowledge into schema structures, and then use the existing structures to assist them in making sense of new information” (Richey, Klein, & Tracey, 2011, p. 58). Learners utilize schema, background knowledge or previously retained information, to influence their comprehension of new materials (McVee et al., 2005). Many times, after reading a passage, readers will recall information as influenced by their culture (Gilakjani & Ahmadi, 2011). Therefore, background information can shape the interpretation of the text read.

A. T. Beck’s cognitive model of psychopathology was developed on the premise of schemas (Kaplan & Saccuzzo, 2009). Beck’s model emphasized how prior experiences
influence someone’s interpretation of a new life event and shape his/her acquisition of additional information. Mergel (1998) noted that a schema is an existing cognitive structure that may be altered when new information is shared.

In the case of elementary education, schema alterations occur when a community of learners interprets a text based on personal experiences and identified evidence (Alexander, 2010; Mergel, 1998). Schemata are functional properties of adaptations between persons and their physical and social environments (Bartlett, 1995). A class’s conclusion about a reading passage reflects a group of students’ prior knowledge and current culture. A learner’s existing schemata undergoes an adjustment when the person joins an altered or new environment (Gallo-Fox, 2009).

Research indicated that retention of content extends beyond an individual’s isolated experience of acquiring information. Studies emphasized the importance of culture on the learner’s comprehension of a new concept or skill. “Because thought, language, speech, and activity are interrelated and symbiotic, we are encouraged to view cognition as a cultural process rather than as only a collection of mental processes” (McVee et al., 2005, p. 535). Sir Frederic Bartlett (as cited in McVee et al., 2005) conducted research on schema and the role and influence culture has on a person’s schemata. Bartlett (as cited in Saito, 2000) shared that schema encompasses cognitive, social, and cultural sensations. “Schemas were necessary to explain the constitutive role of culturally organized experience in individual sense making” (McVee et al., 2005, p. 535). As students become more familiar and understand their learning environment, the students’ mental processes can shift toward a focus on the curriculum taught (Chu, 2014).

Common cultural experiences lead to opportunities for students to focus thinking on new content shared over a period of time (McVee et al., 2005; Putney & Broughton, 2011).
Since the 1930s, reading teachers have utilized instructional strategies that involved the learner’s schema (Johnson, 1982; McVee et al., 2005). Teachers have taught reading lessons by working to activate a student’s background knowledge prior to the reading. This activation of prior knowledge has helped the students make connections to the literature and the cultural experiences they have previously encountered. However, some learners have experienced fewer cultural events than others have.

For example, McVee et al. (2005) described a cultural barrier to reading for a certain group of students. Students who had prior interactions with security and metal detectors activated schema and composed a reasonable thought for not wearing jewelry. However, a student who never flew or spent time at an airport had a more limited understanding of metal detectors and a woman’s dilemma of wearing jewelry. Bransford (1983) found that many times the students’ deficiencies were not based solely on skill knowledge but were influenced by cultural experiences or the absence thereof.

**Self-Efficacy Theory**

A person’s self-efficacy influences the independent learner’s potential as well. “Self-efficacy is a belief in one’s ability to complete a desired task” (Richey et al., 2011, p. 194). Many CCSS lessons involve teachers facilitating a class of students as they learn to solve difficult, multi-step tasks (Altieri, 2009; Barlow & Harmon, 2012; Michaels et al., 2008; Mongeau, 2014; Resnick et al., 2013). The student’s efficacy fluctuates based on the perception formulated through the interaction with other classmates and teachers (Özdemir & Pape, 2013). As students work to complete the CCSS assignment, the teacher plays an important role in balancing task loads that are challenging yet manageable. Strategies, such as the use of
Accountable Talk and text-based questions, enable the teacher to gauge each student’s progress and struggles (Alexander, 2010; Michaels et al., 2008; Resnick et al., 2013). When students observe each other as they perform assigned tasks, their efficacy is affected (Pajares & Valiante, 1997). An individual’s strong, personal perception of self-efficacy equips him/her to be bolder and more prepared to overcome barriers to learning (Bandura, 1986; "P20 Motivation and Learning Lab," 2013). However, when a student faces a difficult task and struggles with the given task, the confidence subsides. The teacher-to-student and student-to-student relationships play an important role in student learning (Corkett, Hatt, & Benevides, 2011). When scheduling classes, administrators need to consider the potential influence fellow students and teachers have on each learner’s self-efficacy.

An understanding of the influence educators and students have on one another in the classroom begins with a consideration of Maslow’s hierarchy of needs (Burleson & Thoron, 2014). In 1943, Abraham Maslow (as cited in McLeod, 2007b) concluded that people are motivated to achieve levels of needs. Maslow introduced the hierarchy with five levels of needs: physiological, safety, social, esteem, and self-actualization. As each of these levels of needs are met, Maslow posited that individuals would be motivated to progress to the next stage of the hierarchy. For instance, the foundation of the hierarchy included physiological needs such as air, food, drink, shelter, and sleep. This premise meant that as people’s physiological needs were met, then their motivation to progress to the next level of needs would increase (McLeod, 2007b).

Beyond the first level of physiological needs, there are four other levels that follow. Safety, the second level of the hierarchy, meant people felt secure and protected from potential elements of harm (Thielke et al., 2012). The third stage, social, comprised of relational needs
that invoked feelings of love and acceptance (Burleson & Thoron, 2014; Huit, 2007; Thielke et al., 2012). The fourth stage of the hierarchy incorporated the need for a person to feel a sense of achievement or mastery through respect from others and oneself (Burleson & Thoron, 2014; Thielke et al., 2012). Maslow (as cited in Burleson & Thoron, 2014) identified the fifth and final level, which many individuals never fully reach, as self-actualization. Self-actualization needs involved people realizing their personal potential, areas of growth, and fulfillment (Burleson & Thoron, 2014; DeSautels, 2014; Huit, 2007; www.psyhcetruth.net, 2011).

As Maslow further developed this hierarchy, he expanded the pyramid with three additional levels. Two of the levels were placed after the fourth original level: esteem (Huit, 2007; www.psyhcetruth.net, 2011). These two levels were identified as cognitive (i.e., a need to know and understand) and aesthetic (i.e., a need for order and beauty). The final level beyond self-actualization was identified as transcendence (i.e., moving beyond self-fulfillment to support others in reaching their full potential).

As students progress through the four levels of Maslow’s basic needs (physiological, safety, social, and esteem), their potential to meet cognitive needs grows stronger (Burleson & Thoron, 2014). In addition, a students’ potential to accomplish challenging academic tasks is more favorable (Burleson & Thoron, 2014). When students are safe and fulfill the need to be socially accepted, their motivation to meet the esteem needs and achieve a task becomes more evident (Burleson & Thoron, 2014).

While many of the physiological and safety needs are met at home with families, schools still face challenges to provide options for students’ needs to be met. For example, in 2014, 19 out of every 10,000 Americans reported living in a homeless situation (National Alliance to End Homelessness, 2014). The National Alliance to End Homelessness reported over 70,000
families lived in unsheltered residence in 2014, a decrease of 7% from the previous year. In Tennessee, 14.7 people to every 10,000 were considered homeless during 2014. Although national reports indicated a 3.7% improvement rate for homelessness from 2013 to 2014, our nation and our schools faced the challenge to address the basic needs of 46,924 homeless youth.

Not only do schools face the challenge of supporting students living in homeless situations, they also must ensure that students are fed. In 2014, Tennessee reported 58.8% of students as economically disadvantaged (Tennessee Department of Education, 2014d). The economically disadvantaged students are those who qualified to receive free or reduced lunch services according to the National School Lunch Program (The ETS Center for Research on Human Capital and Education, 2013). More than 31 million American students received free lunches in 2011 while over 584,000 of the 993,000 Tennessee public school students received free lunch services in 2013 (Tennessee Department of Education, 2014d; The ETS Center for Research on Human Capital and Education, 2013). Furthermore, the United States reported in 2011 the second highest child poverty rate in the world (Adamson, 2012). Out of the 35 most economically advanced countries, the United States reported 23.1% of American children lived in poverty (Adamson, 2012).

Along with the physiological deficiencies facing American children today, students and educators continue to face insecurities related to student safety. “During the 2009–10 school year, 85 percent of public schools recorded that one or more crime incidents had taken place at school, amounting to an estimated 1.9 million crimes” (Robers, Zhang, Truman, & Snyder, 2012, p. iv). In 2010, 23% of public schools reported bullying occurred on campus at least weekly if not daily (United States Department of Education, 2015). Seventeen youth homicides occurred in public schools during the 2009-2010 school year (National Center for Injury Prevention and

The United States Government and the Tennessee Department of Education have issued several resources to address these physiological and safety concerns in schools. The United States Department of Agriculture, overseer of the National School Lunch Program, provided 31 million children daily free or reduced cost lunches in 2011 (The ETS Center for Research on Human Capital and Education, 2013). In 2015, the president’s office proposed a plan to offer several grants to promote safety in schools (United States Department of Education, 2015). The proposal included $50 million School Climate Transformation Grants; $45 million Successful, Safe, and Healthy Students State and Local Grants; $25 million Project Prevent Grants; and $5 million Project School Emergency Response to Violence Grants (United States Department of Education, 2015). These grants would provide financial resources to support schools as they address bullying, physical violence, mental health issues, and other threats to the learning environment. In 2013, the White House placed an emphasis to increase the number of school resource officers and counselors in public schools (The White House, 2013). The National Alliance to End Homelessness (2014) reported “between 2007 and 2013, emergency shelter capacity and permanent supportive housing capacity consistently trended upward” (p.80). The Schools Against Violence in Education Act (SAVE) in Tennessee established requirements for the Tennessee Department of Education to address and report issues related to safety: violent acts, bullying, and weapon usage in schools (Tennessee Department of Education, 2015).
Along with federal and state services to support physiological and safety deficiencies in schools, the teacher plays a critical role in addressing the first two levels of Maslow’s hierarchy as well (Burleson & Thoron, 2014). These basic needs should be met prior to focusing on a student’s academic efficacy, which is known as confidence in completing class assignments (Huitt, 2007). DeSautels (2014), an assistant professor at Marian University, recommended some brain-compatible strategies for teachers to implement. These strategies were organized according to the tiers of Maslow’s hierarchical pyramid. For the first tier related to physiological needs, teachers should provide easy access to water (e.g., water bottles or fountains), time for snacks, a pleasant room environment (e.g., seat arrangement, lighting, temperature, etc.), and a classroom free from audible distractions (e.g., incorporating instrumental music). Next, DeSautels (2014) contributed safety strategies for teachers to assist students through the second level of Maslow’s tiers. For example, one teacher strategy focused on creating a worry drop box for students to write their concerns and/or questions to express their fears and worries in a non-threatening forum (DeSautels, 2014). The author also recommended for teachers to model their own strategies on how to handle insecurities (DeSautels, 2014). In addition, DeSautels (2014) emphasized the importance of class procedures and classroom structure that could lead to a sense of security for the students.

As teachers utilize resources to address the first two levels of Maslow’s hierarchy, they should continue to facilitate a learning environment that breeds positive perceptions about the teacher and classmates (Özdemir & Pape, 2013). A consistent environment with positive perceptions will assist in creating stronger self-efficacy among students. Since the third level of Maslow’s hierarchy involves belongingness and social acceptance, the teacher plays an important role in managing relationships among students. A scheduling strategy, looping, may
give teachers the chance to build stronger bonds among students. Looping nurtures an environment to support classroom community through shared emotional experiences that occur over an extended period of time (Rodriguez & Arenz, 2007). These social bonds can create a supportive family-like climate.

When teachers promote positive peer relationships, implement classroom safeguards, and provide sustenance, students transcend the first three levels of needs to reach the fourth level termed by Maslow as esteem (DeSautels, 2014; Huit, 2007; Maslow, 1962; McLeod, 2007b). At this point, the meaning of self-esteem, self-concept, and self-efficacy should be explored. Bandura (1997) stated, “perceived self-efficacy refers to beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Self-efficacy is task oriented; these tasks usually are specific in nature and change according to a particular assignment or duty. Hughes, Galbraith, and White (2011) said, “self-efficacy perceptions ask ‘can’ questions. . . whereas self-concept competency perceptions ask ‘being’ questions” (p. 278). Schweinle and Mims (2009) explained that self-efficacy references what a person believes s/he can accomplish and not an individual’s feelings toward personal worth.

Considering Maslow’s hierarchical levels, the social and esteem represent an individual’s self-concept and self-esteem confidence levels (DeSautels, 2014; McLeod, 2007b). In the 1950s, Carl Rogers researched self-concept, stating the meaning as a continuum of a person’s positive or negative feelings about oneself (McLeod, 2007a). These feelings are influenced by a person’s experiences with love and acceptance through social interaction. When people experience love and a sense of belongingness, they grow in self-concept. These basic and psychological needs precede the expanded level known as the cognitive, or need-to-know, level (Huit, 2007; Maslow, 1962). Bandura (1977) said, “to raise by persuasion expectations of personal
competence without arranging conditions to facilitate effective performance will most likely lead
to failures that discredit the persuaders and further undermine the recipients’ perceived self-
efficacy” (p. 198). Conceptual views of oneself are often determined by environmental and
social experiences that lead to self-comparison (Hughes et al., 2011; Marsh, 1991). Individuals
need opportunities to build personal perception and confidence about themselves prior to
demonstrating strong confidence levels toward achieving a given task or addressing a cognitive
challenge. “Possessing social-emotional skills with fluency will allow students to better focus on
academic tasks” (Elias & Haynes, 2008, p. 478).

Positive teacher-student relationships can lead to more engaged students who can
effectively navigate their emotions through classroom assignments (Maldonado-Carreño &
Votruba-Drzal, 2011). Joët, Usher, and Bressoux (2011) pointed out that when teachers speak
disapprovingly to their classes, they can hurt their students’ self-efficacy by affecting the
students’ self-esteem. In contrast, teachers can favorably influence students’ self-concept with
encouragement and positive criticism (Bandura, 1997). While perceived teacher support can
benefit all students, it may be more beneficial for low academic achievers. Mercer, Nellis,
Martínez, and Kirk (2011) reported that teachers tend to assist and address the academic deficits
of the weakest achieving students. This form of support influences the lower achieving students
to build positive perceptions and strengthen self-concept and self-efficacy (Mercer et al., 2011).
The methods that a school and classroom teacher take to address the first four levels of Maslow’s
hierarchy may influence students’ confidence in cognitive ability to accomplish a specific
academic task.

An individual’s personal perspective on self-efficacy is likely to be centered around
mastery experiences of a specific task (Bandura, 1997; Hughes et al., 2011). In the case of an
elementary classroom, teachers assign high-level academic tasks or activities to students throughout a day. Haager and Vaughn (2013) pointed out, “The K-5 CCSS require students to access increasingly complex text, across multiple genres, with a higher proportion of informational text” (p. 14). Key instructional shifts associated with the new standards involve reading more complex texts and citing textual evidence in writing (Rothman, 2012; Tennessee Department of Education, 2012a, 2013b). The new math standards require more in-depth thinking about the mathematical processes and steps to reach an answer to a practical math problem. In reference to the strategies associated with the CCSS, Barlow and Shannon (2012) stated, “The expectations require a deeper understanding of the mathematics on the students’ part” (p.506). To assess students’ understanding of the math standards, teachers should provide opportunities for students to incorporate learned mathematical content and practices through “rich, open-ended tasks” (Tennessee Department of Education, 2014a, p. 3). These task-oriented assignments and complex reading passages challenge students to sustain high efficacy within the elementary academic setting. Hughes et al. (2011) said that task influences a person’s perspective on self-confidence.

When students perceive their class as mastery-oriented, they exude higher academic efficacy (Fast et al., 2010). To instruct students using the CCSS, teachers should promote positive interaction with students and share informative feedback as they do their classwork. When teachers demonstrate awareness of students’ progress, they can accurately adjust their instructional methods using the same challenging curriculum to enhance learning (Gentry & Owen, 2004).

One of the more recent instructional strategies implemented in classrooms today is Accountable Talk. The Institute for Learning through the University of Pittsburgh published
details around academically, productive talk that promotes sustainable learning known as Accountable Talk (Michaels et al., 2010). “Accountable Talk is a form of classroom interaction that positions students as thinkers in interaction and encourages students to make their thinking visible for collaborative reasoning” (Resnick et al., 2013, p. 105). The core of instruction centers around the classroom where the student and teacher interacts with the content and materials (Bitter, 2009; Cohen & Ball, 1999). A strong sense of community is important to an elementary school’s learning environment. It leads to an opportunity for more in-depth interaction with the content. The strands related to Accountable Talk emphasize this idea: higher-level thinking, student engagement, and respect within a community of learning. Michaels et al. (2010) spelled out some of the major overarching components related to Accountable Talk. The premise around this dialogic concept centers on “accountability to the learning community, to accurate and appropriate knowledge, and to rigorous thinking” (Michaels et al., 2010, p. 1).

The University of Pittsburgh gained the rights to Accountable Talk in 2013; however, the concepts embedded in this dialogic talk methodology preceded the copyright date (Alexander, 2010; Bitter, 2009; Institute for Learning, 2013; Michaels et al., 2008; Michaels et al., 2010). The roots of this dialogic teaching began in the 1990s in England, France, Italy, Russia, and the United States. In 2008, Hong Kong began training all school officials in this open dialogue system to encourage a more interactive citizenry (Alexander, 2010). In the United States, San Diego City Schools implemented these strategies in the mid-1990s in an effort to improve student achievement in literacy (Bitter, 2009). San Diego educators promoted collaborative reasoning that led to more student engagement and higher-level cognitive demonstrations in the literacy classrooms. The Tennessee Department of Education provided training to educators across the state on Accountable Talk and the strategies in 2013 (Institute for Learning, 2013).
The Institute for Learning trained Tennessee teachers in leadership positions on the productive talk strategy so that they could, in turn, share with district-level and school-level colleagues.

At the onset of 2010s, the introduction and implementation of the CCSS prodded administrators and teachers to schedule and strategize for educators to effectively instruct students using the newly released standards. For decades and now centuries, education has encouraged discussion within the classroom. However, today’s education standards require students to go beyond repeating information; they must be willing to consider other’s perspectives as well as formulate new perspectives and arguments about the topic studied (Crawford, 2012; Haager & Vaughn, 2013; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2014; Porter, McMaken, Hwang, & Yang, 2011). Students must express their evidence-based thinking through verbal and written expression (Alexander, 2010). Cohen and Ball (1999) stated the learning process includes three important features: the teacher, the student, and the material/content. As teachers began teaching CCSS in the classroom, administrators looked at ways to secure curriculum and materials to support the new standards. In addition, administrators faced the challenge to support classroom climates that would foster a community atmosphere of learning with the teacher and student.

Michaels et al. (2010) and the Institute for Learning (2013) described four indicators of an accountable community of learning. One indicator of an effective classroom involved active participation in classroom discussion. Another indicator included students who were attentively listening while individuals stated their evidence to support their opinion or argument. A third indicator that demonstrated a community of learning included students and teachers who would connect and elaborate on the points made by other students. An effective community of learning also should include opportunities for others to feel comfortable to clarify or expand on an
argument (Alexander, 2010; Bitter, 2009). An accurate implementation of the CCSS will be limited until students and teachers can participate in an atmosphere with community and accountability.

Therefore, the teacher-student relationship influences the depth and verbal reasoning displayed in an elementary learning environment. The instructional strength of a lesson begins with the teacher’s understanding of the content. The teacher should comprehend the task or text in order to facilitate discussions with assessing and advancing questions. “The strongest instructional predictor of increased reading comprehension was teachers’ use of higher-level questioning and discussion about the meaning of text” (Bitter, 2009, p. 31). Before students are assigned a complex task or reading passage, the teacher should know the content.

The teacher’s knowledge of content can lead to stronger efficacious students as they participate in the elementary classrooms (Goe & Stickler, 2008). However, content knowledge is only a portion of what teachers should focus upon to help support the implementation of the CCSS. Knowledge of student data can support a teacher’s decision about “instructional programs, student placement, and instructional methods” (Means, Chen, DeBarger, & Padilla, 2011, p. 3). Therefore, the teacher should know at what instructional level the students are performing in ELA and math.

