

Effect of a Career, Academic, Personal and Social Growth High School Transition
Program Option on 9th-Grade Students' Achievement, Behavior, and Engagement

By

Tiffanie A. Gauchat

A Dissertation

Presented to the Faculty of
The Graduate College of the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Education

Major: Educational Administration

Omaha, Nebraska

2010

Supervisory Committee

Dr. John W. Hill, Chair

Dr. Kay A. Keiser

Dr. Neal F. Grandgenett

Dr. Larry L. Dlugosh

Abstract

EFFECT OF A CAREER, ACADEMIC, PERSONAL AND SOCIAL GROWTH HIGH
SCHOOL TRANSITION PROGRAM OPTION ON 9TH-GRADE STUDENTS'
ACHIEVEMENT, BEHAVIOR, AND ENGAGEMENT

Tiffanie A. Gauchat

University of Nebraska

Advisor: Dr. John W. Hill

The purpose of this study was to determine the effect of a career, academic, personal, and social high school transition program option on 9th-grade students' achievement, behavior, and engagement. Students in the career, academic, personal, and social group ($n = 30$) and the comparison academic/elective course option programs group ($n = 30$) maintained average to above average achievement test scores and course grades, appropriately low levels of absence and tardy frequencies, and athletic, co-curricular, and extra-curricular school engagement participation suggesting school success during 9th-grade. Faced with social and emotional changes associated with adolescence and increased academic demands to prepare students for an ever-changing workforce, students and, in many cases, parents rely on educators to provide appropriate support to help students successfully navigate challenges as they transition from middle school to high school. While the student successes observed in this study cannot be directly attributed to participation in the transition programs it can be surmised that the programs indirectly attributed to students' success in accordance with their needs. Study results indicate that educators should sustain programs that directly and even indirectly help 9th-grade students realize academic success, demonstrate positive behaviors, and become actively engaged to increase the likelihood of continued achievement during their initial year of high school.

Overall, the results of this study suggest continued use of curricular components associated with the study school's former career, academic, personal, and social high school transition program even if this information must be infused within existing coursework or student support systems.

Acknowledgements

First, and foremost, I want to thank God. His Word continues to remind me to trust in Him and lean on Him in all my efforts to serve Him.

I would be remiss if I failed to thank the many people who provided encouragement, shared expertise, and sacrificed personal time in order to help see me through this process. My husband, Dan Gauchat, and children Gage and Tate have sacrificed a great deal to provide love, patience, and support for my efforts. My mother, Deborah Fontenot, has been an inspiration and true friend, motivating me with loving words of faith when I lacked confidence in myself. Many other family members and friends, far too many to name, were also instrumental in providing encouraging words of support, even when it was simply asking how the process was progressing.

I want to thank Dr. John W. Hill, my dissertation supervisor, whose expertise, patience, and persistent support helped me gain the confidence to stretch my thinking and learning in ways I never imagined possible. I also want to thank my dissertation committee members Dr. Kay Keiser, Dr. Neal Grandgenett, and Dr. Larry Dlugosh. Other significant University of Nebraska at Omaha faculty and staff members who have given me guidance and encouragement along the way include, Dr. Karen Hayes, Dr. Peter Smith, Dr. Jeanne Surface, and Mrs. Barbara Mraz.

I would like to thank the Ralston Public Schools administration, past and present, for their support and expressions of confidence in my ability to see this process through. Other Ralston staff members who have given me moral support and assistance through this process include Jason Buckingham, Joe Kilzer, Leslie McMahon, Dan Mussmann, Greg Shepard, and Judy Startzer to name a few. The Ralston High School staff, as a

whole, has been incredibly patient and understanding during the many hours I have been absent to see this work through.

To all of these people and countless others too numerous to mention, I extend my heartfelt gratitude.

Table Of Contents

Abstract	<i>ii</i>
Acknowledgements	<i>iv</i>
Table of Contents	<i>vi</i>
List of Tables	<i>xi</i>
Chapter	
1. Introduction	<i>1</i>
Concern for Beginning High School Students	<i>1</i>
Personal and Social Challenges	<i>2</i>
Risk Factors for Beginning High School Students	<i>3</i>
Financial Costs of Leaving School Early	<i>4</i>
School Responsibility	<i>4</i>
Purpose of the Study	<i>5</i>
Research Questions	<i>6</i>
Importance of the Study	<i>12</i>
Assumptions	<i>13</i>
Delimitations	<i>14</i>
Limitations	<i>15</i>
Definition of Terms	<i>15</i>
Contribution to Research	<i>22</i>
Contribution to Practice	<i>23</i>
Contribution to Policy	<i>23</i>
Organization of the Study	<i>23</i>

2. Review of the Literature	25
Public opinion	25
Political regulations	25
Professional research recommendations	26
Critical Academic Needs of Students	29
Learning	29
Earning	29
Living	30
Unique Physical/Emotional Changes	31
Brain research	31
Puberty	34
Contextual Practices that Support Success	37
Practices that ease enrollment anxieties	38
Practices that create a warm, welcoming atmosphere	39
Practices that personalize the environment	40
Conclusion	42
3. Methodology	43
Participants	43
Number of participants	43
Gender of participants	43
Age range of participants	43
Racial and ethnic origin of participants	44
Inclusion criteria of participants	44

Exclusion criteria of participants	44
Method of participant identification	44
Research Design	45
Description of Procedures	46
Independent Variable Descriptions	47
CAPS	47
AECO	48
Dependent Variables, Measures, and Instrumentation	49
Achievement dependent measures and instrumentation	49
Behavior dependent measures and instrumentation	49
Engagement dependent measures and instrumentation	49
Research Questions and Data Analysis	49
Data Collection Procedures	58
Performance site	58
Human Subjects Approval Category	59
4. Results	60
Purpose of Study	60
Research Question #1	62
Research Question #2	63
Research Question #3	63
Research Question #4	65
Research Question #5	67
Research Question #6	67

Research Question #7 68

Research Question #8 69

Research Question #9 70

5. Conclusions and Discussion 98

Research Question #1 Conclusion 98

Research Question #2 Conclusion 99

Research Question #3 Conclusion 101

Research Question #4 Conclusion 101

Research Question #5 Conclusion 103

Research Question #6 Conclusion 104

Research Question #7 Conclusion 105

Research Question #8 Conclusion 107

Research Question #9 Conclusion 108

Discussion 109

Implications for Practice 109

Career component of CAPS 110

Academic component of CAPS 111

Personal/Social component of CAPS 111

Implications for Policy 112

Career component after CAPS 113

Academic component after CAPS 113

Personal/Social component after CAPS 114

Implications for Further Research 115

References 117

List of Tables

Tables

- Table 1. Demographic Information of Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program 71
- Table 2. Demographic Information of Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program 72
- Table 3. EXPLORE Pretest and PLAN Posttest Reading Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program 73
- Table 4. EXPLORE Pretest and PLAN Posttest English Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program 74
- Table 5. EXPLORE Pretest and PLAN Posttest Math Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program 75

- Table 6. EXPLORE Pretest and PLAN Posttest Science Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program 76
- Table 7. EXPLORE Pretest and PLAN Posttest Reading Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program 77
- Table 8. EXPLORE Pretest and PLAN Posttest English Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program 78
- Table 9. EXPLORE Pretest and PLAN Posttest Math Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program 79
- Table 10. EXPLORE Pretest and PLAN Posttest Science Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program 80

- Table 11. Ending 8th-Grade Pretest EXPLORE Compared to Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade 81
- Table 12. Ending 8th-Grade Pretest EXPLORE Compared to Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade 82
- Table 13. Analysis Of Covariance Comparison of Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Career, Academic, Personal, and Social Growth High School Transition Program (CAPS) During 9th-Grade Compared to Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Academic/Elective Course Option Program (AECO) During 9th-Grade, Adjusted for 8th-Grade Pretreatment Differences 83
- Table 14. Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Beginning 10th-Grade Posttest PLAN Reading, English, Math, and Science Scores Observed At, Above, or Below the ACT College Readiness Benchmarks 84
- Table 15. Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Reading, English, Math, and Science Scores Observed At, Above, or Below the ACT College Readiness Benchmarks 85

- Table 16. Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Reading Scores Observed At/Above, or Below the ACT College Readiness Benchmarks 86
- Table 17. Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN English Scores Observed At/Above, or Below the ACT College Readiness Benchmarks 87
- Table 18. Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Math Scores Observed At/Above, or Below the ACT College Readiness Benchmarks 88
- Table 19. Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Science Scores Observed At/Above, or Below the ACT College Readiness Benchmarks 89