Data points obtained from progress monitoring tests provide individualized data to inform the teacher how each student is grasping reading and math concepts (Tennessee Department of Education, 2013c). Resnick et al. (2013) emphasized the importance of the teacher’s role in facilitating in-depth discussions around a high-level task or complex text. The teacher’s concept of each student’s level of understanding around an assigned task aides the teacher to scaffold the student’s thinking and discussion (Marzano, 2009). To scaffold
instruction, the teacher utilizes the test data and general classroom observation for each student to match a high-level task to the student’s appropriate level of understanding (Scaffolding Literacy Instruction: Strategies for K-4 Classrooms, 2004). The teacher can personalize instruction by introducing new concepts on the student’s prescriptive learning level (Scaffolding Literacy Instruction: Strategies for K-4 Classrooms, 2004; Tennessee Department of Education, 2013c). To scaffold instruction, the teacher models learning, shares the learning with the student, and relinquishes the learning process to the student (Australian Government: Department of Education, 2002). With knowledge of each student’s academic progress and an understanding of the content, the teacher may facilitate the academic dialogue with individualized, appropriate questions to advance the learning process related to the assigned task (Bitter, 2009; Institute for Learning, 2013; Michaels et al., 2008; Michaels et al., 2010; Mikyung, Crosson, & Resnick, 2006; Resnick et al., 2013). The teacher plays a crucial role in students’ perceptions of their self-esteem that can lead to a stronger academic efficacy.

As teachers respond to students’ academic dialogue with encouraging words, structured lessons, and content-based questions, students stay motivated toward completing a challenging assignment (Kerpelman, Eryigit, & Stephens, 2008). Franz et al. (2010) supported this argument with research that indicated higher math achievement scores for those students who had intellectual support from their teachers and peers. Teachers who were consistent with structured lessons helped students to go deeper into the content. The teachers who provided familiar procedures and events freed a student to focus on the content more deeply (Michaels et al., 2010). Also, teachers who were comfortable with their own class procedures had time to prepare, encourage the students and ask more questions to challenge them to go deeper into the subject matter. Those opportunities and discussions empowered the students. As teachers model
an open discussion, students learn and begin to contribute to the community known as the classroom. They begin to experience a “more respectful and grounded discussion” (Michaels et al., 2008, p. 286). This respect and talk leads to esteemed individuals with stronger efficacy (Alexander, 2010).

Furthermore, a consistent teacher who creates and sustains a classroom with relative, complex texts or tasks can challenge students. As teachers and students become more familiar with their class, they can grow stronger in esteem and efficacy, progressing through the levels of Maslow’s hierarchy (Maslow, 1962; Thielke et al., 2012; www.psyhcetruth.net, 2011). Bandura (1997), Mercer et al. (2011), and Pajares and Valiante (1997) shared that students with a higher self-efficacy generally had higher test scores and less anxiety toward the educational setting. These students tended to persevere and exude less anxiety than students who struggled with self-efficacy (Joët et al., 2011). Therefore, positive teacher-student relationships and community spirit of the class may create a climate of more confident individuals regarding friendships and content. Joët et al. (2011) indicated a person’s self-efficacy influenced achievement in math, science, and writing. Fast et al. (2010) stated that “students with higher levels of math self-efficacy achieve higher scores on year-end math performance” (p.735).

**Sociocultural Theory**

A person learns through collaborative experiences (Beach, 1999; Mahn, 1999; Newell et al., 2011); “Learning does not occur in isolation” (Schunk, 2012, Chapter 6, Section 3, para. 15). Sociocultural theorists argue schemas emerge from the social interactions between an individual and the environment. Albert Bandura, author of the Social Cognitive Theory (SCT), stated “perceived collective efficacy is not simply the sum of the efficacy beliefs of individual
members. It is people acting in concert on a shared belief” (Bandura, 2002, p. 271). Compatible with Bandura’s Social Cognitive Theory, Lev Vygotsky’s position on social cultural learning is a form of dialectical constructivism where knowledge evolves from individuals interacting with their environment (Schunk, 2012). Cognition is more than an individual, mental experience; learners and social groups exist to support one another in the learning process. Cognition incorporates social interactions and builds on perceptions formed from others’ viewpoints. Tudge and Scrimsher (2003) stated, “Vygotsky’s theory stresses the interaction of the interpersonal (social), cultural-historical, and individual factors as the key to human development” (p. 207). These theoretical stances emphasize the importance of class composition. Educators need to consider the dynamic of peer relationships. The way learners intermingle with people and objects consistently changes the way a person thinks, essentially learns (Schunk, 2012).

The zone of proximal development (ZPD) is one important concept related to the learner’s culture and to the comprehension of new content (Dougherty Stahl, 2012; Mahn, 1999). ZPD is defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). Vygotsky’s statements regarding problem solving highlight two environments of learning: independent and collaborative. Problem-solving is a key instructional shift in the math CCSS ("Common Core State Standards," 2014). This instructional shift challenges students to dig deeper and explore ways to solve problems within the classroom and beyond. Collaboration with informed peers and adults increases the learning experience of the class.
In addition to the shifts in math instruction, teachers face a transformation in the delivery of ELA standards as well. Informed group discussions and multi-text comparisons set the upper threshold of the learning environment (Alexander, 2010; Bitter, 2009; Institute for Learning, 2013; Michaels et al., 2008; Resnick et al., 2013). As students read higher-level texts, the potential for increasing the learning grows when groups of learners dissect the meaning of the passage through informed discussions with peers. While an individual’s developmental level may be low, the developmental level increases through collaboration. This sets the limit higher. Referring to Vygotsky’s work, Mahn (1999) indicated that effective teaching happens between two thresholds. Learning can still occur independently at the minimal threshold, yet Vygotsky’s ZPD emphasized a greater potential for learning through social interaction and feedback. Considering this premise, an active classroom with teachers asking in-depth questions and students participating in peer-to-peer discussions provide opportunities for academic growth.

Steinberg and Monahan (2007) studied resistance to peer influence in making decisions. In this study, the researchers conducted a survey that included 10 pairs of questions related to favorability toward peer influences. The responses to these survey questions indicated that pre-adolescents between the ages of 10 and 14 favored peer interaction and more social experiences than other groups between 10 and 30 years old. In contrast to their elementary and middle school counterparts, high school students responded with greater resistance to peer influences (Steinberg & Monahan, 2007). Upper elementary level students preferred peer conversations and perspectives as they began to seek autonomy from parents (Steinberg & Monahan, 2007).
Cognitivist Learning Theories

Elementary teachers spend time focusing on introductions, classroom rules, expectations, and schedules when students begin a new school year. The amount of time teachers spend on these concepts relates to the individual’s retention of the materials. As students demonstrate familiarity with class guidelines, they can utilize this knowledge and begin to learn additional concepts (Mergel, 1998; Newell et al., 2011). This process involves two categories of cognitive learning classified as declarative knowledge and procedural knowledge (Rothwell & Kazanas, 2008). Declarative knowledge is the stored facts, concepts, and events (Berge & Hezewijk, 1999). Procedural knowledge refers to the process and addresses how something works (Rothwell & Kazanas, 2008). For instance, the beginning stage of learning the basic facts and teacher explanation of the class rules is declarative knowledge. As students repetitively interact with these daily activities (e.g., formatting papers, lining up, raising a hand to ask a question, knowing appropriate time to go to the restroom, etc.), their knowledge of the routines becomes automatic. The automatic application of knowledge demonstrates procedural knowledge. “With proceduralization, however, knowledge becomes more and more available for use in relevant domains of thinking and problem solving.” (Handbook of College Teaching: Theory and Applications, 1994, p. 11).

In consideration of declarative and procedural knowledge as it relates to the instructional delivery of CCSS reading passages and math tasks, one may look to George A. Miller’s research on a person’s capacity of processing information (Miller, 1956). Miller shared various examples of how a person has a capacity to internalize bits and chunks of information in a given time. In his simplest examples, the author concluded that a person may remember around seven forms of information in one setting. Therefore, considering the CCSS reading instruction around a
complex piece of informational text, students have the opportunity to demonstrate declarative knowledge followed by procedural knowledge (Harmon, 2012). Marzano (2007) gave examples of how students can demonstrate declarative knowledge through a mastery of information, ideas, or concepts that ranges from word recognition to passage comprehension. Harmon (2012) emphasized the procedural knowledge form of cognitive thinking by pointing out how the CCSS verbs (e.g., compare, contrast, and analyze) set expectations for application of declarative knowledge. Upon learning the foundational ELA and math concepts, students can demonstrate mastery of the CCSS by using their higher order thinking skills formed through procedural knowledge (Harmon, 2012; Marzano, 2007).

Furthermore, Fauske and Raybould (2005) have emphasized the importance of individuals sharing routines to support the development of a group’s vision. This shared understanding of group culture and vision leads to the higher end of the ZPD threshold, resulting in a maximum level of learning in a classroom. The collective group’s confidence level increases as each individual’s confidence grows stronger during the learning experience (Goddard, 2001; Goddard, 2000; Schunk, 1985). In other words, a group learns as each group member learns (Fauske & Raybould, 2005).

**Elementary School Schedules**

**Departmentalization**

Some school administrators and teachers have organized instruction in the elementary school through a scheduling method known as departmentalization. Since 1890, educators have placed students into classes with a content specialist teacher (Kilpatrick, 1908). Roland (1962) wrote that departmentalization is a method in which teachers focus on one subject or related
subjects. It is an organizational strategy where students are grouped for instruction. With departmentalization, administrators plan and assign students to class rosters according to subject matter (Stowe, 1967). McGrath and Rust (2002) defined departmentalization as a scheduling model where “students change teachers for instruction in different subjects” (p.40). Departmentalized teachers focus on a specific subject while instructing more than one group of students.

A decade before the 20th century, large American cities, such as New York City and Madison, Indiana, began to show a need for specialized teaching (Dushane, 1916a, 1916b). These populated cities and education systems looked for creative ways to maximize instructors’ time to deliver content to multiple pupils (Kilpatrick, 1908). This metropolitan demand led to systems organizing learning experiences in what became known as departmentalization. By 1913, the United States Department of Education reported that 451 out of 813 schools utilized departmentalized teaching at the seventh and eighth grade level (Dushane, 1916a). In the same report, Dushane shared that schools began to introduce departmentalization to the fourth, fifth, and sixth grades around 1910. In 1912, Madison, Indiana organized its school schedules around five main subjects: reading, arithmetic, language, geography, and history. This rotation schedule gave students time to hear and see important facts around each subject. The data from the first year of implementation indicated the number of failures increased. However, the following three years of departmentalized-style learning resulted in a 60% decrease in failures. A keyword that was included in the Madison Schools scheduling plan was recitation. School officials allocated time for students to recite content back to their classmates and instructors. In contrast to the century-old, departmentalized approach of recitation, today’s teaching strategies and schedules focus on ways to get students to analyze, apply, and synthesize materials (Haager & Vaughn,
During the 1910s, schools emphasized reading and writing during the primary grades of first, second, and third before the intermediate grades of fourth, fifth, and sixth (The Kindergarten and First Grade, 1919). In 1910, members of 28 United States military camps attempted to complete a national survey with 24.9% of the respondents indicating they were illiterate to the point of not being able to read a newspaper (Butler, 1919). With national literacy reports such as this one, the American government emphasized literacy in public education. In addition to an emphasis on literacy, the American government also realized the importance of developing relationships with the families of new immigrants (Butler, 1919). During the early 1900s, foreign families who came to the United States sought ways to become Americanized (Baker, 1919; Butler, 1919; The Kindergarten and First Grade, 1919; Rogers, 1919). The primary grade level teachers were conduits to support five, six, and seven-year old children as they learned what it meant to be a citizen in the United States (Baker, 1919). Public schools and primary grade classrooms were organized in self-contained classrooms so teachers could get to know the students’ and families’ social needs along with their academic needs (The Kindergarten and First Grade, 1919). The entry-level grades were priority evidenced by school administrators who assigned the stronger teachers to the primary grades prior to assigning the other teachers to the intermediate grades (Dushane, 1916a). The upper elementary level teachers began to face the challenge of balancing the art of developing relationships and grasping the variety of content offered within the self-contained classroom (Dushane, 1916a). These intermediate grade teachers faced similar challenges as teachers face today (Mongeau, 2014).
Dushane (1916a) penned that teachers in the central west cities (e.g. Chicago, Indianapolis, Detroit, and St. Louis) were challenged in 1911. The author of this departmentalization study wrote,

> When, however, the intermediate grades are reached, we find that a teacher has to instruct the children not only in drawing, music, spelling, writing, reading, and arithmetic, as in the primary grades, but also in hygiene, language, history, geography, manual work, nature-study, scientific temperance, dictionary study; we find that she has often two divisions in many of the foregoing subjects, is expected to teach the children how to study, supervise their study periods, make daily assignments for each subject, conduct opening exercises, correct papers, keep detailed record and plan books, fill out numerous reports, keep in touch with the home, supervise recess periods, attend teachers’ meetings, and perform other duties assigned her.

> With such a daily routine, many weeks are consumed before the average teacher can sense the peculiarities and needs of even a majority of her pupils, can establish sympathetic and confidential relationships so necessary in grade teaching. (Dushane, 1916a, p. 102)

This account highlighted the responsibilities intermediate teachers managed over 100 years ago. This insight revealed that relationships were important to teachers, but the many responsibilities limited teachers from getting to know their students. The dilemma for educators to balance content with relationships existed in the early 1900s.

While teachers considered this dilemma, departmentalization began to flourish in the 1920s. In Superior, Wisconsin, 86% of teachers favored departmentalized teaching (Becker & Gleason, 1927). These teachers cited several reasons for supporting this way of organizing the delivery of content: better prepared, subject-specific, greater knowledge of developing content, teacher enthusiasm toward subject, and fair distribution of content delivery.

In 1931, Henry J. Otto shared an extensive report that included 31 states’ school structure. This report did not include southern states. Otto (1931) reported that departmentalization began to increase at the elementary school. While the numbers were higher in seventh and eighth grade, the author reported a rise in departmentalization at the six-year
elementary level schools. Out of 203 schools, 37% reported their instructional practice as
departmentalized (Otto, 1931). These schools were located in cities with a population ranging
from 2,500 to 25,000. An additional study was conducted during the early 1930s by J. R.
Gerberich and C. E. Prall (1931), who compared elementary school students’ achievement in
departmentalized classes and self-contained classes. The results indicated fourth, fifth, and sixth
grade mathematics students performed better in a departmentalized setting. Fourth and fifth
grade English students demonstrated higher-level accomplishments in the departmental
classroom as well.

While the majority of the first half of the 20th century indicated increasing numbers of
elementary level departmentalization, studies began to indicate a possible decline in the
scheduling phenomenon. In the early 1940s, Superintendent Thomas C. Prince of Knox County
Schools stated that departmentalization was definitely on the way out of elementary schools
(Prince, 1943). The east Tennessee superintendent reported that 90 of 141 surveyed cities
reported departmentalization during the early decades of the 20th century. However, 44 of the
90 cities reported a discontinuation of departmentalization during the 1940s. As a result of these
findings, Prince stressed the primary objective was to teach students rather than subject-matter
(Prince, 1943; Seegers, 1947). This mid-century report indicated a decline in
departmentalization philosophy. In contrast to these findings, Seegers (1947) reported that 1940
architecture plans for educational facilities still had a content-specific design that included in-
class laboratories, work stations, and extended floor space for theatrical opportunities.

During the 1950s, the organizational structure of departmentalization began to wane. Out
of a survey of 63 cities in the United States, only 5% of the schools within those cities had
departmentalized classrooms in fourth, fifth, and sixth grade (Dunn, 1952). However, only a
decade later, elementary schools began to move away from self-contained classrooms again. Out of 806 elementary schools, 351 schools reported one or more subjects were departmentalized in the 1960s (Roland, 1962). The 1960s study indicated that 68% of the principal respondents said there was no increase nor decrease in departmentalization practices during recent years (Roland, 1962). However, 54% of the 351 schools that said they departmentalized in 1960 reported departmentalizing prior to 1952 (Roland, 1962). This study outlined several subjects as being considered as departmentalized classes including music, physical education, art, math, science, reading, social studies, and library. The majority of these subjects “were departmentalized mainly in grades four, five, and six” (Roland, 1962, p. 3). In addition, Stowe (1967) shared that a resurgence of departmentalization occurred during the mid-1960s, after the previous decade of decreased elementary school departmentalization.

During the 1980s, researchers continued to consider the effects of departmentalization at the upper elementary and middle school levels. McPartland (1990) reported the United States schools still favored departmentalization or some form of specialized scheduling. The research indicated that students had an average of 2.5 teachers during their fifth grade year and 3.8 teachers during their sixth grade year. McPartland used 1985 NAEP and Pennsylvania test scores to support the case for departmentalized teaching. Students who were enrolled in specialized classes had higher achievement scores in science, math, and social studies than students enrolled in a self-contained class. While the majority of McPartland’s research emphasized departmentalization, the author did recommend a gradual progression of departmentalized classes as students advanced to the next grade level at the middle school.

Departmentalization continued to abound in the upper elementary and middle school grades during the last decade of the 20th century. Lee and Smith (1993) acknowledged that
departmentalization could benefit the advanced level student more than the struggling student. While Lee and Smith considered the specialized benefits for students, they also stated that struggling students profited from a more concentrated community-like classroom with one teacher.

Considering the historical features of departmentalization, there are potentially some positive reasons for scheduling students in departmentalized classes. First of all, departmentalization allows for teachers to focus on one content area and build an in-depth approach to teaching a core content subject (DuShane, 1916b). A one-subject specialist teacher meant that students could receive more detailed lessons than one who prepared multiple content area lessons. DuShane (1916b) believed “teachers do better work” (p.158) and “pupils are benefited by contact with several personalities” (p.158). Another positive aspect of departmentalization relates to the teacher’s passion toward the assigned content. Becker and Gleason (1927) posited that enthusiasm in a departmentalized classroom is essential. Teachers usually enjoy teaching their favorite content. Departmentalization also provides opportunities for students to receive instruction from content specialists (Becker & Gleason, 1927; Chan & Jarman, 2004). This scheduling method also allows for students to grow through the teachings and perceptions of several teachers (Chan & Jarman, 2004).

In addition to the instructional benefits that departmentalization can offer, this method may offer fiscal benefits. Becker and Gleason (1927) shared an example of teachers who ordered specific content materials that remained in one general location. For instance, within the departmentalization structure, teachers ordered shared laboratory materials in science while reading teachers purchased more diverse levels of books. Hughes (1919) said that departmentalized teachers could collect large amounts of subject-specific materials.
While a departmentalized setting may benefit students and educators, the scheduling strategy can also lead to some negative results. For instance, student-teacher relationships may not grow as strong as students who are assigned to one teacher in a self-contained classroom (Becker & Gleason, 1927; Pianta & Stuhlman, 2004). This research indicated that the weaker relationships led to lower achievement and more behavioral incidents among students. Along with limited opportunities for relationship building, multiple teachers and physical environments created within a departmentalized schedule may confuse children (DuShane, 1916b). The shift from one room to another room can create confusion and anxiety among students and teachers. In addition, the class changes decrease the amount of instructional time within the school day (McGrath & Rust, 2002). Departmentalized classrooms may also segregate content for students (Becker & Gleason, 1927; Seegers, 1947). This segmented teaching can limit a student’s learning experience because students naturally want to integrate content to complete a thought or draw new conclusions (Seegers, 1947). Stowe (1967) found that teachers often displayed narrow-minded viewpoints as the teacher served in an isolated, professional environment. Stowe also pointed out that departmentalization can restrict flexible and innovative scheduling because of a mutually confined time frame.

Looping

“At all grades teachers should evaluate the developmental levels of their students prior to planning lessons. Teachers need to know how their students are thinking so they can introduce cognitive conflict at a reasonable level” (Schunk, 2012, Chapter 6, Section 2, para. 1). Grant et al. (1996) classified looping as a method where instructors remain with their students for more than one school year. “Looping is a multi-year teaching assignment. This practice has also been
called persistence learning, persisting groups, family-style teaching, multi-year placement, multi-year assignment, and teacher rotation” (Little & Little, 2001, p. 7). Bogart (2002) and Rodriguez and Arenz (2007) emphasized positive student-teacher relationships as a motivating factor for the instructional setting. They attributed looping schedules as a conduit to stimulate stronger relationships. Furthermore, Franz et al. (2010) said this scheduling strategy provides the opportunity for teachers to build upon complex content over multiple years while developing, cultivating, and maintaining a caring classroom.