- Table 20. Second-Semester 8th-Grade Pretest and Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program 90
- Table 21. Second-Semester 8th-Grade Pretest and Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Academic/Elective Course Option (AECO) Program 91
- Table 22. Second-Semester 8th-Grade Pretest English, Math, Science, and Social Studies Course Grades Compared to Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade 92
- Table 23. Second-Semester 8th-Grade Pretest English, Math, Science, and Social Studies Course Grades Compared to Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade 93
- Table 24. Second-Semester Course Grades for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade Compared to Second-Semester Course Grades for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade 94

- Table 25. Total Year Absence and Tardy Frequencies for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade and the Academic/Elective Course Option (AECO) Program During 9th-Grade 95
- Table 26. Total Year Absence and Tardy Frequencies for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade Compared to Total Year Absence and Tardy Frequencies for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade 96
- Table 27. Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Total Athletic, Co-Curricular, and Extra-Curricular Activity Engagement 97

CHAPTER ONE

Introduction

Concern for Beginning High School Students

Entering high school, adolescents have before them both great opportunity and great risk. High school traditionally marks a period when students begin exerting increased autonomy and independence as they investigate interests and talents that will influence their future as adults (Carnegie Corporation of New York, 1995; Isakson & Jarvis, 1999; McIntosh & White, 2006; Mizelle, 2005; Newman, Lohman, Newman, Myers & Smith, 2000). However, one needs only to open a newspaper today to find an article lamenting the difficulties and all too often tragedies 9th-grade students face as they make their transitions from middle school to high school (Cushman, 2006; Donegan, 2008; McIntosh & White, 2006; National Association of Secondary School Principals [NASSP], 2005; Newman et al., 2000; Schlossberg, 2001).

Physical, social, and emotional development issues combined with the demands of a rigorous academic program designed to prepare students for an ever-changing workforce lead many students to early school failure, particularly in the absence of positive adult role-model support outside school (Bottoms, 2008; Bottoms & Tiberlake, 2007; Cushman, 2006; Dedmond, Brown, & LaFauci, 2006; Donegan, 2008; Heckman, 2008; Hertzog & Morgan, 1998; Hertzog & Morgan, 1999; Mizelle, 2005; Smith, 1997). To ensure early high school success, many schools are providing proactive guidance and structure that support students' increasing autonomy and independence (Bottoms, 2008; Dedmond et al., & LaFauci, 2006; Hertzog & Morgan, 1999; Smith, 1997). Research suggests that school leaders must play an active role in determining best practice to aide

and guide 9th-grade students' successful transition to high school (Dedmond et al., 2006; Hertzog & Morgan, 1999; Isakson & Jarvis, 1999; Newman, et al., 2000).

Personal and Social Challenges

With adolescence comes change--change in the form of puberty, increasing opportunities and responsibilities, and a developing sense of identity (Carnegie Corporation of New York, 1995; Hair, Jager & Garrett, 2002). As a result, relationships with others, especially family and friends, take on new meanings and emotionally charged relational challenges may develop (Carnegie Corporation of New York, 1995; Hair et al., 2002; Heckman, 2008). Many 9th-grade students do not have the supportive relationships they need at home to make a successful transition to high school (Carnegie Corporation of New York, 1995; Hair et al., 2002; Heckman, 2008; Isakson & Jarvis, 1999; Mizelle, 2005; Newman et al., 2000). Paradoxically, despite a commonly held belief that as children develop they crave less parental involvement, research indicates that adolescents continue to need and, actually, want support for decision-making from their parents or other significant adults in their lives (Hair, et al., 2002; Newman, et al., 2000). Adolescents also turn to peers for advice and approval often leading to peer pressure to engage in risky behaviors. However, peer approval, acceptance, and even peer pressure are healthy adolescent developmental milestone invariants and important for later development (Hair et al., 2002; Hill & Coufal, 2005; Newman et al., 2000).

Unfortunately, as students navigate adolescence, they are bombarded with negative peer, social, and media influences that increase the likelihood that they may engage in risky behaviors such as alcohol consumption, tobacco and other drug use, sexual experimentation, school delinquency, or gang membership--which may in turn

lead to unintended consequences such as chemical dependence, unwanted pregnancies, suicidal ideation, and even death (Carnegie Corporation of New York, 1995; Cotton, 1996; Hill, 1989; Schlossberg, 2001). At-risk behavior that could lead to unintended consequences for high school students remains an area of concern (Nebraska Department of Health and Human Services [NDHHS], 2007). Nearly 43% of the students in Nebraska's high schools in 2005 reported drinking alcohol in the month prior to being surveyed, 28% reported using tobacco products, and 17.5% reported using marijuana (NDHHS, 2007). National percentages were similar with 44% reporting alcohol use, 28% reporting tobacco use, and 20% reporting marijuana use (NDHHS, 2007). According to the 2003 Youth Risk Behavior Survey of Nebraska Adolescents, 43% of Nebraska high school students, 27% of 9th-graders alone, reported being sexually active, compared to 47% of high school students nationwide (Nebraska Health & Human Services System [NHHSS], 2004). In the same survey, 18% of Nebraska's high school students reported giving suicide serious consideration in the past 12 months (NHHSS, 2004). With guidance and support from parents, teachers, and other positive adult role models, adolescents may be less likely to engage in risky behaviors as they become increasingly autonomous, independent, and better decision makers.

Risk Factors for Beginning High School Students

Adolescents often lack the interpersonal and decision-making skills necessary to navigate the social influences and challenges of high school (Hair et al., 2002; Heckman, 2008). Moreover, many students experience academic failure during their 9th-grade year of high school, more than in any other grade, significantly increasing the likelihood of dropping out of school (Bottoms, 2008; Bottoms & Timberlake, 2007; Dedmond et al.,

2006; Hertzog & Morgan, 1998; NASSP, 2005; Roderick & Camburn, 1999). National statistics indicate that as many as 25% of first-year high school students fail to graduate with a regular diploma four years after entering high school (Laird, DeBell, Kienzl & Chapman, 2007; NASSP, 2005). Moreover, upwards of 9% of high school students who struggle in their first year of high school eventually drop out of school all together (Laird et al., 2007).

Financial Cost of Leaving School Early

There are substantial financial and personal costs associated with dropping out of school, both for the individual student and society at large (Carnegie Corporation of New York, 1995; Heckman, 2008; NASSP, 2005). Reports indicate that a student who drops out of high school averages a personal income of between \$13,000 and \$20,100 a year and continues to lose an average of \$10,000 each year in income after the age of 25 compared to a high school graduate (Bottoms, 2008; Carnegie Corporation of New York, 1995; Laird et al., 2007; Smith, 1997). Reports also indicate that high school dropouts unfortunately experience increases in poor health, criminal activity, and legal troubles, all of which contribute to society's overall financial burden averaging between \$3,000 and \$5,000 a year per dropout (Bottoms, 2008; Carnegie Corporation of New York, 1995; Laird et al., 2007; Smith, 1997).

School Responsibility

Research supports the notion that social development and academic achievement are linked (Blum, 2005; Bremer & Smith, 2004; Hair et al., 2002; Hill & Coufal, 2005) which makes it all the more necessary for schools to consider social skills instruction and support as an integral part of its overall transition plan for students entering high school

(Bremer & Smith, 2004; Collaborative for Academic, Social, and Emotional Learning [CASEL], 2003; Hair et al., 2002; Hill & Coufal, 2005; Schlossberg, 2001). It is simply no longer safe to assume that the family will, or alone can, provide the structure and support necessary to help an adolescent traverse the personal and social challenges typical of the initial year of high school (Blum, 2005; Carnegie Corporation of New York, 1995; Heckman, 2008; Isakson & Jarvis, 1999; Mizelle, 2005; Schlossberg, 2001). Schools, therefore, become a natural partner with a responsibility to families and society at large to help adolescents navigate the social and emotional challenges they face as a natural part of growing.

Purpose of the Study

The purpose of this study was to determine the effect of a Career, Academic, Personal, and Social (CAPS) high school transition program option on 9th-grade students' achievement, behavior, and engagement. The CAPS program was conceptualized to help students adjust to the academic and social challenges that they face as adolescents entering a new phase of their education career. Each of the identified curricular areas of the CAPS program of study (Career, Academic, Personal, and Social) had its own content, providing students with information so that they could more-and-more successfully guide their own lives.

Ninth-grade students who chose not to enroll in eight of eight possible periods of instruction were automatically assigned to the CAPS program. Ninth-grade students who enrolled in eight of eight possible periods of instruction and did not have room in their schedule to participate in the CAPS program chose to participate in a full load of

Academic and Elective area Course Options (AECO) and served as a control group for this study. CAPS and AECO options served as the independent variables in this study.