The looped classroom, or at least a form of this instructional setting, began during the colonial days in America (Rodriguez & Arenz, 2007; Simel, 1998). These schools grouped students across multiple ages. The one-class schoolhouse emulated the concept of multi-year classes. During the 19th century, John Dewey introduced petty schools in rural American schools (Simel, 1998). After a loose start in the United States, the pedagogical structure of looping took hold in Europe during the early 1900s. An Austrian educator, Rudolf Steiner, designed a looping-style school schedule for children in Stuttgart, Germany at the Waldorf Cigarette Factory (Clouder, 1998; Little & Little, 2001; Rodriguez & Arenz, 2007). In 1919, Steiner organized learning by assigning adult mentors to a group of students for multiple years. After several years of teaching the same group of students, Steiner believed the teacher needed some time off. “Class teachers were those who remained with their students for years, advancing with them from grades 1 through 8. Ideally, after eighth grade, class teachers took a year’s sabbatical” (Uhrmacher, 1995, p. 393). In Stuttgart, Steiner designed the school for teachers to connect through the spiritual and emotional needs of the students. The teachers went beyond teaching content and developing a relationship with each student. They worked diligently in developing a community of learners (Clouder, 1998).
Going beyond the American colonial days and early 20th century Germany, the looping educational design has been implemented in Japan, Israel, Italy, and Sweden (Grant et al., 1996; Little & Little, 2001; Palestis, 1994). In these countries, looped schedules have been issued to pre-kindergarten through elementary classes. As students have progressed to the secondary level, these countries have modified the traditional, looped schedule for secondary level students. In the early 1900s, Dr. Maria Montessori introduced her famous schools to the country of Italy (Selden, 2008). This pediatrician emphasized the importance of the development of teacher, student, and parent relationships over several years during a child’s educational experience.

During the late 20th century, Germany organized learning by looping elementary students over a four year period (Zahorik & Dichanz, 1994). Around the same era, schools in China assigned students a different teacher each school year; however, students looped with the same homeroom teacher for two to three years (Liu, 1997).

In the United States, elementary schools continued to execute looping variations during the late 1990s and first years of the 2000s. Bracey (1999) reported positive results in achievement scores and attendance rates with students scheduled in 1990s looped classrooms in East Cleveland, Ohio. In 1999, a report from Iowa schools indicated that looping had positive results on student achievement scores for second and third grade students (Krogman & Van Sant, 2000). In Mississippi, Franz et al. (2010) analyzed looped, middle school mathematics classes from 2003-2005. Average means scores for students in looped classes were 20 points higher than the students in non-looped classes. In 2005 and 2006, a Minnesota district examined the effects of looping classes in an urban elementary setting (Caauwe, 2010). The results revealed no statistical difference between reading students’ scores in a looped classroom compared with students in a non-looped classroom. However, the researcher reported a significant difference
between math students who looped with those who did not loop. These recent examples of looping indicated that American schools continue to seek scheduling strategies that will positively affect students.

As with departmentalization, looping potentially can benefit the student’s academic achievement but for different reasons. Looping can maximize instructional time through multiple years of the same students with the same teacher. The knowledge of the students’ academic learning levels over multiple years can maximize valuable instructional time during the beginning of the second year of teaching the same students (Nichols & Nichols, 2003). In a looping situation, teachers do not have to repeat procedural details as the students have learned classroom procedures from the previous year. Looping provides extended time that may benefit the students. Students know the classroom procedures, and teachers know the students’ strengths and weaknesses (Burke, 1997). Glenn and Nelsen (1989) shared that students need to be heard and feel like they belong. If students have one teacher for multiple years, they have extended time to be heard and connect with a familiar role model. Looped students view their peers and instructors as extended family (Hanson, 1995). Another positive aspect to looping is that it costs very little to implement (Little & Little, 2001). School administrators can schedule the same number of teachers to looped classrooms as they can in departmentalized settings. Therefore, the classroom expenses remain comparable.

In contrast to the benefits of stronger relationships in a looped classroom, the longevity with similar teachers and students may lead to negative consequences. For instance, looping may lead to limited viewpoints. Little and Little (2001) theorized that looping in middle and high school may limit the student’s learning experience. This scheduling concept may restrict students from hearing diverse perspectives and social experiences around the content.
Furthermore, the potential arises for a multi-year negative experience with the same teacher for students who are scheduled in looped classes (Lincoln, 1997). Another potential downside of looping in schools may come at the end of the two-year cycle. Students and teachers may experience loss and grief when they separate to begin a new school year (Rodriguez & Arenz, 2007).

Community, Departmental-Looping

During the last two decades, some schools have looked at ways to take the looping concept and combine it with a departmentalized structure to increase academic achievement. Delviscio and Muffs (2007) explained this departmentalized-looping schedule by describing Bishop Dunn School in New York. These authors wrote,

The new middle elementary program involves a team of three teachers, each of whom has become a specialist in one subject area. They remain as homeroom teachers in the 3rd, 4th, and 5th grades, and twice a day they switch classes and provide students from the other grades specialized instruction in math, social studies or science. (Delviscio & Muffs, 2007, p. 1)

With this schedule, teachers can provide a consistent vertical delivery of instruction from one year to the next. A teacher who plans, instructs, and assesses students in a specific content area for the first year will be informed to specialize instruction for the second and third year to the same students. Along with consistent transitions, Delviscio and Muffs shared that the teacher within a departmentalized-looping setting can build a community with the learners in the classroom and colleagues who teach shared students. A bi-product of this scheduling structure can be a teacher’s enthusiasm toward the specific subject taught. The energetic instruction may generate excitement toward the content material. This scheduling method also can prepare
elementary students for a smoother transition to middle school where most students have multiple teachers.

Canady and Rettig (2008) highlighted a similar departmentalized-looping approach in Virginia during the first decade of the 21st century. A Virginia school, Cougar Elementary, implemented a multi-year team of classes. In an effort to create a small-school concept within a large elementary school, the administration scheduled students with a kindergarten, first, second, and third grade teacher. These community-like models meant that the students would attend core classes in the same wing for the four years of early elementary school. From one year to the next, the students remained in the same community, but began each year with the grade level teacher within the wing. As siblings of students enrolled in the school during these years, the administration placed siblings in the same community with their older brother or sister.

As indicated in Table 1, Cougar Elementary School’s three-year pass rate in the late 1990s was 51% on Virginia’s Standards of Learning English and reading tests. However, students who attended three years in the school’s community environment from 2005-2007 scored an average pass rate of 84% in English and reading tests. Students’ pass rate three-year averages on mathematics assessments in 1998-2000 was 61.5%. Students enrolled in the community classes from 2005-2007 averaged a 91.7% pass rate on the state math assessment (Canady & Rettig, 2008).
Table 1 Standards of Learning Pass Rates at Cougar Elementary School in Virginia

<table>
<thead>
<tr>
<th></th>
<th>English/Reading</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-year average 1998-2000</td>
<td>51%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Three-year average 2005-2007</td>
<td>84%</td>
<td>91.7%</td>
</tr>
</tbody>
</table>

(Canady & Rettig, 2008)

The community classroom experience provided an opportunity for higher achievement results. The main concern or drawback to the community team concept was the potential for a personality conflict between a teacher and student in the community. Administrators had to use specific experiences to guide scheduling decisions for the following year. Most students remained in the same wing for several years (Canady & Rettig, 2008).

While these two modern day examples illustrate a community of learning over multiple years, a century-old account described a form of the departmental-looping concept. In a 1916 intermediate grades study, one teacher responded with the statement that having a student for several years provides better opportunities to correct students’ deficiencies (DuShane, 1916b). While the historical study emphasizes departmentalization, some structures were in place that combined looping and departmentalization concepts. Teachers had direct contact with fourth, fifth, and sixth grade students for two-and-a-half years, which provided opportunities for strengthening relationships. “It secures a better understanding of the character, disposition, ability, and home conditions of the children by the teacher” (DuShane, 1916b, p. 160). In an effort to increase time between the teacher and students, administrators looked at ways to
improve achievement and comprehension of new information. Chang (2008) echoed these indications by stating the departmentalization model decreases the amount of contact time between students and teachers unless combined with looping.

The National Commission on Teaching and America’s Future (NCTAF) emphasized the importance of teachers developing strong communities with collaborative learning (National Commission on Teaching and America's Future, 2003). “Quality teaching and deep understanding depend on reflection that arises from discussion, collaboration, and building knowledge, not only with peers but also with others who are more experienced or advanced” (National Commission on Teaching and America's Future, 2003, p. 17). This report highlighted the importance of student engagement with peers, teachers, parents, and community members. The National Commission emphasized how school administrators should find ways to promote open dialogue between teachers and students through strategic scheduling to promote high-quality learning. While this 2003 report may have contained new information for educators, the community concept was not new to the business world. Wenger and Snyder (2000) wrote how businesses applied community concepts to the organizational structure for growth and development. Wenger referred to these groups of individuals who share a passion for learning about a specific issue or subject as communities of practice. These communities of practice resembled components related to the emerging Accountable Talk concept in the education world (Alexander, 2010; Michaels et al., 2008; Mikyung et al., 2006). In this dialogic community environment, students and teachers actively engaged with each other around a common topic.

As schools reflect on departmental and looping strategies as well as ways to strengthen their community of learning, educators continue to address the dilemma of how to effectively teach elementary students utilizing the newer, high-level standards. In a departmentalized
classroom, teachers can focus on one core content area. In a looped classroom, the teachers can build upon the first-year momentum of relationships to propel the learning process during the early days of the second year. In an effort to maximize the positive aspects of the two schedule options, schools like New York’s Bishop Dunn and Virginia’s Cougar Elementary attempt innovative ways to structure learning environments for improved student achievement (Canady & Rettig, 2008; Delviscio & Muffs, 2007).

**Test Data and Sub-groups**

Males and Females

A major challenge facing teachers today is cultivating a classroom environment to reach the diverse population in schools. School administrators and teachers face the challenge of instructing males and females of all ethnicities, including those students with disabilities or a limited English language background. A review of student data showcases the various successes and shortcomings within tested sub-groups.

First of all, teachers must prepare lessons that will reach a diverse population and build community among both the females and males (Connell & Gunzelmann, 2004). Males demonstrate restlessness and shorter attention spans. They develop anxiety and low self-esteem during their early years as an elementary student (Connell & Gunzelmann, 2004). These anxious moments prevent males from exploring and developing their strengths for learning.

According to the NAEP, females performed higher than males on the reading portion of the 2009, 2011, and 2013 fourth grade test (NAEP - Mathematics and Reading 2013, 2013). Female students reported an average reading scale score of 225 in 2011 and 2013. Males reported a scale score of 218 in 2011 and 219 in 2013. While the fourth grade males closed the
gap in 2013, the females still maintained a positive edge in reading. These NAEP scores supported the ACT Explore Test results for reading: females achieved higher scores at reading (NAEP - Mathematics and Reading 2013, 2013; Olszewski-Kubilius & Turner, 2002).

Fourth grade males performed similarly to females on the NAEP math tests during the same testing period. In 2011, male students scored a scale score of 241 while the females scored a 240 (NAEP - Mathematics and Reading 2013, 2013). In 2013, males scored a 242, and the females ended with an average scale score of 241 (NAEP - Mathematics and Reading 2013, 2013).

A 2008 study in Croatia analyzed test scores of 48,232 fourth grade students to see whether male or female students achieved higher scores (Burusic, Babarovic, & Seric, 2012). The researchers concluded that there was no significant difference in performance output among students who had the same or different gender teachers. Overall, male and female students who had female teachers produced higher achievement scores than students with male teachers. In addition, the results of this study indicated that girls’ end-of-the-year grades were higher than boys. Teachers who favored student personality traits of organization, compliance, and curiosity generally recorded higher grades for female students. However, the achievement tests showed fourth grade boys traditionally scored higher in math and science, yet girls performed higher on the languages portion of the assessments.

Johnson (2013) conducted a study about student achievement in departmentalized and self-contained classrooms. The researcher analyzed 125 students’ TCAP and Discovery Education Assessment (DEA) data and interviewed 19 teachers. The assessment data and teacher responses indicated that males were more successful in a self-contained classroom. From
the teachers’ survey responses, they preferred teaching both males and females in a departmentalized setting.

King and Gurian (2006) described the differences between the brain and its connection to personality differences between genders. In their discussion, these authors explained that natural boy behaviors tend to be impulsive, focused on a single task at a time, and aggressive. The authors contrasted these boy tendencies with girl classroom behaviors: being verbal, multi-tasking, and pleasing others. Linking these behaviors to the brain, King and Gurian cited cerebral effects that influence male and female reactions. For example, Blum (1997) shared that the boys’ cortex region of the brain prompts spatial-mechanical focus on a task while the girls’ outer layer of the cerebrum prompts verbal-emotional responses. Another example where the brain triggers gender-specific behaviors centers on children’s vision. Male retinas have mostly M (magnocellular) cells that are sensitive to motion (King & Gurian, 2006; Kovalik, 2008; Sax, 2006). Female retinas have mostly P (parvocellular) cells that focus on a specific object (King & Gurian, 2006; Kovalik, 2008; Sax, 2006). Furthermore, Bonomo (2010) discussed how the eyes, ears, and nose can affect the conduct of males and females. Males’ eyes tend to focus on objects unlike the females’ eyes who focus on people and their faces. Also, males are inclined to gravitate toward cooler colors such as silver, gray, and blue. Females focus on the brighter and warmer colors like red, yellow, and orange. When it comes to hearing, girls are more sensitive to hearing than boys. As far as the sense of smell is concerned, the female is 100 times more sensitive than the male (Sax, 2006).

The knowledge of these sensory differences between genders can help the teacher prepare differentiated lessons. Kovalik (2008) shared ideas on how teachers may alter setup of the learning environment to address male and female cognitive and behavioral differences. In
regards to vision, teachers need to consider where the boys sit in the classroom. Because of the predominance of M cells in the retina, a male student may be easily distracted if he sits near a window, door, or back of the room (King & Gurian, 2006; Kovalik, 2008; Sax, 2006). Teachers should consider student seating related to gender. Girls may focus on a single assignment such as a worksheet more positively than boys (Kovalik, 2008). The P cells enables females to eliminate surrounding visual distractions (Sax, 2006). Along with visual accommodations, the teacher should consider a child’s hearing capacity. Boys have a greater inclination to speak loudly while the girls respond to softer voices (Kovalik, 2008). When a teacher develops a seating chart, it will help to consider classroom implications. Boys need preferential seating near the front of a room to hear the teacher and avoid visual distractions (Kovalik, 2008). Girls with male teachers may classify the teacher as one who yells even though he is speaking at his normal volume (Kovalik, 2008).

Ethnicity

According to NAEP scores, Asian and white students scored higher than Hispanic, African American, American Indian and other on the 2013 fourth grade math test (NAEP - Mathematics and Reading 2013, 2013). Asian test-takers scored an average scale score of 258 while the Caucasian population scored a scale score average of 250. African American students completed the NAEP test with an average scale score of 224, and Hispanic students earned an average scale score of 231. American Indians scored a 227 on the same math test.

The 2013 NAEP results indicated that the Asian population scored higher than any other ethnicity or race on the fourth grade reading test (NAEP - Mathematics and Reading 2013, 2013). Caucasian students scored a 232 on the same test. African American students completed
the NAEP test with a score of 206, and Hispanic student results averaged a scale score of 207. American Indians scored a 205 on this same assessment.

In a 2014 report, the National Center for Education Statistics indicated that the largest achievement gap between ethnicity groups was the gap between African American and Caucasian students (Kena et al., 2014). The report indicated a 23-point achievement gap between the Caucasian and African American NAEP scale scores in reading. The 2013 NAEP test results revealed a diminishing gap of 17 points between Caucasian and Hispanic reading scale scores. This report went on to highlight the gaps in math scores as well. The average Caucasian scores were 25 points higher than the African Americans. The gap between Caucasian and Hispanic math students was a 19-point difference.

Students with Disabilities

The Individuals with Disabilities Education Act of 2004 identified students with disabilities as a heterogeneous group of children who had disabling conditions that slow down the process to fully comprehend the general curriculum ("Individuals with Disabilities Education Act (IDEA)," 2004). Students with disabilities showed gains on the 2013 NAEP Math Test compared to 17 years earlier in 1996 (NAEP - Mathematics and Reading 2013, 2013). However, the 2011 scores were the same as 2013 test results. Students with disabilities scored a 218 in 2011 and 2013. In 1996, the students with disabilities scored a 204. Students without a disability reported higher scores on the same math tests (NAEP - Mathematics and Reading 2013, 2013). These students scored a scale score of 245 on the 2013 math test. The 2011 test results indicated that non-disabled students scored an average of 244. In 1997, students who were not disabled scored 225.
Consistent with the math results, the NAEP reading test data indicated lower scores for fourth grade students with disabilities compared to fourth grade students with no disabilities (NAEP - Mathematics and Reading 2013, 2013). In 2011, students with disabilities scored their highest mark with a scale score of 186. The fourth graders with disabilities scored an average of 184 in 2013. In 1998, students with disabilities scored a 176. The students who did not have disabilities scored an average of 227 on the 2013 NAEP reading test (NAEP - Mathematics and Reading 2013, 2013). These results were a two-point score gain from the 2011 results of 225. In 1998, the fourth grade non-disabled test-takers scored 217.

English Language Learners

Fourth-grade English language learners, students who are in the process of acquiring English language skills and knowledge, performed consistently on the 2011 and 2013 NAEP math test according to the average scale scores (NAEP - Mathematics and Reading 2013, 2013). During both testing years, the average score was 225. This is a 24-point gain since 1996 when the English language learners scored 201. Fourth-grade English language learners who took the 2013 NAEP Reading Test scored a 187, down a point from the 188 average score in 2011 (NAEP - Mathematics and Reading 2013, 2013). While the scores dropped in 2013, they were still up 13 scale score points from 174 in 1998.

Non-English language learners made slight gains in 2013 on the NAEP Math Test compared to the 2011 results (NAEP - Mathematics and Reading 2013, 2013). The 2013 fourth grade students’ average scale score was 245, up one point from 244 in 2011. Non-English language learners scored 225 in 1996. These students scored a 226 on the 2013 NAEP Reading Test (NAEP - Mathematics and Reading 2013, 2013). The non-English language learners scored
a 225 on the 2011 NAEP Reading Test. They scored an average score of 217 in 1998. Since
then, these scores have grown nine points. In recent years, the gap narrowed between the
English language learners’ scores and the non-English language learners’ scores.
CHAPTER III

METHODOLOGY

Population and Sample

The population for this study consisted of third, fourth, and fifth grade students within one elementary school in southeast Tennessee. Each grade level within this intermediate school contained approximately 115 students, totaling an average of 350 students. In this school, 79% of the students were Caucasian, 9% were African-American, 9% were Hispanic, and 3% were Other (Tennessee Department of Education, 2013a). The school identified 16% of its students as having some form of disability. The English Language Learner subgroup made up 4% of the school population. The school reported 40% of its population as being economically disadvantaged.

Variables

This study focused on two dependent variables. These scores were percentiles based on a 100-point scale. The researcher analyzed math and reading achievement test scores obtained from two years of Tennessee Comprehensive Assessment Program (TCAP) data. The achievement test data were reported by a mean score and measured based on an interval scale. The independent variable within this study was set up as a nominal variable with two levels: the self-contained classrooms and the community classrooms. The self-contained classroom students were taught by one teacher for the first year of instruction and then were taught by a
different teacher for their second year. The community classroom students were taught by the same teacher in a similar subject for two consecutive years.

At the end of a two-year period, the researcher examined fourth and fifth graders’ test scores separately to compare the results from each classroom environment. Other independent variables that were analyzed included test results by gender, ethnicity, economic status, primary language (English/non-English), and special education within both classroom environments. These independent variables were set up as nominal variables using the TCAP reading and TCAP math scores as the dependent variables.

For gender, the researcher assigned a value of one for female and a value of two for male. When measuring ethnicity influence on the test scores, the researcher categorized students into six demographic domains to correlate with Tennessee reporting categories (Tennessee Department of Education, 2012; Tennessee Department of Education, 2013a, 2014d). The six ethnic categories labeled respectively were African-American, Asian, Caucasian, Hispanic, Hawaiian/Pacific Islander and Other (representing any other ethnicity not represented in the first five categories).

The researcher also analyzed data results by comparing the test scores of the economically disadvantaged students in the self-contained classroom to the economically disadvantaged students in the community classroom. The researcher examined test results of the non-economically disadvantaged students as well. In a similar manner, the researcher reviewed data regarding students with disabilities and students with limited English proficiency.
Instrumentation


Research Design

The subjects within this study were third, fourth, and fifth grade students within one elementary school in southeast Tennessee. A control group of students was enrolled in a self-contained classroom with one teacher for the first year of instruction. The control group of students was enrolled in a new self-contained classroom with a different teacher for the second year of instruction. A comparison group was enrolled in a community, vertical classroom where the students shared content specialist instructors for years one and two. This group of students had the same teachers in year one and year two.

These two groups of students were tested at the end of year one and year two of instruction. The researcher analyzed achievement test results from year one and year two by conducting an independent samples t-test to draw any conclusions about the two instructional
environments. The investigator conducted a statistical analysis between the control group and comparison group to determine the relationship between students’ achievement test scores and method of instruction.

The design of the proposed study was mixed methods, utilizing both quantitative and qualitative research strategies. For the quantitative research, data were collected and analyzed in regard to the relationship of elementary classrooms’ achievement test scores. The design for this study was a single-factor, between-groups design with two levels: self-contained and community, looped classroom. Students received instruction in one of the two classroom environments consistently for a two-year period. The environment’s effectiveness was based on a single assessment tool: the Tennessee Comprehensive Assessment Program (TCAP). Students were required to take the state-mandated TCAP achievement test within the last month of the school year. The TCAP test scores were used as the dependent variable.

The researcher examined four questions for the quantitative study. These questions addressed academic performance in different, upper elementary classroom settings.

1. Do elementary English language arts students who complete third and fourth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?
2. Do elementary math students who complete third and fourth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?
3. Do elementary English language arts students who complete fourth and fifth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?
4. Do elementary math students who complete fourth and fifth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

For each question, the researcher determined the variances between these two student groups by conducting independent samples \( t \)-tests. The researcher examined the test scores to determine the difference between the students in a self-contained classroom compared to the students within a community, looped classroom. In addition to determining the variances between the groups, the researcher analyzed the variances between sub-groups: gender, ethnicity, economic status, special education status, and English proficiency.

Table 2 outlines the test analysis in relationship to the first quantitative question. This question focused on English Language Arts (ELA) students who completed third and fourth grade. The table displays the type of tests that were run along with the groups of student scores used to calculate the data.
Question 1: Do elementary English language arts students who complete third and fourth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

<table>
<thead>
<tr>
<th>Tests</th>
<th>ELA Student Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Independent samples t-test</td>
<td>Self-contained</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping</td>
</tr>
<tr>
<td>B. Independent samples t-test</td>
<td>Self-contained males</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping males</td>
</tr>
<tr>
<td>C. Independent samples t-test</td>
<td>Self-contained females</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping females</td>
</tr>
<tr>
<td>D. Independent samples t-test</td>
<td>Self-contained Economically Disadvantaged</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping Economically Disadvantaged</td>
</tr>
<tr>
<td>E. Independent samples t-test</td>
<td>Self-contained Non-Economically Disadvantaged</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping Non-Economically Disadvantaged</td>
</tr>
<tr>
<td>F. ANOVA test</td>
<td>Self-Contained Class</td>
</tr>
<tr>
<td></td>
<td>African American</td>
</tr>
<tr>
<td>G. ANOVA test</td>
<td>Departmentalized, looping Class</td>
</tr>
<tr>
<td></td>
<td>African American</td>
</tr>
<tr>
<td>H. Independent samples t-test</td>
<td>Self-Contained Students with Disabilities</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping Students with Disabilities</td>
</tr>
<tr>
<td>I. Independent samples t-test</td>
<td>Self-Contained Students without Disabilities</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping Students without Disabilities</td>
</tr>
<tr>
<td>J. Independent samples t-test</td>
<td>Self-Contained English Language Learner</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping English Language Learner</td>
</tr>
<tr>
<td>K. Independent samples t-test</td>
<td>Self-Contained Non-English Language Learner</td>
</tr>
<tr>
<td></td>
<td>Departmentalized, looping Non-English Language Learner</td>
</tr>
</tbody>
</table>

Table 3 outlines the test analysis in relationship to the second quantitative question. This question focused on math students who completed third and fourth grade. The table displays the type of tests that were run along with the groups of student scores used to calculate the data.
Table 3 Quantitative Analysis – Question 2

Question 2: Do elementary math students who complete third and fourth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

<table>
<thead>
<tr>
<th>Tests</th>
<th>Math Student Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Independent samples $t$-test</td>
<td>Self-Contained</td>
</tr>
<tr>
<td>B. Independent samples $t$-test</td>
<td>Self-Contained males</td>
</tr>
<tr>
<td>C. Independent samples $t$-test</td>
<td>Self-Contained females</td>
</tr>
<tr>
<td>D. Independent samples $t$-test</td>
<td>Self-Contained Economically Disadvantaged</td>
</tr>
<tr>
<td>E. Independent samples $t$-test</td>
<td>Self-Contained Non-Economically Disadvantaged</td>
</tr>
<tr>
<td>F. ANOVA test</td>
<td>Self-Contained Class</td>
</tr>
<tr>
<td></td>
<td>African American</td>
</tr>
<tr>
<td>G. ANOVA test</td>
<td>Departmentalized, looping Class</td>
</tr>
<tr>
<td></td>
<td>African American</td>
</tr>
<tr>
<td>H. Independent samples $t$-test</td>
<td>Self-Contained Students with Disabilities</td>
</tr>
<tr>
<td>I. Independent samples $t$-test</td>
<td>Self-Contained Students without Disabilities</td>
</tr>
<tr>
<td>J. Independent samples $t$-test</td>
<td>Self-Contained English Language Learner</td>
</tr>
<tr>
<td>K. Independent samples $t$-test</td>
<td>Self-Contained Non-English Language Learner</td>
</tr>
</tbody>
</table>

Table 4 outlines the test analysis in relationship to the third quantitative question. This question focused on ELA students who completed fourth and fifth grade. The table displays the type of tests that were run along with the groups of student scores used to calculate the data.
Question 3: Do elementary English language arts students who complete fourth and fifth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

<table>
<thead>
<tr>
<th>Tests</th>
<th>ELA Student Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Independent samples t-test</td>
<td>Self-Contained</td>
</tr>
<tr>
<td>B. Independent samples t-test</td>
<td>Self-Contained males</td>
</tr>
<tr>
<td>C. Independent samples t-test</td>
<td>Self-Contained females</td>
</tr>
<tr>
<td>D. Independent samples t-test</td>
<td>Self-Contained Economically Disadvantaged</td>
</tr>
<tr>
<td>E. Independent samples t-test</td>
<td>Self-Contained Non-Economically Disadvantaged</td>
</tr>
<tr>
<td>F. ANOVA test</td>
<td>Self-Contained Class</td>
</tr>
<tr>
<td>G. ANOVA test</td>
<td>Departmentalized, looping Class</td>
</tr>
<tr>
<td>H. Independent samples t-test</td>
<td>Self-Contained Students with Disabilities</td>
</tr>
<tr>
<td>I. Independent samples t-test</td>
<td>Self-Contained Students without Disabilities</td>
</tr>
<tr>
<td>J. Independent samples t-test</td>
<td>Self-Contained English Language Learner</td>
</tr>
<tr>
<td>K. Independent samples t-test</td>
<td>Self-Contained Non-English Language Learner</td>
</tr>
</tbody>
</table>

Table 5 outlines the test analysis in relationship to the fourth quantitative question. This question focused on math students who completed fourth and fifth grade. The table displays the type of tests that were run along with the groups of student scores used to calculate the data.
Question 4: Do elementary math students who complete fourth and fifth grade in traditional, self-contained classrooms perform at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting?

<table>
<thead>
<tr>
<th>Tests</th>
<th>Math Student Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Independent samples t-test</td>
<td>Self-Contained</td>
</tr>
<tr>
<td>B. Independent samples t-test</td>
<td>Self-Contained males</td>
</tr>
<tr>
<td>C. Independent samples t-test</td>
<td>Self-Contained females</td>
</tr>
<tr>
<td>D. Independent samples t-test</td>
<td>Self-Contained Economically Disadvantaged</td>
</tr>
<tr>
<td>E. Independent samples t-test</td>
<td>Self-Contained Non-Economically Disadvantaged</td>
</tr>
<tr>
<td>F. ANOVA test</td>
<td>Self-Contained Class</td>
</tr>
<tr>
<td>G. ANOVA test</td>
<td>Departmentalized, looping Class</td>
</tr>
<tr>
<td>H. Independent samples t-test</td>
<td>Self-Contained Students with Disabilities</td>
</tr>
<tr>
<td>I. Independent samples t-test</td>
<td>Self-Contained Students without Disabilities</td>
</tr>
<tr>
<td>J. Independent samples t-test</td>
<td>Self-Contained English Language Learner</td>
</tr>
<tr>
<td>K. Independent samples t-test</td>
<td>Self-Contained Non-English Language Learner</td>
</tr>
</tbody>
</table>

**Procedure**

To begin the process of examining these four questions, the researcher identified third and fourth grade students who enrolled in one southeast Tennessee elementary school at the beginning of the 2012-2013 school year. These third and fourth graders served as the accessible population. The researcher identified the students who finished two years of instruction within
that same school at the end of the 2013-2014 school year. The analyst identified the independent variable as the classroom environment. Students who attended the two years of the study at the same elementary school were identified as one of two subsets: self-contained environment or community, vertical team environment. Students who were enrolled in a traditional, self-contained classroom with one core classroom teacher for each school year were coded as one of the class environments for the study. Then, students who were enrolled within the same community, vertical team classroom for two consecutive years were coded as the second level of the independent variable.

Students who were not enrolled for both years were excluded from the study. Also, students who changed classroom environments within the time frame of the study were excluded from the sample. Both of the excluded groups of students totaled less than 5% of the sample.

To control for confounding variables within this study, the researcher began by assuring the diversity within the control group (self-contained students) is comparable to the comparison group (community, vertical team students). The researcher created a roster of student names who were enrolled in the school’s self-contained classes during the 2012-2013 and 2013-2014 school years. Then, the researcher created a roster of student names who were enrolled in the school’s community, vertical classes during the same two years. After forming the two group rosters, the analyst compared gender, ethnicity, economic status, special education status, and English proficiency between the two groups.

The researcher studied student test scores from one school population. By conducting the study within one school, the same staff and students faced similar school-wide interruptions to the instruction during the two-year period. Within this study, the researcher only utilized data from students in the community vertical team who had the same teachers for both school years.
If students had a change within the community team, those students were not included in the study.

By conducting the study at the third through fifth grade levels, the researcher controlled for varied student developmental changes and focused on students between the ages of 7 and 11 years old. Erik Erikson categorized students into developmental stages including a stage that encompassed similar ages as the students identified in this study (Eccles, 1999). The characteristics of this developmental stage indicated students busily work to prove competency. Taking this into consideration, the researcher controlled for bias by conducting the research after the students completed their two years of classes. Thus, the design of this research was causal-comparative.

Student identification (ID) remained confidential by assigning an ID code to each subject. The researcher served as a district leader within the same school district as the participating school. He had access to the data and maintained confidentiality throughout the data analysis process. The data collector gathered students’ test results from reports provided by the Tennessee Department of Education on a password protected website.

To provide an additional perspective to the four quantitative questions, the researcher included a qualitative component to describe educators’ anecdotal perspectives, anxieties, and general viewpoints about community and self-contained classrooms. The researcher conducted individual interview sessions with teachers who instructed the tested students during the two-year period. Teachers from both class environments, self-contained and community, were interviewed. The researcher asked each teacher questions related to the study. Questions were correlated to the theoretical underpinnings and sub-groups studied within the quantitative section. The educators’ answers to the questions provided insight into the attitudes and comfort
levels related to the two learning environments. A copy of the questions can be found in Appendix C.

During each interview, the researcher began with a general greeting, an overview question, and an answer time process. To maintain a consistent interview time-frame for each participant, the interviewer allocated 30 minutes for each session. For each question asked, the researcher set a two-minute limit for each respondent to answer. The length of time and number of questions were communicated to the respondent at the beginning of each conversation. The researcher assured individuals that all answers would remain confidential. The researcher asked teachers for consent to digitally record each interview at the beginning of every session. After all interviews were completed, responses to each question were analyzed and summarized. The researcher reviewed all answers looking for relationships between the self-contained classroom teacher and community, vertical team teacher responses. Some common or contrasting relationships were clear as the researcher analyzed responses according to each teacher’s experiences with the student subgroup. The answers to these questions provided insight toward future studies around this topic. Upon the completion of the qualitative analysis, the researcher utilized the qualitative and quantitative data to draw final conclusions relative to the study.
CHAPTER IV
DATA

Quantitative Data Results

This causal-comparative study addresses the research hypothesis regarding the impact elementary class settings have on TCAP test results. Students from self-contained classrooms and community, looped classrooms took spring exams in 2013 and 2014. The independent variable, self-contained class and community, looped class settings, was used to determine the relationship it has on the dependent variable, ELA and math achievement tests.

The researcher analyzed reading and math scores of 141 students in a southeast Tennessee school to determine if there was a significant difference in TCAP tests as a result of different instructional environments. The researcher accessed 2013 and 2014 student test percentiles from Tennessee Value-Added Assessment System (TVAAS) reports. As a district-level administrator, the researcher retrieved the data using the educator site for test data. Each student’s scores were entered and organized using SPSS software. Students were organized into two groups: a 2014 fourth grade class and a 2014 fifth grade class. These groups represented the second year of enrollment in either a self-contained or community, looped looping class. Within these groups, the researcher analyzed test scores by gender, ethnicity, socioeconomic status, disabilities, and English proficiency.

The elementary school that houses third through fifth grade students maintained enrollment near 350 students for each year of this study. However, the students who completed a
two-year cycle with available math and reading test scores resulted in 141 students. Table 6 details the self-contained and community, looped class enrollments over the two-year period.

Table 6 Ethnicity of Students in 2013 and 2014 Self-Contained and Community, Loopable Classrooms

<table>
<thead>
<tr>
<th>Student Demographics</th>
<th>Self-Contained (n = 59)</th>
<th>Community, Looped (n = 82)</th>
<th>Total (n = 141)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>African American</td>
<td>7</td>
<td>44%</td>
<td>9</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>67%</td>
<td>1</td>
</tr>
<tr>
<td>Caucasian</td>
<td>45</td>
<td>43%</td>
<td>61</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5</td>
<td>33%</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>59</td>
<td></td>
<td>82</td>
</tr>
</tbody>
</table>

Table 7 outlines the distribution of students by gender. The self-contained classroom pupils consisted of 42% females and 58% males. The community, looped classroom included 44% females and 56% males.
Table 7 Gender of Students in 2013 and 2014 Self-Contained and Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Student Demographics</th>
<th>Self-Contained (n = 59)</th>
<th>Community, Looped (n = 82)</th>
<th>Total (n = 141)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>41%</td>
<td>36</td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>43%</td>
<td>46</td>
</tr>
<tr>
<td>Totals</td>
<td>59</td>
<td>42%</td>
<td>82</td>
</tr>
</tbody>
</table>

For each quantitative question in this study, the researcher considered subgroup performances in both classroom environments as indicated in Table 8. The Economically Disadvantaged subgroup, students who received federal assistance for breakfast and lunch, included 14% of the sample. Out of the 141 students, there were 5% English Language Learners and 3% Student with Disabilities.
An independent samples *t*-test was performed to compare fourth grade ELA TCAP test scores from students who were enrolled for two years in self-contained classrooms and community, looped classrooms. On average, self-contained (*M* = 61.28, *SD* = 22.47) students scored lower than community, looped classroom (*M* = 67.56, *SD* = 22.86) students. However, there was no significant difference (*t* (66) = -1.139, *p* = .969).
Table 9 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores after Two Years in Self-Contained or Community, Looping Classrooms

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>All Students</td>
<td>32</td>
<td>61.28</td>
<td>22.47</td>
<td>36</td>
<td>67.56</td>
</tr>
</tbody>
</table>

Independent samples t-tests were performed to compare fourth grade ELA TCAP test scores based on gender. Table 10 highlights the breakdown of male test scores in the two-year self-contained classroom compared to the male test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples t-tests for females enrolled in the same class settings for two years. On average, self-contained male ($M = 56.90$, $SD = 22.10$) students scored lower than community, looped classroom male ($M = 67.68$, $SD = 23.85$) students. However, there was no significant difference ($t (40) = -1.52$, $p = .579$). Average female scores indicated a slight advantage for self-contained ($M = 68.58$, $SD = 22.05$) students compared to community, looped ($M = 67.36$, $SD = 22.08$) students. Nevertheless, there was no significant difference ($t (24) = .141$, $p = .542$).
Table 10 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores by Gender after Two Years in Self-Contained or Community, Loopied Classrooms

<table>
<thead>
<tr>
<th>Gender</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Males</td>
<td>20</td>
<td>56.90</td>
<td>22.10</td>
<td>22</td>
<td>67.68</td>
</tr>
<tr>
<td>Females</td>
<td>12</td>
<td>68.58</td>
<td>22.05</td>
<td>14</td>
<td>67.36</td>
</tr>
</tbody>
</table>

Independent samples t-tests were performed to compare fourth grade ELA TCAP test scores based on socioeconomic status. Table 11 showcases the breakdown of economically disadvantaged test scores in the two-year self-contained classroom compared to the economically disadvantaged test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples t-tests for the non-economically disadvantaged enrolled in the same class settings for two years. On average, the economically disadvantaged students in self-contained ($M = 62.00, SD = 24.63$) classrooms scored higher than did the economically disadvantaged students in community, looped ($M = 48.33, SD = 24.63$) classrooms. However, there was no significant difference ($t(7) = .699, p = .779$). Average non-economically disadvantaged scores favored community, looped ($M = 69.30, SD = 21.48$) students compared to self-contained ($M = 61.12, SD = 22.46$) students. However, there was no significant difference ($t(57) = -1.425, p = .864$).
Table 11 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores by Socioeconomics after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Economics</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>ED</td>
<td>6</td>
<td>62.00</td>
<td>24.63</td>
<td>3</td>
<td>48.33</td>
</tr>
<tr>
<td>NED</td>
<td>26</td>
<td>61.12</td>
<td>22.46</td>
<td>33</td>
<td>69.30</td>
</tr>
</tbody>
</table>

Note. ED = Economically Disadvantaged; NED = Non-Economically Disadvantaged

When examining ethnicity performance in fourth grade ELA self-contained classrooms for two consecutive years, a one-way analysis of variance (ANOVA) indicated that there was a significant difference in test scores [F(2,28) = 6.96, p = .004]. Therefore, the researcher conducted a Tukey post hoc test. This test revealed a significant difference between African American (M = 27.67, SD = 12.10) and Caucasian (M = 66.29, SD = 18.46) mean test scores (p = .005). However, the mean scores of Hispanic (M = 47.25, SD = 21.55) students were not significantly different from the other two ethnic subgroups.
Table 12 One-Way ANOVA Results of 2014 Fourth Grade ELA TCAP Percentile Scores by Ethnicity after Two Years in Self-Contained Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4,736.335</td>
<td>2</td>
<td>2,368.167</td>
<td>6.963</td>
<td>.004*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9,522.375</td>
<td>28</td>
<td>340.085</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14,258.710</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05

The researcher examined performance of fourth grade students enrolled in ELA community, looped classrooms for two consecutive years. These scores included achievement data from African American, Asian, Caucasian, and Hispanic students. A one-way ANOVA indicated that there was no significant difference in test scores [F(3,31) = 1.489, p = .237].