Proposed study dependent variables were student achievement, behavior, and engagement data. The study was a pretest-posttest two-group comparative survey design with randomly selected participants in both CAPS and AECO groups.

Research Questions

The following questions were addressed and answered as part of this study:

Overarching Pretest-Posttest Achievement Research Question #1. Did CAPS participants lose, maintain, or improve their 8th-grade compared to 10th-grade NRT reading, English, math, and science achievement standard scores?

Sub-Question 1a. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT reading achievement standard scores after participating in the CAPS transition program?

Sub-Question 1b. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT English achievement standard scores after participating in the CAPS transition program?

Sub-Question 1c. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT math achievement standard scores after participating in the CAPS transition program?

Sub-Question 1d. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT science achievement standard scores after participating in the CAPS transition program?

Overarching Pretest-Posttest Achievement Research Question #2. Did AECO participants lose, maintain, or improve their 8th-grade compared to 10th-grade NRT reading, English, math, and science achievement standard scores?

Sub-Question 2a. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT reading achievement standard scores after participating in AECO?

Sub-Question 2b. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT English achievement standard scores after participating in AECO?

Sub-Question 2c. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT math achievement standard scores after participating in AECO?

Sub-Question 2d. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT science achievement standard scores after participating in the CAPS transition program?

Overarching Posttest-Posttest Achievement Research Question #3. Did students who participated in CAPS and AECO programs have different or congruent ending 8th-grade compared to beginning 10th-grade PLAN NRT reading, English, math, and science standard scores?

Sub-Question 3a. Was there a significant difference between participants' PLAN NRT reading standard scores after completing CAPS and AECO school experiences?

Sub-Question 3b. Was there a significant difference between participants' PLAN NRT English standard scores after completing CAPS and AECO school experiences?

Sub-Question 3c. Was there a significant difference between participants' PLAN NRT math standard scores after completing CAPS and AECO school experiences?

Sub-Question 3d. Was there a significant difference between participants' PLAN NRT science standard scores after completing CAPS and AECO school experiences?

Overarching Posttest-Posttest Achievement Research Question #4. Did students who participated in the CAPS program have beginning 10th-grade posttest PLAN reading, English, math, and science at, above, or below benchmark score frequencies that are congruent with or different from the 10th-grade posttest PLAN reading, English, math, and science at, above, or below benchmark score frequencies for students who participated in the AECO program?

Sub-Question 4a. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT reading subtests the same for students who participated in CAPS and AECO school experiences?

Sub-Question 4b. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT English subtests the same for students who participated in CAPS and AECO school experiences?

Sub-Question 4c. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT math subtests the same for students who participated in CAPS and AECO school experiences?

Sub-Question 4d. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT science subtests the same for students who participated in CAPS and AECO school experiences?

Overarching Pretest-Posttest Achievement Research Question #5. Did CAPS participants lose, maintain, or improve their second-semester 8th-grade compared to second-semester 9th-grade core course grades?

Sub-Question 5a. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade English grades after participating in the CAPS transition program?

Sub-Question 5b. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade math grades after participating in the CAPS transition program?

Sub-Question 5c. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade science grades after participating in the CAPS transition program?

Sub-Question 5d. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade social studies grades after participating in the CAPS transition program?

Overarching Pretest-Posttest Achievement Research Question #6. Did AECO participants lose, maintain, or improve their second-semester 8th-grade compared to second-semester 9th-grade core course grades?

Sub-Question 6a. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade English grades after participating in the AECO?

Sub-Question 6b. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade math grades after participating in the AECO?

Sub-Question 6c. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade science grades after participating in the AECO?

Sub-Question 6d. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade social studies grades after participating in AECO?

Overarching Posttest-Posttest Achievement Research Question #7. Did students who participated in CAPS and AECO programs have different or congruent second-semester 9th-grade compared to second-semester 9th-grade core course grades?

Sub-Question 7a. Was there a significant difference between 9th-grade students' second-semester English course grades after completing CAPS and AECO school experiences?

Sub-Question 7b. Was there a significant difference between 9th-grade students' second-semester math course grades after completing CAPS and AECO school experiences?

Sub-Question 7c. Was there a significant difference between 9th-grade students' second-semester science course grades after completing CAPS and AECO school experiences?

Sub-Question 7d. Was there a significant difference between 9th-grade students' second-semester social studies course grades after completing CAPS and AECO school experiences?