Table 13 One-Way ANOVA Results of 2014 Fourth Grade ELA TCAP Percentile Scores by Ethnicity after Two Years in Community, Looping Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2,212.338</td>
<td>3</td>
<td>737.446</td>
<td>1.489</td>
<td>.237</td>
</tr>
<tr>
<td>Within Groups</td>
<td>15,355.262</td>
<td>31</td>
<td>495.331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17,567.600</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05
Independent samples t-tests were performed to compare fourth grade ELA TCAP test scores based on student disabilities. One student was coded as a student with disabilities. The remainder of the fourth grade students were coded as students without disabilities. Therefore, Table 14 shows the results of the independent samples t-tests for students without disabilities enrolled in the same class settings, self-contained or community-looped, for two years. On average, self-contained ($M = 61.28$, $SD = 22.47$) students scored less than community, looped ($M = 68.09$, $SD = 22.97$) students. However, there was no significant difference ($t (65) = -1.22$, $p = .994$).

Table 14 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores by Disabilities after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Disabilities</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$ $M$ $SD$</td>
<td>$n$ $M$ $SD$ $t$ $df$ $p$</td>
</tr>
<tr>
<td>SWD</td>
<td>32 61.28 22.47</td>
<td>35 68.09 22.97 -1.22 65 .994</td>
</tr>
</tbody>
</table>

*Note. SWD = Students with Disabilities; SWOD = Students Without Disabilities*

Independent samples t-tests were performed to compare fourth grade ELA TCAP test scores based on English proficiency. Two students were coded as English language learners (ELL). The remainder of the fourth grade students were coded as non-English language learners (Non-ELL). Table 15 shows the results of the independent samples t-tests for non-ELL students enrolled in the same class settings, self-contained or community-looped, for two years. Mean
scores for self-contained ($M = 62.06$, $SD = 22.39$) classrooms were less than community, looped ($M = 69.26$, $SD = 20.75$) classrooms. However, there was no significant difference ($t (64) = -1.35, p = .681$).

Table 15 Independent Samples T-test Results of 2014 Fourth Grade ELA TCAP Percentile Scores by English Proficiency after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$n$</td>
<td>$M$</td>
</tr>
<tr>
<td>ELL</td>
<td>Insufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-ELL</td>
<td>31</td>
<td>62.06</td>
<td>22.39</td>
<td>35</td>
<td>69.26</td>
</tr>
</tbody>
</table>

*Note. ELL = English Language Learners; Non-ELL = Non-English Language Learners*

An independent samples $t$-test was performed to compare fourth grade Math TCAP test scores from students who were enrolled for two years in self-contained classrooms and community, looped classrooms. On average, the scores for self-contained ($M = 56.61$, $SD = 23.57$) classrooms were less than the community, looped ($M = 59.95$, $SD = 24.55$) classrooms. However, there was no significant difference ($t (66) = -.568, p = .572$).
Table 16 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>All Students</td>
<td>31</td>
<td>56.61</td>
</tr>
</tbody>
</table>

Independent samples t-tests were performed to compare fourth grade Math TCAP test scores based on gender. Table 17 highlights the breakdown of male test scores in the two-year self-contained classroom compared to the male test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples t-tests for females enrolled in the same class settings for two years. The average male scores for self-contained ($M = 54.84, SD = 25.90$) classrooms were less than the community, looped ($M = 60.91, SD = 26.39$) classrooms. Even so, there was no significant difference ($t (40) = -.748, p = .459$). On average, female scores indicated self-contained ($M = 59.42, SD = 20.10$) students scored slightly higher than community, looped ($M = 58.36, SD = 22.05$) students. Nevertheless, there was no significant difference ($t (24) = .127, p = .900$).
Table 17 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores by Gender after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Gender</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Males</td>
<td>19</td>
<td>54.84</td>
<td>25.90</td>
<td>23</td>
<td>60.91</td>
</tr>
<tr>
<td>Females</td>
<td>12</td>
<td>59.42</td>
<td>20.10</td>
<td>14</td>
<td>58.36</td>
</tr>
</tbody>
</table>

Independent samples t-tests were performed to compare fourth grade Math TCAP test scores based on socioeconomic status. Table 18 showcases the breakdown of economically disadvantaged test scores in the two-year self-contained classroom compared to the economically disadvantaged test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples t-tests for the non-economically disadvantaged enrolled in the same class settings for two years. On average, the economically disadvantaged scores for self-contained ($M = 55.60, SD = 15.32$) students were higher than community, looped ($M = 42.50, SD = 27.15$) students. Nevertheless, there was no significant difference ($t (7) = .025, p = .388$). The non-economically disadvantaged mean scores indicated self-contained ($M = 56.81, SD = 25.08$) students were less than the community, looped ($M = 62.06, SD = 23.80$) students. However, there was no significant difference ($t (57) = -.822, p = .415$).
Table 18 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores by Socioeconomics after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Economics</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>ED</td>
<td>5</td>
<td>55.60</td>
<td>15.32</td>
<td>4</td>
<td>42.50</td>
</tr>
<tr>
<td>NED</td>
<td>26</td>
<td>56.81</td>
<td>25.08</td>
<td>33</td>
<td>62.06</td>
</tr>
</tbody>
</table>

Note. ED = Economically Disadvantaged; NED = Non-Economically Disadvantaged

When examining ethnicity performance in fourth grade, math self-contained classrooms for two consecutive years, a one-way ANOVA indicated that there was a significant difference in test scores \[F(2,28) = 9.762, p = .001\]. Therefore, the researcher conducted a Tukey post hoc test. This test revealed a significant difference between African American \((M = 12.00, SD = 7.55)\) and Caucasian \((M = 62.58, SD = 20.10)\) mean test scores (sig. = .001). However, the mean scores of Hispanic \((M = 46.00, SD = 18.11)\) students indicated no significant difference from the other two ethnic subgroups.
Table 19 One-Way ANOVA Results of 2014 Fourth Grade Math TCAP Percentile Scores by Ethnicity after Two Years in Self-Contained Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7,241.84</td>
<td>2</td>
<td>3,620.922</td>
<td>9.762</td>
<td>.001*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>10,385.83</td>
<td>28</td>
<td>370.923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17,627.68</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05

The researcher examined performance of fourth grade students enrolled in math community, looped classrooms for two consecutive years. These scores included achievement data from African American, Caucasian, and Hispanic students. A one-way ANOVA indicated that there was no significant difference in test scores [F(2,31) = 3.145, p = .057].

Table 20 One-Way ANOVA Results of 2014 Fourth Grade Math TCAP Percentile Scores by Ethnicity after Two Years in Community, looped Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3,013.789</td>
<td>2</td>
<td>1,506.895</td>
<td>3.145</td>
<td>.057</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14,854.328</td>
<td>31</td>
<td>479.172</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17,868.118</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05
Independent samples $t$-tests were performed to compare fourth grade Math TCAP test scores based on student disabilities. One student was coded as a student with disabilities. The remainder of the fourth grade students were coded as students without disabilities. Therefore, Table 21 shows the results of the independent samples $t$-tests for students without disabilities enrolled in the same class settings, self-contained or community-looped, for two years. On average, the scores for self-contained ($M = 57.00, SD = 23.88$) students were less than the community, looped ($M = 59.95, SD = 24.55$) students. However, there was no significant difference ($t (65) = -.494, p = .623$).

Table 21 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores by Disabilities after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Disabilities</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>$t$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$n$</td>
<td>$M$</td>
</tr>
<tr>
<td>SWD</td>
<td>30</td>
<td>57.00</td>
<td>23.88</td>
<td>37</td>
<td>59.95</td>
</tr>
</tbody>
</table>

Note. SWD = Students with Disabilities; SWOD = Students Without Disabilities

Independent samples $t$-tests were performed to compare fourth grade Math TCAP test scores based on English proficiency. Two students were coded as English language learners (ELL). The remainder of the fourth grade students were coded as non-English language learners (Non-ELL). Table 22 shows the results of the independent samples $t$-tests for non-ELL students enrolled in the same class settings, self-contained or community-looped, for two years. On
average, self-contained ($M = 56.9$, $SD = 23.92$) students scored less than the community, looped ($M = 61.31$, $SD = 23.45$) students. Nonetheless, there was no significant difference ($t (64) = -.753$, $p = .454$).

Table 22 Independent Samples T-test Results of 2014 Fourth Grade Math TCAP Percentile Scores by English Proficiency after Two Years in Self-Contained or Community, Loop Classrooms

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$n$</td>
<td>$M$</td>
</tr>
<tr>
<td>ELL</td>
<td>Insufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-ELL</td>
<td>30</td>
<td>56.9</td>
<td>23.92</td>
<td>36</td>
<td>61.31</td>
</tr>
</tbody>
</table>

Note. ELL = English Language Learners; Non-ELL = Non-English Language Learners

An independent samples $t$-test was performed to compare fifth grade ELA TCAP test scores from students who were enrolled for two years in self-contained classrooms and community, looped classrooms. The mean scores for self-contained ($M = 48.50$, $SD = 25.78$) students were less than community, looped ($M = 53.53$, $SD = 27.73$) students. However, there was no significant difference ($t (68) = -.773$, $p = .442$).
Table 23 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores after Two Years in Self-Contained or Community, looped Classrooms

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th></th>
<th>Community, looped</th>
<th></th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td>30</td>
<td>48.50</td>
<td>25.78</td>
<td>40</td>
<td>53.53</td>
<td>27.73</td>
<td>-0.773</td>
</tr>
</tbody>
</table>

Independent samples t-tests were performed to compare fifth grade ELA TCAP test scores based on gender. Table 24 highlights the breakdown of male test scores in the two-year self-contained classroom compared to the male test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples t-tests for females enrolled in the same class settings for two years. On average, the male scores for self-contained ($M = 43.73$, $SD = 21.17$) classrooms were less than the community, looped ($M = 50.78$, $SD = 25.85$) classrooms. However, there was no significant difference ($t (36) = -.880$, $p = .385$). Female mean test results indicated self-contained ($M = 53.27$, $SD = 29.66$) students scored less than community, looped ($M = 57.24$, $SD = 30.50$) students. Nevertheless, there was no significant difference ($t (30) = -.372$, $p = .712$).
Table 24 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores by Gender after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Gender</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Males</td>
<td>15</td>
<td>43.73</td>
<td>21.17</td>
<td>23</td>
<td>50.78</td>
</tr>
<tr>
<td>Females</td>
<td>15</td>
<td>53.27</td>
<td>29.66</td>
<td>17</td>
<td>57.24</td>
</tr>
</tbody>
</table>

Independent samples $t$-tests were performed to compare fifth grade ELA TCAP test scores based on socioeconomic status. Table 25 showcases the breakdown of economically disadvantaged test scores in the two-year self-contained classroom compared to the economically disadvantaged test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples $t$-tests for the non-economically disadvantaged enrolled in the same class settings for two years. On average, the economically disadvantaged scores for self-contained ($M = 40.17, SD = 32.05$) students were less than the community, looped ($M = 55.00, SD = 34.47$) students. However, there was no significant difference ($t (9) = -.739, p = .479$). The non-economically disadvantaged mean results indicated self-contained ($M = 50.58, SD = 24.33$) students scored less than the community, looped ($M = 53.31, SD = 27.24$) students. Nevertheless, there was no significant difference ($t (57) = -.395, p = .695$).
Table 25 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores by Socioeconomics after Two Years in Self-Contained or Community, Looping Classrooms

<table>
<thead>
<tr>
<th>Economics</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>ED</td>
<td>6</td>
<td>40.17</td>
<td>32.05</td>
<td>5</td>
<td>55.00</td>
</tr>
<tr>
<td>NED</td>
<td>24</td>
<td>50.58</td>
<td>24.33</td>
<td>35</td>
<td>53.31</td>
</tr>
</tbody>
</table>

Note. ED = Economically Disadvantaged; NED = Non-Economically Disadvantaged

The researcher examined performance of fifth grade students enrolled in ELA self-contained classrooms for two consecutive years. These scores included achievement data from African American, Caucasian, and Hispanic students. A one-way ANOVA indicated there was no significant difference in test scores [F(2,26) = 2.116, p = .141].

Table 26 One-Way ANOVA Results of 2014 Fifth Grade ELA TCAP Percentile Scores by Ethnicity after Two Years in Self-Contained Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2,698.075</td>
<td>2</td>
<td>1,349.037</td>
<td>2.116</td>
<td>.141</td>
</tr>
<tr>
<td>Within Groups</td>
<td>16,575.167</td>
<td>26</td>
<td>637.506</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19,273.241</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05
When examining ethnicity performance in fifth grade ELA community, looped classrooms for two consecutive years, a one-way ANOVA indicated that there was a significant difference in test scores \(F(2,37) = 6.095, p = .005\). Therefore, the researcher conducted a Tukey post hoc test. This test revealed a significant difference between African American \((M = 26.43, SD = 29.56)\) and Caucasian \((M = 60.81, SD = 23.44)\) mean test scores (sig. = .006). However, the mean scores of Hispanic \((M = 35.50, SD = 28.99)\) students indicated no significant difference from the other two ethnic subgroups.

Table 27 One-Way ANOVA Results of 2014 Fifth Grade ELA TCAP Percentile Scores by Ethnicity after Two Years in Community, Loopied Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7,432.922</td>
<td>2</td>
<td>3,716.461</td>
<td>6.095</td>
<td>.005*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>22,561.053</td>
<td>37</td>
<td>609.758</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29,993.975</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05

Independent samples \(t\)-tests were performed to compare fifth grade ELA TCAP test scores based on student disabilities. Three students were coded as students with disabilities. The remainder of the fifth grade students were coded as students without disabilities. Therefore, Table 28 shows the results of the independent samples \(t\)-tests for students without disabilities enrolled in the same class settings, self-contained or community-looped, for two years. On average, students in self-contained \((M = 50.68, SD = 25.26)\) classrooms scored less than students
in the community, looped ($M = 54.36, SD = 27.58$) classrooms. However, there was no significant difference ($t (65) = -0.558, p = 0.579$).

Table 28 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores by Disabilities after Two Years in Self-Contained or Community, looped Classrooms

<table>
<thead>
<tr>
<th>Disabilities</th>
<th>Self-Contained</th>
<th>Community, looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$</td>
</tr>
<tr>
<td>SWD</td>
<td>Insufficient</td>
<td></td>
</tr>
<tr>
<td>SWOD</td>
<td>28</td>
<td>50.68</td>
</tr>
</tbody>
</table>

*Note. SWD = Students with Disabilities; SWOD = Students Without Disabilities*

Independent samples $t$-tests were performed to compare fifth grade ELA TCAP test scores based on English proficiency. Three students were coded as English language learners (ELL). The remainder of the fifth grade students were coded as non-English language learners (Non-ELL). Table 29 shows the results of the independent samples $t$-tests for non-ELL students enrolled in the same class settings, self-contained or community-looped, for two years. The mean scores for self-contained ($M = 48.46, SD = 25.61$) students were less than the community, looped ($M = 54.51, SD = 27.37$) students. However, there was no significant difference ($t (65) = -0.916, p = 0.363$).
Table 29 Independent Samples T-test Results of 2014 Fifth Grade ELA TCAP Percentile Scores by English Proficiency after Two Years in Self-Contained or Community, Loop教室s

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>ELL Insufficient</td>
<td>28</td>
<td>48.46</td>
</tr>
</tbody>
</table>

*Note. ELL = English Language Learners; Non-ELL = Non-English Language Learners*

An independent samples t-test was performed to compare fifth grade Math TCAP test scores from students who were enrolled for two years in self-contained classrooms and community, looped classrooms. On average, the scores for self-contained ($M = 49.33, SD = 32.04$) students were less than community, looped ($M = 43.68, SD = 30.91$) students. However, there was no significant difference ($t (66) = .727, p = .470$).

Table 30 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores after Two Years in Self-Contained or Community, Loop教室s

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>All Students</td>
<td>27</td>
<td>49.33</td>
</tr>
</tbody>
</table>

97
Independent samples $t$-tests were performed to compare fifth grade Math TCAP test scores based on gender. Table 31 highlights the breakdown of male test scores in the two-year self-contained classroom compared to the male test scores of those enrolled in two years of a community, looped classroom. The table also shows the results of the independent samples $t$-tests for females enrolled in the same class settings for two years. On average, the male scores for self-contained ($M = 41.20, SD = 31.63$) students were lower than community, looped ($M = 47.27, SD = 31.19$) students. However, there was no significant difference ($t (35) = -0.578, p = .567$). Female mean results indicated self-contained ($M = 59.50, SD = 30.83$) students had higher scores than community, looped ($M = 39.53, SD = 30.89$) students. Nevertheless, there was no significant difference ($t (29) = .770, p = .090$).

Table 31 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores by Gender after Two Years in Self-Contained or Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Gender</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
<th>$t$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$n$</td>
<td>$M$</td>
</tr>
<tr>
<td>Males</td>
<td>15</td>
<td>41.20</td>
<td>31.63</td>
<td>22</td>
<td>47.27</td>
</tr>
<tr>
<td>Females</td>
<td>12</td>
<td>59.50</td>
<td>30.83</td>
<td>19</td>
<td>39.53</td>
</tr>
</tbody>
</table>

Independent samples $t$-tests were performed to compare fifth grade Math TCAP test scores based on socioeconomic status. Table 32 showcases the breakdown of economically disadvantaged test scores in the two-year self-contained classroom compared to the economically disadvantaged test scores of those enrolled in two years of a community, looped classroom. The
The researcher examined performance of fifth grade students enrolled in math self-contained classrooms for two consecutive years. The scores included achievement data from African American, Caucasian, and Hispanic students. A one-way ANOVA indicated that there was no significant difference in test scores \([F(2,25) = 1.574, p = .227]\).
When examining ethnicity performance in fifth grade math community, looped classrooms for two consecutive years, a one-way ANOVA indicated that there was no significant difference in test scores \[F(2,38) = 1.917, p = .161\].

Table 34 One-Way ANOVA Results of 2014 Fifth Grade Math TCAP Percentile Scores by Ethnicity after Two Years in Community, Looped Classrooms

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3,502.151</td>
<td>2</td>
<td>1,751.075</td>
<td>1.917</td>
<td>.161</td>
</tr>
<tr>
<td>Within Groups</td>
<td>34,714.727</td>
<td>38</td>
<td>913.545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38,216.878</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05
Independent samples $t$-tests were performed to compare fifth grade Math TCAP test scores based on student disabilities. Two students were coded as students with disabilities. The remainder of the fifth grade students were coded as students without disabilities. Therefore, Table 35 shows the results of the independent samples $t$-tests for students without disabilities enrolled in the same class settings, self-contained or community-looped, for two years. On average, the scores for self-contained ($M = 50.96, SD = 31.52$) students were higher than community, looped ($M = 44.58, SD = 30.76$) students. However, there was no significant difference ($t(64) = .816, p = .417$).

Table 35 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores by Disabilities after Two Years in Self-Contained or Community, Looping Classrooms

<table>
<thead>
<tr>
<th>Disabilities</th>
<th>Self-Contained</th>
<th>Community, Looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$  $M$  $SD$</td>
<td>$n$  $M$  $SD$  $t$  $df$  $p$</td>
</tr>
<tr>
<td>SWD</td>
<td>Insufficient</td>
<td></td>
</tr>
<tr>
<td>SWOD</td>
<td>26  50.96  31.52</td>
<td>40  44.58  30.76</td>
</tr>
</tbody>
</table>

*Note. SWD = Students with Disabilities; SWOD = Students Without Disabilities*

Independent samples $t$-tests were performed to compare fifth grade Math TCAP test scores based on English proficiency. Three students were coded as English language learners (ELL). The remainder of the fifth grade students were coded as non-English language learners (Non-ELL). Table 36 shows the results of the independent samples $t$-tests for non-ELL students enrolled in the same class settings, self-contained or community-looped, for two years. On
average, the scores for self-contained ($M = 48.64, SD = 33.23$) students were higher than community, looped ($M = 44.18, SD = 31.14$) students. Nevertheless, there was no significant difference ($t (63) = .548, p = .586$).

Table 36 Independent Samples T-test Results of 2014 Fifth Grade Math TCAP Percentile Scores by English Proficiency after Two Years in Self-Contained or Community, Looping Classrooms

<table>
<thead>
<tr>
<th></th>
<th>Self-Contained</th>
<th>Community, Looped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$M$</td>
</tr>
<tr>
<td>ELL</td>
<td>Insufficient</td>
<td></td>
</tr>
<tr>
<td>Non-ELL</td>
<td>25</td>
<td>48.64</td>
</tr>
</tbody>
</table>

*Note.* ELL = English Language Learners; Non-ELL = Non-English Language Learners

**Qualitative Data Results**

The researcher interviewed self-contained and community, looped classroom teachers who taught in the southeast Tennessee school’s during the 2012-13 and 2013-14 school years. The data collector asked each of the remaining teachers who were employed in the district a set of similar questions (Appendix C). Each teacher had a 30-minute time frame to respond to the series of questions. Each respondent agreed to be audio-recorded for the purpose of accurate transcription. The researcher recorded the self-contained teachers’ (SCT) and community teachers’ (CT) answers using Microsoft OneNote (Appendix D). The following responses gave the researcher insight to the educators’ anecdotal perspectives, anxieties, and general viewpoints about community and self-contained classrooms.
To begin each interview session, the researcher asked teachers to share their perspective on what learning environment was most advantageous for third, fourth, and fifth grade students. The data collector asked each of the six community, looped teachers and the five self-contained teachers, “What are your thoughts on departmentalization compared to self-contained classrooms at the upper elementary level?” He recorded each teacher’s answers and analyzed the data to find any common perspectives.

Out of the 11 participants in this study, 10 teachers shared that they preferred departmentalization as an instructional setting for upper elementary students. Four of the five self-contained teachers stated that they liked departmentalization because they felt better prepared with lessons. However, one self-contained teacher, SCT2, shared that she “can incorporate a lot of reading skills into other subjects” when teaching multiple subjects. Referring to teaching and preparing specific content lessons, CT1 said she could “zone in on a specific one” in a departmentalized setting. CT2 said she preferred “a singular focus… I can hone my attention onto fewer standards.” Another community teacher, CT5, stated “you can teach your strengths” by teaching a certain subject.

In addition to a teacher focus on preparation, the participants expressed a student perspective toward self-contained and community, looped classrooms. SCT2 stated that the self-contained setting “gives third graders the chance to be third graders.” SCT2 continued to say, “For those kids who struggle, you can focus with them a little bit more. And, then you can extend the learning for those who need enrichment.” In contrast, SCT4 responded to the first question by saying that the community, looped approach is “nice for kids to get a break from me and the other teachers.” CT3 said that the community, looped teachers “would let the fifth graders work with the third graders.”
After participants responded to the first question, the interviewer asked self-contained teachers the following question. “How has being a self-contained teacher, rather than being a community classroom teacher, affected you?” One of the five self-contained teachers cited relationships as a main reason on how it has affected them and the students. SCT1 expressed that “self-contained allows for you to start to develop good relationships.” One of the five self-contained teachers referenced opportunities to learn standards and integrate curriculum as a positive aspect of self-contained teaching. SCT2 believed, “Self-contained benefits new teachers because you learn all the subject matter and the standards required for the grade.” Another self-contained teacher, SCT3, shared s/he liked the flexibility that the self-contained classroom provided. SCT3 stated “one week I may hit math and do a really good job at it. Then, the next week I may spend more time on another subject.” The remaining two self-contained teachers, SCT4 and SCT5, expressed difficulties in teaching multiple subjects. They said it was “overwhelming” and a lot of time was spent “reviewing content from previous years.”

The interviewer asked a similar second question to the community, looped teachers. “How has being a community teacher, rather than being a self-contained teacher, affected you?” Five of the six community, looped teachers shared that they were overwhelmed with teaching multiple grade levels. CT1 said “it was like being a first year teacher again.” CT3 shared, “I felt like I was drowning.” Continuing in the same tone, CT4 said that learning the Common Core State Standards at the same time “just about killed” her. CT5 expressed that she “could get confused from one grade to the next grade level.” To round out the overwhelming thoughts, CT6 mentioned “it was very difficult to teach three different grades in three different classes.”

On the other hand, some of these same participants responded with favorable reasons to teach in a community, looped classroom. Two of the six teachers liked the opportunity to learn
curriculum vertically. CT4 stated, “For three grades, I could see how third to fifth vertically aligned.” CT5 outlined the benefits of community, looped teaching by pointing out that “you could see where the students had been and where they were going.”

In addition, three of the six teachers cited relationships as a factor that affected them. CT2 believed the community, looped classroom offered “an opportunity to develop stronger relationships and…to build trust.” CT5 echoed the same sentiment by saying, “There were some great relationships.” CT6 added the relationships between colleagues affected them. CT6 said, “But, the advantage in that is I got to teach with some great teachers that helped mentor me and guide me.”

The researcher asked each participant a third question. This question focused on differences in student results in community compared to the traditional self-contained classroom. The researcher asked, “Did you observe any different results from students who were enrolled in a community classroom compared to students who were enrolled in a traditional self-contained classroom?” Nine of the 11 teachers believed community classroom students had a social advantage over self-contained students. Five of the participants shared they believed the community classroom helped with transitions from one year to the next year. SCT2 acknowledged the fact that the students “already know the teachers and the teachers know the parents,” referring to multiple years in a community, looped class. SCT5 said the teachers and students knew the toleration level of each other during a second year. CT1, CT2, CT3, and CT5 all expressed a social advantage for the students because of the established relationship with the teachers. These participants cited procedures and expectations because of multiple years with same teachers as a social advantage for students as well. Two of the 11 teachers said that it was
an advantage for students to have more than one core teacher within a single year. According to SCT1, it gave students opportunities to “move and socialize on a routine basis.”

Two self-contained teachers, SCT2 and SCT3, answered the third interview question by pointing out advantages for students in a self-contained classroom. SCT2 believed students need an annual fresh start at the upper elementary grade level. SCT 3 had “concerns about third graders who had three teachers per day.”

To dig deeper on the issue, the interviewer asked participants a fourth question. “What organizational structure do you believe best meets the social and emotional needs of students and why?” Three self-contained teachers believed that the self-contained setting was the best structure for upper elementary students. SCT1 said she believes “the self-contained classroom with one main teacher offers that [stability] more than a community setting with multiple teachers…especially when the students’ lives are not stable at home, moving from one home to another.” SCT2 shared that the students are “still little.” “They are interacting in the classroom but more relaxed because not on such a schedule.” In reference to the self-contained class alternative, the community-departmentalized class, SCT3 expressed her “worry about…students getting to know three different adults.”

In contrast, one self-contained and four community, looped teachers believed that a departmentalized setting was the best structure at the third through fifth grade level. SCT4 viewed departmentalization as the best structure for social needs “because kids can interact with several students.” CT1 shared that she thinks “departmentalizing with three groups at the same grade level is the best option.” In agreement with CT1, CT6 shared, “So, I would think departmentalizing for one year at a time. You get a fresh start, a new classroom, and a new set of kids. I think that is an advantage.” CT5 said, “They have to learn to socialize with more
children which puts them in more a life experience.” CT4 gave an example of two students who were enrolled in her community class. One student was dependent on the other student who was more independent. While the two students were not in the same class, the students were in the same community. According to CT4, “the structure gave her [the dependent student] a safe zone without being self-contained.”

Two of the remaining three participants did not express a preferred structure. Instead, they shared their belief that the community setting was not the best structure. One teacher said that she does not see a difference between the two structures: self-contained or departmentalized settings. SCT5 expressed her concerns for the community setting as a good social structure. “Keeping the same homeroom for three years may hinder those social opportunities. Schedules that expose them to different kids might be better.” CT2 noticed that the community students “had a smaller peer group as they transitioned to middle school.”

One of the participants, CT3, did not believe there was a social advantage to a self-contained or community, looped classroom. CT3 stated, “I don't see a difference between a departmentalized and self-contained group.”

After considering elementary structures that have social advantages for third through fifth grade students, the researcher asked participants about what structure provided more of an academic advantage. The researcher asked, “What organizational structure do you believe best meets the academic needs of students and why?” Ten of the 11 respondents stated that some form of departmentalization was the favored academic organizational structure for upper elementary schools. One of the respondents “didn’t see a real difference.”

Four of the five self-contained teachers believed the upper elementary students benefited more in a departmentalized setting. In reference to the curriculum, SCT2 shared that she “can
cover more in departmentalization.” SCT3 shared that preparation was the reason for the academic advantage. She said, “I was a better prepared teacher when I was departmentalized.” SCT4 shared similar thoughts by saying that preparing lessons for a self-contained class was overwhelming. Citing a different reason, SCT5 stated the community, looped class provided time for teachers “to get to know the student’s individual academic needs.”

All of the community, looped teachers stated a preference for departmentalization to academically support third through fifth grade students. Four of the six community, looped teachers (CT3, CT4, CT5, and CT6) believed that preparation and an understanding of the curriculum helped students academically. CT4 stated that “departmentalization keeps you focused. It keeps the students focused on the subject when they go from class to class.” CT5 said, “It forces you to be more on task in a departmentalized or community classroom.”

The other two community teachers believed that knowledge of the students’ progress from year to year and the environment were reasons for academic success. CT1 teacher expressed that knowledge of the students from grade level to the next grade level was beneficial. Furthermore, CT2 shared that students who experience different learning environments as they do in a departmentalized setting benefited the students academically. CT2 said, “It helps the students adapt and prepare for middle school structure.”

Before concluding each interview session, the researcher asked participants one more question. The researcher asked the self-contained teachers, “Do you believe the traditional self-contained classroom setting favors any sub-groups more than others? Please explain.” In a comparable manner, the researcher asked the community, looped teachers, “Do you believe the community classroom setting favors any sub-groups more than others? Please explain.”
The respondents shared a variety of perspectives on subgroups who had an advantage in self-contained or community, looped classroom. First of all, four of the teachers, three self-contained teachers and one community, looped teacher, said they did not see any advantage to one classroom environment compared to the other. SCT2 said, “I don’t think there is any advantage.” SCT4, SCT5, and CT6 shared similar comments. One self-contained teacher, SCT3, shared that advanced students may benefit more by being in the self-contained classroom.

Two teachers expressed their views that ESL students may have an advantage in a specific learning environment. In reference to the self-contained setting, SC1 pointed out, “The time to become familiar with fewer students and teachers may have supported a student transitioning into our country and learning the culture.” Sharing another perspective on ESL students, CT2 said, “ELL students who need more time to overcome more classroom issues may be at an advantage in a community classroom.”

During these interviews, three community, looped teachers believed students with disabilities may have an advantage in a community classroom. CT1 said, “I think for the special education kids that it may have been helpful. I think they have harder time adjusting to new classrooms and teachers. Several families expressed that they know expectations and said it was an easier transition.” CT2 said, “Students with disabilities…who need more time to overcome more classroom issues may be at an advantage in a community classroom.” CT4 believed, “The carryover from year to year helped with students who had a learning disability. It helped us be better equipped the second year. And, the students were more equipped, too.”

One teacher, CT3, said that community classrooms may be an advantage to the economically disadvantaged students. The teacher stated, “It may be with Economically Disadvantaged who don't have stability at home. It gives them some stability and structure over
the years.” Another community teacher, CT5, responded that at-risk students may have an advantage in the community classroom.

Upon completion of asking these questions and recording each participant’s responses, the interviewer expressed gratitude for the teacher’s time and perspective. The researcher assured each teacher that the recorded dialogue would be password protected and only used for purposes of this specific study. To follow up, the researcher sent notes of appreciation to each participant.
CHAPTER V
SUMMARY AND DISCUSSION

In this study, the researcher examined the effectiveness of self-contained and community classrooms by focusing on the relationship between one school’s ELA and math achievement test scores. Upper elementary school students’ Tennessee Comprehensive Assessment Program (TCAP) test scores and elementary teachers’ experiences were examined to explore the relationship between classroom environment and student achievement. This final chapter restates the research problem, reviews the methodology used within this study, summarizes the findings, and discusses the results’ implications.

Statement of the Problem

The National Assessment of Educational Progress (NAEP) indicated that Tennessee’s educational status in reading and math, among fourth grade students, remained in the bottom decile among states in 2011 (NAEP - Mathematics and Reading 2013, 2013). International educational comparisons from the 2011 Trends in International Mathematics and Science Study (TIMSS) showed United States’ fourth grade math students ranked 15th among the 57 participating countries (National Center for Education Statistics, 2011; United States Department of Education, 2012a). Singapore, Korea, Japan, Hong Kong, and Taiwan had higher national averages among math students in 2011 (National Center for Education Statistics, 2011). Even though the United States’ math scores were better than the majority of international countries,

The United States’ fourth grade students were more competitive in reading than math according to international test comparisons. This reading cohort ranked fifth out of 52 tested countries (Thompson et al., 2012). Hong Kong, Russia, Finland, and Singapore had higher scores than the United States (Thompson et al., 2012). Nevertheless, these scores in 2011 indicated American students, including Tennesseans, had room to improve ELA and math proficiency levels. With lower than average test scores and federally awarded dollars, Tennessee educators faced a big challenge to increase academic proficiency on achievement tests (U.S. Chamber of Commerce, 2007). When the state received the Race to the Top funds, Tennessee education officials raised the bar with more rigorous evaluation procedures and major shifts in instructional practices to address the CCSS (Tennessee Department of Education, 2012a, 2014c). These changes placed additional pressures on teachers to adjust pedagogical practices in order to show increased professional improvements along with increases in student achievement (United States Department of Education, 2012b).

Tennessee’s 2013 NAEP scores revealed the state was one of the fastest improving states in the nation (Tennessee Department of Education, 2014b). The Tennessee Department of Education reported the state had a composite NAEP growth scale score of 21.80 across the four tests: fourth grade reading, fourth grade math, eighth grade reading, and eighth grade math. Tennessee Governor, Bill Haslam, attributed the students’ growth in test scores to the hard work of the teachers in implementing the Common Core State Standards into the classroom (Tennessee Department of Education, 2013f). "The state improved in overall national ranking in
each of the four tests. For fourth-grade students, Tennessee went from 46th in the nation in math to 37th and from 41st to 31st in reading” (Tennessee Department of Education, 2013f, p. 1).

During the transition years to fully implement the CCSS in 2013-2014, one elementary school in Southeast Tennessee anticipated the need to adjust schedules and methods to indicate academic growth among its third, fourth, and fifth grade students. From 2010 to 2012, the elementary school’s academic achievement results on the Tennessee Comprehensive Achievement Program test indicated above average ELA and math achievement scores among schools in Tennessee (Tennessee Deparment of Education, 2012). However, an analysis of the grade level cohorts’ year-to-year growth scores showed students were not keeping up with the state’s growth during the same period of time (Tennessee Deparment of Education, 2012). This elementary school began to notice a subpar performance compared to its previous years with negative growth scores in 2011 and 2012 (Tennessee Deparment of Education, 2012). While their academic achievement scores continued to be higher than the state’s average, the school’s value-added scores, which indicate student progress within a grade level and subject, showed students were not performing as well as they did in previous years (Tennessee Deparment of Education, 2012). This elementary school’s scores indicated the state was improving at a faster rate than the cohorts within the school. Therefore, the school administrators looked for methods or schedule adjustments to positively impact the achievement score status while addressing the instructional shifts brought on by the changes in state standards.

**Review of the Methodology**

This research was a mixed-method, causal-comparative study about one elementary school in southeast Tennessee during the 2012-2013 and 2013-2014 school years. The
population of third, fourth, and fifth grade students was enrolled in either a traditional, self-contained classroom each year or in a community, vertically looped classroom. The self-contained students had one, different core teacher for all subjects each year. The community, vertically looped students had the same content specialist instructors for both years. The quantitative study focused on students’ reading and math achievement scores obtained from two years of TCAP data. The qualitative study reviewed teachers’ experiences and insights into the two learning environments.

In this case study, the researcher examined a control group of self-contained classroom students’ achievement scores in relationship to a comparison group of community, vertically looped classroom students’ achievement scores. He ran independent samples t-tests and ANOVA tests to examine both classroom environment’s effectiveness on reading and math achievement scores. The researcher ran tests to analyze performances between sub-groups such as gender, ethnicity, economic status, special education status, and English proficiency.

In addition to the quantitative component of the study, the researcher conducted 11 interviews with teachers who taught at the southeast Tennessee elementary school during the 2012-2013 and 2013-2014 school years. Five of the 11 teachers taught in self-contained classrooms while the other six teachers taught in community, vertically-looped classrooms during this case study’s time period. Interview questions were correlated to the theoretical underpinnings and sub-groups studied within the quantitative section. The educators’ answers to the questions provided insight into the attitudes and comfort levels related to the two learning environments.
Summary of the Results

The purpose of the study was to compare two scheduling practices to determine if there was a significant difference in ELA and/or math achievement among fourth and fifth grade students. One southeast Tennessee elementary school administrator and staff implemented two scheduling practices to improve student achievement during the 2012-2013 and 2013-2014 school year. These educators wanted to find a scheduling approach that would create superior achievement compared to other state schools. This case study primarily sought to answer the following questions related to student achievement from those two years of instruction within the school.

Quantitative Results

First, the researcher examined whether or not elementary English language arts students who completed third and fourth grade in traditional, self-contained classrooms performed at a statistically different achievement level than students in a two-year departmentalized, looping setting. The independent samples t-test revealed that there was no significant difference in fourth grade, second year ELA TCAP scores for the self-contained and community, looped classrooms. There was no significant difference in male scores in self-contained and community, looped classrooms. There was no significant difference in female scores in self-contained and community, looped classrooms. Furthermore, independent samples t-tests indicated no significant differences in the two class settings for the economically disadvantaged students, non-economically disadvantaged students, and English proficient students. There were insufficient numbers of special education students and non-English proficient students to conduct any meaningful analysis. However, a one-way ANOVA indicated that there was a significant
difference between African American and Caucasian mean test scores for the students enrolled in self-contained classes. Caucasian mean score was 66.29 while the African American mean score was 27.67. For the scores of students enrolled in the community, looped classes, a one-way ANOVA indicated that there was no significant difference between the various ethnic groups.

Next, the researcher examined whether or not elementary math students who completed third and fourth grade in traditional, self-contained classrooms performed at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting. The results of the independent samples t-test indicated there was no significant difference in fourth grade, second year Math TCAP scores for the self-contained and community, looped classrooms. There was no significant difference in male scores in self-contained and community, looped classrooms. There was no significant difference in female scores in self-contained and community, looped classrooms. Additionally, independent samples t-tests indicated no significant differences in the two class settings for the economically disadvantaged students, non-economically disadvantaged students, and English proficient students. There were insufficient numbers of special education students and non-English proficient students to conduct any meaningful analysis. However, a one-way ANOVA test indicated that there was a significant difference between African American and Caucasian students in the self-contained classroom setting. Caucasian mean score was 62.58 while the African American mean score was 12.00. For the scores of students enrolled in the community, looped classes, a one-way ANOVA indicated that there was no significant difference between the various ethnic groups.

For the third question, the researcher examined whether or not elementary English language arts students who completed fourth and fifth grade in traditional, self-contained classrooms performed at a statistically different achievement level than students in a two-year
departmentalized, looping setting. The results of the independent samples t-test indicated there was no significant difference in fifth grade, second year ELA TCAP scores for the self-contained and community, looped classrooms. There was no significant difference in male scores in self-contained and community, looped classrooms. There was no significant difference in female scores in self-contained and community, looped classrooms. Moreover, independent samples t-tests indicated no significant differences in the two class settings for the economically disadvantaged students, non-economically disadvantaged students, and English proficient students. There were insufficient numbers of special education students and non-English proficient students to conduct any meaningful analysis. However, a one-way ANOVA test indicated that there was a significant difference between African American and Caucasian students in the community, looped setting. Caucasian mean score was 60.81 while the African American mean score was 26.43. For the scores of students enrolled in self-contained classes, a one-way ANOVA indicated that there was no significant difference between the various ethnic groups.

Finally, the researcher examined whether or not elementary math students who completed fourth and fifth grade in traditional, self-contained classrooms performed at a statistically different achievement level than students in a two-year departmentalized, looping (community) setting. The results of the independent samples t-test indicated there was no significant difference in fifth grade, second year Math TCAP scores for the self-contained and community, looped classrooms. There was no significant difference in male scores in self-contained and community, looped classrooms. There was no significant difference in female scores in self-contained and community, looped classrooms. In addition, independent samples t-tests indicated no significant differences in the two class settings for the economically disadvantaged students,
non-economically disadvantaged students, and English proficient students. There were insufficient numbers of special education students and non-English proficient students to conduct any meaningful analysis. A one-way ANOVA test indicated that there was no significant difference between the various ethnic groups in self-contained class setting. Furthermore, a one-way ANOVA test showed no significant difference between ethnic groups in the community, looped class setting.

Qualitative Results

In addition to the quantitative results, the researcher included a qualitative component to describe educators’ anecdotal perspectives, anxieties, and general viewpoints about community and self-contained classrooms. Each of the 11 teachers responded to a series of questions within a 30-minute time period.

The first question focused on the teachers’ general thoughts and feelings about self-contained classes compared to departmentalized classes. Ten teachers preferred departmentalization rather than a self-contained setting. These teachers preferred teaching fewer standards and focusing specific content. One teacher preferred the self-contained setting for upper elementary students because she preferred the time to get to know each student’s learning deficiencies and strengths. She said it provided opportunities for extended enrichment and intervention, as needed.

The teachers’ answers to the second interview question revealed how the classroom setting affected them during their two years of instruction in 2012-2013 and 2013-2014. First, self-contained class teachers listed relationships, chances to integrate curriculum, and flexibility in teaching multiple subjects as the positive aspects. In contrast, some of the self-contained
teachers pointed out that teaching and preparing to teach multiple subjects was a negative experience. For the community, looped teachers, they expressed that teaching multiple grade levels was overwhelming. However, the community, looped teachers shared that teaching multiple grades helped them understand the vertical alignment of the standards they taught. These teachers also liked the opportunity to develop relationships with the students over multiple years.

The third question in the interview session focused on student results as observed by the teacher. A majority of teachers shared that the community, looped class environment provided social advantages for the students. Two of the teachers believed students who had the opportunity for a new start each year benefited more than those students who had the same teachers for multiple years.

The fourth question focused on what upper elementary schedule best met the social and emotional needs of students. Self-contained teachers referenced stability and a relaxed, flexible environment supported the social and emotional needs of the third, fourth, and fifth graders that they taught. The majority of the community, looped teachers believed students to grow socially and emotionally by attending multiple class settings each day. One community, looped teacher did not believe there was a social advantage to a self-contained or community, looped classroom.

A fifth question shifted the focus from social to academic. Ten of the 11 teachers favored some form of departmentalization for the academic needs of upper elementary students. They believed that teachers were better prepared to deliver the content in a departmentalized classroom. Two of the community, looped classroom teachers believed that the combination of departmentalization and looping supported the student academically because the teachers knew their content and students better.
A final interview question sought to see if teachers believed a specific class setting favored any student sub-group. Four of the teachers did not believe either type of class setting favored a specific sub-group of students. Two teachers expressed that the self-contained class setting may benefit the non-English proficient students. They stated the stability of fewer teachers and students may serve as a better way to acclimate to the educational environment. In contrast, three community, looped teachers believed students with disabilities may benefit from a community, looped setting. These teachers stated that they were equipped with knowledge of the students’ academic and behavior needs from the initial year, and that information assisted them to serve these students better during subsequent years.

**Discussion of the Results**

The purpose of the study was to compare two scheduling practices implemented at one southeast Tennessee elementary school to determine if there was a significant difference in ELA and/or math achievement among fourth and fifth grade students during a two-year period. The researcher utilized two years of Tennessee Comprehensive Assessment Program (TCAP) data and teacher responses to consider the effectiveness of two scheduling practices: self-contained and departmentalized, looping (community) classrooms. Even though one case study, such as this, may not provide a comprehensive foundation to support a specific scheduling practice, the results may assist other educators who are considering scheduling alternatives at the upper elementary school level.

The upper elementary students’ TCAP scores were examined to analyze the achievement of students in both self-contained and departmentalized, looped (community) classrooms. The quantitative analysis of scores began with a comparison of self-contained scores with
departmentalized, looping (community) scores. Generally, half of the student body attended classes in traditional, self-contained classrooms for two years at the one elementary school. The other half of the student body attended classes in a departmentalized, looped (community) classroom. The researcher compared these two groups of student scores by gender, socioeconomic status, ethnicity, special education, and English proficiency as well. Before running the scores for these sub-groups, the researcher calculated the results of student scores as a whole. Test results showed no significant difference in reading scores or math scores among students who completed two years in a departmentalized, looped (community) setting compared with students who completed two years in a traditional, self-contained setting.

However, one-way ANOVA tests indicated significant differences in scores between African American and Caucasian self-contained students in fourth grade ELA and math. Fifth grade community ELA results indicated a significant gap between African American and Caucasian scores, too. These scores mirror similar findings at the national level. As previously noted in the study, 2013 NAEP math scores indicated an achievement gap that is still 25 points between African American and Caucasian students and slightly less than 20 points between Hispanic and Caucasian students (Kena et al., 2014; NAEP - Mathematics and Reading 2013, 2013). The 2013 NAEP reading scores highlighted a 23-point gap between the African American and Caucasian students (Kena et al., 2014; NAEP - Mathematics and Reading 2013, 2013). Reflecting on ethnicity performances, it is noteworthy to recognize that no interviewed teacher believed either classroom environment favored a specific ethnic group.

Independent samples t-tests indicated no significant difference in scores of male students enrolled in self-contained classrooms for two years compared to the scores of male students enrolled in two years of a departmentalized, looped (community) classroom. For female
students, the results were similar – no significant difference between self-contained and
departmentalized, looped (community) classrooms. These results reflect an aforementioned
study conducted in Croatia. In 844 Croatian elementary schools, “The interaction effects of
teachers’ and pupils’ gender on school achievement are generally insignificant” (Burusic et al.,
2012, p. 523). However, in a national study, Scheiber, Reynolds, Hajovsky, and Kaufman
(2015) concluded females had a slight advantage in reading. In similar fashion, females in this
study had ELA TCAP mean scores that were higher than the males’ ELA TCAP mean scores.

A closer look at the TCAP results by gender indicated students in the departmentalized,
looped (community) classroom followed the same trend as the latest NAEP scores. However,
the math scores of the self-contained students contradicted the NAEP scores. In 2013, the NAEP
results indicated males’ average scale score in math was 242 while the females’ average scale
score in math was 241 (NAEP - Mathematics and Reading 2013, 2013). The fifth grade
females’ mean math scores \( M = 59.20 \) from this study had a numerical superiority over the fifth
grade males’ mean math scores \( M = 44.20 \). Likewise, the fourth grade females’ mean math
scores \( M = 59.42 \) had a numerical superiority over the fourth grade males’ mean math scores
\( M = 54.84 \).

The students with disabilities and economic disadvantaged sub-groups had limited data in
this study. Even though the southeast Tennessee elementary school reported 16% of its
population as students with disabilities, a majority of this special population attended class in the
extended resource setting. Therefore, these students did not attend class on a regular basis in a
traditional, self-contained or a departmentalized, looped class. Additionally, the reported
percentage for the economically disadvantaged population of 40% exceeded the percentage of
students who actually had two years of scores. Only 16% of the economically disadvantaged students attended both years at this school of record.

While there was limited quantitative data regarding students with disabilities, three of the community classroom teachers shared they believed students with disabilities might have an advantage in a community classroom. The consistent expectations supported a seamless adjustment to a new school year. Two of these three teachers commented that the multi-year familiarity with the special students’ learning disabilities assisted the teacher, too. These teachers could be better equipped for specialized instruction. In a likeminded perspective, Lee and Smith (1993) stated that struggling students profited from a more concentrated community-like classroom with one teacher. Mercer et al. (2011) reported this form of support influences the lower achieving students to build positive perceptions and strengthen self-concept and self-efficacy.

For the economically disadvantaged students, the independent samples t-tests indicated there was no advantage to enrollment in either the self-contained or departmentalized, looped (community) classroom. The quantitative data indicated similar results for the non-economically disadvantaged students. Teacher interviews provided limited responses related to the economically disadvantaged sub-group. However, one community classroom teacher shared her belief that the departmentalized, looped (community) class may provide more long-term stability for the student. This may be true, but with only 20 of the 141 students attending the same school for multiple years, this may pose a challenge for longevity and successful achievement results.

Regarding the English Language Learners (ELL) or non-English proficient students, two teachers shared divided perspectives on the favored classroom environment. A self-contained teacher posited that a traditional, single self-contained classroom might support an
ELL student as s/he transitions into a new country and culture. On the other hand, one community teacher believed the departmentalized, looped classroom allowed the ELL student more time to conquer the normal, everyday classroom issues. Few non-English proficient students in this study limited the quantitative data to compare ELL student performances in the traditional, self-contained and departmentalized, looped (community) classroom.

**Conclusions and Implications**

The independent samples $t$-tests indicated that there was no significant difference in reading achievement test scores for students in a traditional, self-contained and a departmentalized, looped (community) classroom. Furthermore, the independent samples $t$-tests indicated that there was no significant difference in math achievement test scores for students in a traditional, self-contained and a departmentalized, looped (community) classroom. However, ANOVA tests revealed a significant difference in African American and Caucasian student scores in ELA and math. This data, along with teachers’ anecdotal comments, contributed and led to the following conclusions and response to the overall question – Community versus traditional classrooms: Is there a case for improved academic performance in elementary schools?

Thus, the basis to this overall question’s answer lies with the teachers’ knowledge of the curriculum standards, content, and delivery of the content. During the initial stages of introducing and implementing Common Core State Standards, administrators sought scheduling alternatives to support elementary teachers in teaching more in-depth content in ELA and math. Administrators reviewed scheduling options including departmentalization, self-contained, looping, and a combination of any of the aforementioned organization structures (Farbman et al.,
In so doing, principals focused on appointing content specialist teachers in ELA and math (Gerretson et al., 2008). Therefore, teachers turned to getting familiar with the new curriculum. As a reminder from previous context, Alexander (2010) shared that teachers “cannot help pupils to build up their understanding and insight within a particular domain of the curriculum without having a good grasp of what the domain is about” (p. 107).

The focus to equip teachers with alternative scheduling options to support the delivery of the more in-depth elementary content became an innate survival approach to instruction. Interviewed teachers placed the main issue around elementary schedules and student success on their need to learn new content. While teachers shared the desire to develop strong relationships with students, their primary responses concentrated on the acquisition of content knowledge. Teachers who answered the first interview question shared that they preferred departmentalization because they felt better prepared with the lesson and could better zone in on the content. One teacher stated, “I can hone my attention onto fewer standards” (Carson, 2016). In response to a second interview question, participating teachers indicated it was overwhelming to learn content from multiple subjects. Another teacher said that learning three grade levels of a content to teach in a departmentalized, looped (community) setting “just about killed” her (Davis, 2016). Another said, “I felt like I was drowning” (Martin, 2016). Teacher comments like these and the administrators’ actions to adjust schedules because of content standard changes affirmed the importance of content delivery. Fast et al. (2010) said when students perceive their class as mastery-oriented, they exude higher academic efficacy. Franz et al. (2010) emphasized the importance of teacher support and leadership in student learning.

While teacher content knowledge is an essential component of effective teaching, elementary educators seek a balance between learning the content and developing strong student
relationships. Burleson and Thoron (2014) shared that when students are safe and fulfill the need to be socially accepted, their motivation to meet the esteem needs and achieve a task becomes more evident. Student motivation begins with the teacher. The teacher’s relationship with students lead to the students’ motivation in return leading to a stronger self-esteem and higher academic efficacy. Özdemir and Pape (2013) said that the student’s efficacy fluctuates based on the perception formulated through the interaction with other classmates and teachers. In essence the learner’s efficacy begins with the teacher’s efficacy. Therefore, when teachers face new curriculum standards or content, they face a barrier to their own learning. This barrier can lead to a lower efficacious instructor, hindering the student’s academic efficacy and academic growth.

After taking all this information into consideration, the advantage for improved academic performance in elementary schools begins with the teacher’s self-efficacy. When standards and content change, school administrators should find ways to provide ample time for teachers to learn new curriculum. Vygotsky’s insight and the zone of proximal development should provide some guidance toward formulating an effective elementary schedule. In an era where elementary teachers face core content adjustments, upper elementary schools may want to begin with a grade-level departmentalized approach. This would allow the teacher to grow in confidence around the content. In return, this confidence would transcend to the classroom and students. By providing controls on the amount of content a teacher is learning, the teacher could provide the student with clearer tasks. Informed group discussions and multi-text comparisons set the upper threshold of the learning environment (Alexander, 2010; Bitter, 2009; Institute for Learning, 2013; Michaels et al., 2008; Resnick et al., 2013).

As time progresses and teachers grasp a grade level content, it may be effective for the elementary school to expand its single, grade level departmentalized schedule to a
departmentalized, looped schedule during a second year of a consistent set of standards and curriculum. The departmentalized, looped (community) classroom could allow opportunities for informed group discussions and provide opportunities for teachers to be familiar with each student’s threshold of learning. This scheduling approach could expedite the student’s learning of the basic classroom procedures, and it would create opportunities for students to gain momentum in learning the academic tasks. A second year with the same teachers could provide common cultural experiences for the students, and this could lead to opportunities for students to focus their thinking on new content more efficiently.

Recommendations for Further Research

Further research may provide more insight to the academic advantages various elementary education schedules have on academic performance. For instance, a longitudinal study with a cohort of students who complete core academic studies in a specific learning environment for three or more years could provide additional guidance. A longitudinal study may be effective as long as state curriculum standards and programs remain consistent during the research period.

An additional research study could involve multiple schools instead of one school. A school district or several similar schools may implement looping, departmentalized, departmentalized-looped (community), and self-contained environments at the upper elementary school year. Students and teachers who follow similar schedules with consistent curriculum standards may offer quantifiable test data to analyze. A larger population of students will offer the opportunity for a more in-depth analysis of subgroup performances.
Furthermore, studies focused on absentee rates of students involved in self-contained classrooms compared to multi-year, looped classrooms may provide evidence to offset poor attendance. The attendance rate compared with test results could support a case for a specific learning environment or may support the simple fact to attend class, in general.

Further research around elementary teachers’ comprehensive knowledge of content may support the case for a departmentalized schedule. Using the Tennessee Evaluation Acceleration Model (TEAM) system, a researcher can access each instructor’s observation data on content knowledge. These data points could be gathered and correlated with students’ test scores. A correlation of students’ TCAP results and teachers’ evaluation results could demonstrate a favorable correlation for a specific type of elementary structure.

In order to consider the effects of elementary schedules on middle school academic performance, a researcher may choose to identify each student’s elementary schedule and run quantitative data using elementary test scores and middle school test scores. The researcher could compare results of a cohort enrolled in elementary self-contained, looped or departmentalized classes with the test results of the same cohort’s middle school. A qualitative analysis of middle school students’ responses in reflection on elementary and middle school success in relation to schedules would supply further data for consideration in effectively scheduling elementary students.

Further research specific to subgroups could support academic planning in the future. Expanding the study to multiple schools with high concentrations of a specific subgroup may allow researchers to examine effective teaching models at the upper elementary level. Subgroups may include ELL, socioeconomic, ethnic, or disabled students.
While these further research considerations are not comprehensive, they provide options for the researcher to continue the investigation into favorable learning environments for the elementary students. If content remains the same and teachers instruct for a longer tenure, the recommended studies may provide results to improve learning. However, the key to any of these studies begins with a reliable content and instruction.
REFERENCES


Baker, E. S. (1919). The Contribution of the Teacher to the Development of Democracy. The Kindergarten and First Grade, IV(9).


Individuals with Disabilities Education Act (IDEA), 34 CFR § 300.34 (2004).


138


Miller, G. (1956). The Magical Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information. Psychological Review, 63, 83-97.


Rogers, A. L. (1919). The Scope and Significance of Measurement in Early Elementary Education. *The Kindergarten and First Grade, IV*(8).


Selden, T. (Writer). (2008). Some basic information that every Montesorri parent should know


143


APPENDIX A

IDENTIFICATION AND ANALYSIS OF VARIABLES
<table>
<thead>
<tr>
<th><strong>Variable Label</strong></th>
<th><strong>Variable Levels</strong></th>
<th><strong>Scale of Measurement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable(s)</strong></td>
<td>Academic Achievement</td>
<td>TCAP Mean Scores (Math and Reading)</td>
</tr>
<tr>
<td><strong>Independent Variable(s)</strong></td>
<td>Classroom Environment</td>
<td>1 = Self-Contained 2 = Community, looped Looping</td>
</tr>
<tr>
<td>Gender</td>
<td>1 = Female 2 = Male</td>
<td>Nominal</td>
</tr>
<tr>
<td>Socioeconomic</td>
<td>1 = Economically Disadvantaged 2 = Non-Economically Disadvantaged</td>
<td>Nominal</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>1 = African American 2 = Asian 3 = Caucasian 4 = Hispanic 5 = Native American 6 = Other</td>
<td>Nominal</td>
</tr>
<tr>
<td>Students with Disabilities</td>
<td>1 = Yes 2 = No</td>
<td>Nominal</td>
</tr>
<tr>
<td>English Proficiency</td>
<td>1 = English Language Learners 2 = Non-English Language Learners</td>
<td>Nominal</td>
</tr>
</tbody>
</table>
APPENDIX B

A TWO-YEAR CAUSAL-COMPARATIVE STUDY
<table>
<thead>
<tr>
<th>Year</th>
<th>Self-Contained Classroom (One teacher teaches ELA and math to a new group of students per year)</th>
<th>Test Scores</th>
<th>Community Classroom (An ELA and math specialist teaches the same students for multiple years)</th>
<th>Test Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Third Grade</td>
<td>TCAP math</td>
<td>Third Grade</td>
<td>TCAP math</td>
</tr>
<tr>
<td></td>
<td>2012-2013</td>
<td>TCAP ELA</td>
<td>2012-2013</td>
<td>TCAP ELA</td>
</tr>
<tr>
<td>2</td>
<td>Fourth Grade</td>
<td>TCAP math</td>
<td>Fourth Grade</td>
<td>TCAP math</td>
</tr>
<tr>
<td></td>
<td>2013-2014</td>
<td>TCAP ELA</td>
<td>2013-2014</td>
<td>TCAP ELA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Fourth Grade</td>
<td>TCAP math</td>
<td>Fourth Grade</td>
<td>TCAP math</td>
</tr>
<tr>
<td></td>
<td>2012-2013</td>
<td>TCAP ELA</td>
<td>2012-2013</td>
<td>TCAP ELA</td>
</tr>
<tr>
<td>2</td>
<td>Fifth Grade</td>
<td>TCAP math</td>
<td>Fifth Grade</td>
<td>TCAP math</td>
</tr>
<tr>
<td></td>
<td>2013-2014</td>
<td>TCAP ELA</td>
<td>2013-2014</td>
<td>TCAP ELA</td>
</tr>
</tbody>
</table>
Community Teacher Questions

1. What are your thoughts on departmentalization compared to self-contained classrooms at the upper elementary level?
2. How has being a community teacher, rather than being a self-contained teacher, affected you?
3. Did you observe any different results from students who were enrolled in a community classroom compared to students who were enrolled in a traditional self-contained classroom?
4. What organizational structure do you believe best meets the social and emotional needs of students and why?
5. What organizational structure do you believe best meets the academic needs of students and why?
6. Do you believe the community classroom setting favors any sub-groups more than others? Please explain.

Self-Contained Teacher Questions

1. What are your thoughts on departmentalization compared to self-contained classrooms at the upper elementary level?
2. How has being a self-contained teacher, rather than being a community classroom teacher, affected you?
3. Did you observe any different results from students who were enrolled in a community classroom compared to students who were enrolled in a traditional self-contained classroom?
4. What organizational structure do you believe best meets the social and emotional needs of students and why?

5. What organizational structure do you believe best meets the academic needs of students and why?

6. Do you believe the traditional self-contained classroom setting favors any sub-groups more than others? Please explain.
The researcher asked the following questions to teachers who taught in a self-contained or community classroom during two years at the Southeast Tennessee elementary school. The teachers who were interviewed taught third, fourth, and/or fifth grade during the period of this study. The self-contained teachers’ responses were coded with SCT for self-contained teacher followed by the number of the respondent. For the community teacher who taught multiple grades of students, the code of CT and the number of respondent was used.

1. What are your thoughts on departmentalization compared to self-contained classrooms at the upper elementary level?

SCT1 “Departmentalization is helpful. Two subjects you can zone in on a specific one.”

SCT2 “Departmentalization lets you focus more on subject matter. Sometimes you cover it more intensely and are really able to focus on it. Whereas, if you are self-contained you are spread thin sometime. However, if self-contained you can have your subject matter flow into other subjects a lot easier. Social studies and science with the reading. Reading is in everything. You can incorporate a lot of reading skills into other subjects - reading and writing. So, I can kind of see the pros and cons. Sometimes, I want to be self-contained again because I feel it gives third graders the chance to be third graders. We are not necessarily pushing them constantly. For those kids who struggle, you can focus with them a little bit more. And, then you can extend the learning for those who need enrichment.”

SCT3 “I was a self-contained teacher. I loved being departmentalized as a matter of fact. In later years, I have departmentalized more. As far as planning, I was better to prepare with fewer subjects. It didn’t get boring, but I was better prepared. I didn’t feel spread as thin. In self-contained, I felt a little spread thin when I taught third grade.”

SCT4 “I definitely prefer departmentalization because I am able to come up with better lessons. I can come up with one or two lessons opposed to three or four. Then, I also think it is nice for kids to get a break from me and the other teachers. I think the students enjoy that. I taught fourth grade, self-contained. It was my first year teaching. Hearing the community teachers talk, they seemed overwhelmed. They were responsible for all ELA for three different grade levels. Teachers said it was mentally draining to switch from different grade levels.”

SCT5 “I taught self-contained classrooms for 10 years prior to teaching at this school. Departmentalization helps me as a teacher. I can keep up with current research and spend less time planning multiple lessons. It allows me to narrow my focus on specific topics to teach.”
CT1 “I prefer departmentalized teaching a 100 times over self-contained especially since the Common Core has come into play. When we didn’t have that, it was a whole lot easier to be self-contained and now with so much material it is just nearly impossible to be self-contained at this level.”

CT2 “I like being departmentalized with a singular focus. It allows for me to be more specific. I can hone my attention onto fewer standards. With the shift in the standards over recent years, it has been important to focus on one major subject area.”

CT3 “I like departmentalization a whole lot better. Especially for fourth and fifth. I did not like the community - on paper it sounded great. And we all we were on board. Throughout the first year, we kept our head above water. We thought we can make it better. Yes, we can make it better. And, it was so hard. Even though were departmentalized, but we had to know the difference between third and fifth graders. And, we thought we would meet once a week and do project based learning. We would let the fifth graders work with the third graders. However, it did work. I believe the principal was the most disappointed. But, as far as departmentalized, I liked it better focusing on the same grade level and one subject. The same class switched classes all together. For the students, they stayed together.”

CT4 “I liked departmentalization better. It lends itself to a teacher’s strength. And, umm, also it is nice to rotate in between and it helps with classroom management. Behaviors may get on one teacher’s nerve, but it may not bother another teacher. And, or sometimes, you have a child who makes a tapping sound for an hour or so, it may be more manageable than if you heard the annoying sound all day.”

CT5 “Personally, I like it because you can teach your strengths. In self-contained setting, I felt like I could never do anything well. I like different areas. I like math. Humanities/math differences. It also forces us as departmentalized or community teacher, it forces us to collaborate as colleagues. This is a benefit. As a community, we conference together. We shared the load on everything.”

CT6 “I like departmentalizing especially at this age level. We can focus in on subject content. The only downfall as I see is sometimes we don’t have as much time with other groups as you do with homeroom. I do like departmentalizing for this age group.”

2. a. How has being a self-contained teacher, rather than being a community classroom teacher, affected you?

SCT1 “Self-contained get to know kids better, but relationships could be better. Self-contained allows for you to start to develop good relationships. But, they could be better. Multiple years would allow you to do so.”

SCT2 “Self-contained benefits new teachers because you learn all the subject matter and the standards required for the grade. I know reading standards even if I don’t teach it at this time. I can incorporate other standards even if I don’t teach it. I know I need to hit on
that. I think it would be beneficial for new teachers to start with self-contained because otherwise you don't know what that grade should look like. Then, the teacher know what the grade level student should know totally.”

SCT3 “As a self-contained classroom teacher, one week I may hit math and do a really good job at it. Then, the next week I may spend more time on another subject. And, math may just come along with me. I liked math and science a little more. So those were the two areas I focused on more as self-contained. And, I didn't enjoy teaching reading as much. I did an okay job. I didn't put as much effort into it. I kind of used materials we had. But, I wasn't able to put as much effort into it. You just don't have the time. The things I liked I was spending more time. It was interesting for me to do more cool things. But, I felt like if I liked the subject better, I would do a better job with departmentalization because of time factor and my interest. I didn't felt affected with the shifts in standards. I never had that big of a concern with the standard shifts as some teachers expressed.”

SCT4 “Being a self-contained teacher was overwhelming. I was responsible for all core academic subjects. It was very hard to transition as a new teacher. It was a lot of responsibility. Coming in departmentalized as a first year teacher would have been easier.”

SCT5 “Being a self-contained teacher and observing communities from the outside looking in, I think I would like the community because you can establish routines like vocabulary across content in multiple grades. As a self-contained teacher, I spent a lot of time reviewing content from previous years. I believe the community students can carry over work better. For a teacher to see the progress of the student over time is valuable. It is good to watch progress over the years. As a self-contained teacher, I think they (community teachers) had just as much work as I did, but they were still stretched.”

b. How has being a community teacher, rather than being a self-contained teacher, affected you?

CT1 “Well, for a while it was like being a first year teacher again. I had taught third grade for so long that I had to learn the fourth and fifth grade material and yet prepare three wide range of lessons. I did math then plus I did the switch over in math. That was a tough couple of years. I enjoyed the departmentalized, all the grade levels. I liked to have all three of those groups. It was a lot of work. I don't know if it was more than self-contained, but it was a lot of work.”

CT2 “I believe the community classroom gave me an opportunity to develop stronger relationships and have opportunities to build trust with my students.”

CT3 “In the years as a community teacher, I felt like I was drowning. I felt so unsuccessful. I was giving all I could give. I really think that the Common Core shifts, and now seeing the good in Common Core. I think the Common Core is where we need to be. But, one person cannot do three levels of third, fourth, and fifth grade levels. It was learning difference in Common Core grade levels and change the way you teach, too. The instructional shifts with accountable talk and everything else kept me from having time to
develop lessons for three different grade levels. I felt like I was having to change three times over.”

CT4 “For ELA, in language, I really liked it during the first year. I could see the progression from one year to the next. However, when we shifted to Common Core it just about killed me. For three grades, I could see how third to fifth vertically aligned. Carry over. Common core just about killed me.”

CT5 “The benefits - you could see where the students had been and where they were going. We thought it would be like being totally departmentalized at one grade level. But, you were planning for three different grade levels. Sometimes, you could get confused from one grade to the next grade level. There were some great relationships. We had an at-risk student as a third grader, but then the next year we knew the behaviors. It took a while the first year, but when we had him in fourth grade we knew the background and the triggers. He trusted and he knew we loved him. We did not have to spend a lot of time to build the trust during the second year.”

CT6 “Well, it was very difficult to teach three different grades in three different classes. But, the advantage in that is I got to teach with some great teachers that helped mentor me and guide me. A lot of times when you had a conference with a parent, you had someone there or two people to back you up. If you saw something going on in your classroom setting, you had someone to back you up on that, too. That was definitely an advantage.”

3. Did you observe any different results from students who were enrolled in a community classroom compared to students who were enrolled in a traditional self-contained classroom?

SCT1 “I think an advantage to the student is that they can work with more than one teacher. They do not only adjust to one personality. But, they can experience different teaching approaches and personalities. I think moving from class to class helps students have opportunities to move and socialize on a routine basis.”

SCT2 “I think communities - it is great! I was very much interested in it. It helps with transition from year to year for the students. They already know the teachers and the teachers know the parents. Teacher already knows where the students are at…where they end the year. When they end the third grade, you know exactly where they end and begin a new year. A disadvantage may be that students want a fresh teacher. Sometimes, teacher's teaching style doesn't mesh with student and maybe you should change. But also students relate to different teachers differently. I thought about the bonds of mentorships with fifth graders with third graders - that would be great. You also have to be careful when you put older kids with younger kids, too. You have to be careful with maturity with what they are exposed to and personalities. I asked my child, ‘What do you think? Would you want to be with the same group for three years in a row?’ My daughter said, ‘Absolutely not. I want everything to be fresh and start anew every year.’ That helped me with my decision to teach self-contained. But I can see how communities could provide security or different issues to know that is a constant with same procedures.”

157
SCT3 “I had concerns about third graders who had three teachers per day. I didn't feel like they had opportunity to settle in like the self-contained students. It took a little longer to settle in. Self-contained settled in quickly.”

SCT4 “Hearing community teachers talk, they usually sounded overwhelmed, too. Teachers would talk about how it is hard to move your mindset from one grade level to the next level.”

SCT5 “I believe the students got to know their teacher better in the community. They probably knew quicker what expectations were from year to year. They knew the toleration level of the students. And, the students knew the toleration of the teachers. Kids had to figure things out in self-contained classrooms from year to year. It was good for the communities to establish consistency in vocabulary and the way teachers taught things.”

CT1 “Well, the big result I saw was the relationships. And, building those relationships during the first year and already having those relationships in place the second year with kids and families made a big difference. It made the second year, seemed like the second year with the same kids we didn't have to go through procedures and expectations - we didn't waste time doing that at the beginning of the school year. We could just hit it and go. So, I did think that was a huge benefit. The down side of that is if you got a kid or family and the relationship isn't strong, you have two or three years with friction. That didn't happen much.”

CT2 “In the community classroom, a relationship is already established for the second year. You start school with the relationship and expectations. It helped us serve the advanced students because we did not spend as much at the beginning of the year with skill/standard analysis. We, as community teachers, knew our students.”

CT3 “Academically no. Socially yes. I got to see the influence as I transitioned as a teacher to the middle school. Last year I had about 20 kids who were in the community classroom and then I had them in sixth grade. I could sense a family atmosphere. They had each other's back. They had a closeness after the community classroom at the elementary level. Those kids were like brothers and sisters.”

CT4 “It helped because the students knew already how the room worked. For the new students, the veteran students could show the new students the procedures and expectations.”

CT5 “I could track growth over multiple years. For the first nine weeks, it takes a while to get to know student. You could tell those who were added into the year two. We spent less time on procedures with the exception of a handful. It saved time on delivery of the procedures.”

CT6 “I am not sure… I saw our community had good test scores for those years the students were in our community. I think the children enjoyed having the opportunity to see different faces and different classroom environments. We were concerned about that
especially with third grade and how they would handle that. They rose to the occasion. They did great with that. As far as my part of it, I found it very difficult to keep up with the standards with three different classes. In theory, it looked good in the beginning. It didn't quite work out that way.”

4. What organizational structure do you believe best meets the social and emotional needs of students and why?

SCT1 “A lot of students prefer stability. I believe the self-contained classroom with one main teacher offers that more than a community setting with multiple teachers. Students want to have the feeling of security. This helps out especially when the students' lives are not stable at home, moving from one home to another.”

SCT2 “From a third grade teacher perspective, I would say self-contained for third grade for socially. Their age, they are still little. They are coming from second grade. They are interacting in the classroom but more relaxed because not on such a schedule. You can extend math and reading longer for the needs of the student. I feel they can bond more with class because the schedule is more relaxed. If the student is relaxed, they can be more at ease for learning. Community could offer more relaxed setting. But, at this school, if you are only in that community you would have less interaction with students before going to middle school. If you are self-contained class, you are with another mixture of students every year. By the time you got to middle school, you knew a lot of students when you were thrown into middle school with other schools because you had a new mixture of students from year to year at the upper grade level. But, in community, you have a limited number of students you have grown to know.”

SCT3 “I believe for third grade it is self-contained that is beneficial. I would not have over two teachers for third graders. Maybe even for fifth grade, two teachers is the ideal number …working well together. I worry about three teachers on how that works with students getting to know three different adults.”

SCT4 “I think departmentalization because kids can interact with several students. If the students are self-contained, the students have fewer students for interaction. For communities, they didn't have the opportunity to meet new kids. They remained with the same group of students for multiple year.”

SCT5 “I don't think the communities is the best organizational structure to meet the students’ social needs. It is important to experience students with different background for life skills learning. You can't always be with the same people. Keeping the same homeroom for three years may hinder those social opportunities. Schedules that expose them to different kids might be better. Communities doesn't help them broaden their interaction with different kids.”

CT1 “I think there were benefits of community setting with the three grade levels, but maybe a little bit of gap between third-fifth graders. It was not the best ideal situation. I think departmentalizing with three groups at the same grade level is the best option.”
CT2 “When the community classroom was discontinued, I still taught a group of students for the full three years. I noticed some positive and negative outcomes. I knew the parents quite well and knew the students' academic status at the beginning each school year. However, the students who began in third grade in the community had a limited number of peers in their class over three years prior to middle school. These students had a smaller peer group as they transitioned to middle school. It seemed like the group had more small conflicts on a regular basis because of the student familiarity with each other.”

CT3 “I don't see a difference between a departmentalized and self-contained group.”

CT4 “Departmentalized, I think is definitely better than self-contained for social reasons. In the sense, that they are all together and it is like one big class. We had two students, one more dependent than the other, but the community could provide to separate throughout the day. It forced the dependent to be independent. This structure gave her a safe zone without being self-contained.” “Socially, some of the organizational and self-help skills that are important for middle school can be impacted. Starting these components at this age are important. The community movement provides some structure but just next door. They must learn to respect each other's space and property.”

CT5 “They have to learn to socialize with more children which puts them in more a life experience. When you are with only 22 students for all year long, there is not as many opportunities as you experience with 48 or 72 kids. Communities provided some structure with variety. It gave them a break between class. There are different personalities of students that gee and haw better with certain teacher personalities. The teachers on the community had very different personalities. If you are self-contained, you may not connect with child and teacher. In community or departmentalization, you share the different personalities; therefore, parents and children can make it through a variety of teachers.”

CT6 “I would think departmentalizing because you have both…a child's day is broken up. They traveled to different classrooms but with a similar grade level they could change different groups of students the following year. A disadvantage for communities is that the students are with the same kids for multiple years. They were tired of each other after two years - especially the girls. So, I would think departmentalizing for one year at a time. You get a fresh start, a new classroom, and a new set of kids. I think that is an advantage.”

5. What organizational structure do you believe best meets the academic needs of students and why?

SCT1 “I didn't see a real difference from my point of view. Personalities of students were similar.”

SCT2 “I am torn. As a teacher, I can cover more in departmentalization. I can focus on math or science or social studies. I don't have to know as many students to teach every day. I can focus more intently on a subject. But, I feel like self-contained. As much as that to me, that may not benefit me because of test scores. It may be in the end the test scores. I feel like I can do better at departmentalized. I feel like students when they build a rapport
with teachers, they test better with us. The students have an ownership of me the homeroom teacher.”

SCT3 “I was a better prepared teachers when I was departmentalized. I had interesting activities that I could include with standards-based lesson. Academically, I believe I was more effective than when I was on my own as a self-contained group. I felt more proud of job as a departmentalized teacher than self-contained job.”

SCT4 “Departmentalization. Self-contained can overwhelm the teacher to prepare the multiple classes. And, the community teacher was overwhelmed to plan for multiple grade levels each day. It was hard for them to get that many lessons together.”

SCT5 “I do believe the community classrooms benefit the students academically. Education is a process. It takes a while for teachers to get to know the student's individual academic needs. It takes time to student the data initially. Therefore, I believe a community setting helps for academic reasons.”

CT1 “Community setting was more beneficial academically. I knew and was more aware of what the third graders needed for fourth grade and fourth grade what they needed for fifth grade. So it was like my own vertical alignment. I made myself more aware. I had to be more aware. I think academically it was more beneficial for kids than for me just focusing on one grade that I was teaching.”

CT2 “Students benefit from more than one classroom teacher. They need different environments with different teachers. It helps the students adapt and prepare for middle school structure.”

CT3 “Departmentalized teachers are more favorable for academics. I believe it helps the student. I felt like I was a more prepared teacher.”

CT4 “Departmentalization keeps you focused. It keeps the student focused on the subject when they go from class to class. Some of the less structured kids like the information about the schedule.”

CT5 “Departmentalization over self-contained. Teacher can teach what his/her strength is. The teacher teach what she enjoys rather than one that they don't want to spend a lot of time. Many times, you cut what you don't enjoy in a self-contained classroom. It forces you to be more on task in a departmentalized or community classroom.”

CT6 “There is just not enough hours in the day to do science and social studies justice. ELA and the standards are so broad that there is not enough time. It is a balancing act in the classroom. I don't think I could ever go back to self-contained.”

6. a. Do you believe the traditional self-contained classroom setting favors any sub-groups more than others? Please explain.
SCT1 “ESL might benefit through self-contained classroom. The time to become familiar with fewer students and teachers may have supported a student transitioning into our country and learning its culture. Otherwise, I don't see any other advantages for a specific subgroup.”

SCT2 “I don't see how it would depending on how you place them in the classes. I don't think there is any advantage.”

SCT3 “I see self-contained helping your more academically gifted students because of their background. Children who already have good academic foundation, they are going to make growth. So, for those with slow learners, it may not be as much as a benefit. I think the other subgroups may benefit more in departmentalized because of the specific subject and structured daily schedule.”

SCT4 “I really can't think of a scenario that it would. I can't think of anything.”

SCT5 “No. Not really. The things you do in self-contained classroom should be the same.”

b. Do you believe the community classroom setting favors any sub-groups more than others? Please explain.

CT1 “I think for the special education kids that it may have been helpful. I think they have harder time adjusting to new classrooms and teachers. Several families expressed that they know expectations and said it was an easier transition. As far as other subgroups, I don't think anyone with it (community classroom)...but I don't think there was any advantage for any other subgroup.”

CT2 “Students with disabilities and ELL students who need more time to overcome more classroom issues may be at an advantage in a community classroom. Advanced students may benefit in this setting, too.”

CT3 “It may be with Economically Disadvantaged who don't have stability at home. It gives them some stability and structure over the years.”

CT4 “The carryover from year to year helped with students who had a learning disability. It helped us be better equipped the second year. And, the students were more equipped, too. It was less adjustment for the student as well as the parent. We didn't have to meet so many times during the second year. So, we could focus on our instructional plans the next year more.”

CT5 “I think at-risk, but I don't think you can narrow it down to a certain subgroup.”

CT6 “I don't think there was an advantage for a subgroup.”
VITA

Jeffrey Elliott is the Director of Curriculum and Instruction for Cleveland City Schools in Cleveland, Tennessee. He received his Bachelor of Science in Education degree in 1993 from the University of Tennessee at Chattanooga. In the fall of 1994, he began his career in Cleveland by teaching sixth grade students at George R. Stuart Elementary School. During his teaching tenure, Jeffrey completed his Master’s of Education in Administration and Supervision degree in 1998 from the University of Tennessee at Chattanooga. After six years of teaching in the classroom, Jeffrey Elliott transitioned from classroom teacher to administrator. In 2000, he became the assistant principal at Cleveland Middle School as it expanded from a 7th-8th grade school to a 6th-8th grade school. Jeffrey became the principal of Cleveland Middle School in 2004 where he served for eight years. He graduated in 2010 from Lee University with an Educational Specialist degree in Classroom Teaching. Upon completing his degree at Lee, Jeffrey began pursuing his doctoral degree at the University of Tennessee at Chattanooga. In 2012, he moved from Cleveland Middle School to the district office as a supervisor of curriculum and instruction. Over the last fifteen years, Jeffrey has conducted several professional learning sessions at the local, state, and national level. Jeffrey Elliott resides in Cleveland, Tennessee with his wife, Emily, and his daughter, Carol Lynn.