Overarching Posttest-Posttest Achievement Research Question #8. Did those 9th-grade students who participated in the CAPS program have total year observed attendance and tardy frequencies that are congruent or different from the observed total year attendance and tardy frequencies for those students who participated in the AECO program?

Sub-Question 8a. Were the total year observed frequencies for attendance the same for 9th-grade students who participated in the CAPS and AECO school experiences?

Sub-Question 8b. Were the total year observed frequencies for tardies the same for 9th-grade students who participated in the CAPS and AECO school experiences?

Overarching Posttest-Posttest Engagement Research Question #9. Did those 9th-grade students who participated in the CAPS program have observed participation frequencies in athletic, co-curricular, and extra-curricular activities that are the same as for those 9th-grade students who participated in AECO?

Sub-Question 9a. Were lose, maintain, or improve observed participation frequencies in athletic activities the same for 9th-grade students who participated in CAPS and AECO school experiences?

Sub-Question 9b. Were lose, maintain, or improve observed participation frequencies in co-curricular activities the same for 9th-grade students who participated in CAPS and AECO school experiences?

Sub-Question 9c. Were lose, maintain, or improve observed participation frequencies in extra-curricular activities the same for 9th-grade students who participated in CAPS and AECO school experiences?

Importance of the Study

This study has the potential to contribute to research, practice, and policy. It is of particular interest to researchers, school personnel, and policy makers who are charged with the responsibility of providing interventions and programs to help incoming 9th-grade high school students as they transition successfully into their next level of education. The implementation of the CAPS program, developed by a team of the study district's middle and high school teachers, counselors, school psychologists, administrators, and district social workers was a proactive program developed to foster academic, social, and emotional success and competence during the first year of high school. By understanding the results of this study, 8th-grade students, their parents, and

school district personnel will have a valuable piece of information available to them when deciding what option, CAPS or AECO, each incoming 9th-grade student should select during the course registration process.

Assumptions

This study had several strong features. Participants were randomly selected from a constant group of students who completed both the 7th-grade and 8th-grade in the research school district. Central office administration and school board members, eager to find a solution to the growing number of students who struggle to connect with high school and subsequently experience failure during their 9th-grade year, were also supportive of the staff and resources necessary to launch and maintain the CAPS option program. Moreover, parents throughout the community were supportive of the study school's efforts to help all students succeed. As parents had the final say in which courses their students enrolled after options were presented, it was assumed that parents encouraged their students to select eight or fewer than eight classes and enroll in CAPS based on their understanding of their student's personal study habits, academic potential, and social/emotional maturity in preparation for high school.

Teachers assigned as CAPS supervisors were selected based on their previous success in working with 9th-grade students and their sincere interest in providing a proactive intervention to aid incoming 9th-grade students' opportunities for success. This team of supervisors were provided a week of initial summer planning time to work collaboratively with high school guidance counselors and administrators, utilizing input from middle school and high school teachers, school psychologists, administrators, and district social workers to develop the scope and sequence of the program's Career,

Academic, Personal and Social curriculum components. Regular collaboration meetings were conducted throughout the year with CAPS supervisors and high school counselors to ensure program fidelity and curriculum implementation consistency. Furthermore, CAPS supervisors were provided access to their students' electronic grade books to monitor progress toward academic goals and elicit feedback from content area classroom teachers regarding the same. It was assumed that 9th-grade students' experiences were consistent with regard to curriculum in core courses and that the teachers of such classes took advantage of the opportunities to communicate regularly with the CAPS supervisors regarding students' progress and needs.

Delimitations

This study was delimited to a suburban public high school serving roughly 1,100 students in grades 9 through 12 in a mid-western metropolitan community. Student participants were delimited to non-special education 9th-grade students during the 2006-2007 school year who were in attendance in the study school's single feeder middle school in 2004-2005 for 7th-grade and 2005-2006 for 8th-grade and remained in attendance at the study school during their 2007-2008 10th-grade year.

Pretest measures for this study were based on participants' spring 2006 EXPLORE NCE scores while posttest measures were based on participants' fall 2007 PLAN NCE scores. Both standardized assessment instruments were developed by ACT and used to assess students' skills in reading, English, math, and science. Each assessment also surveyed students' career and post-secondary education plans. The PLAN test went further to provide a predictive score on what students could expect to earn on the ACT test widely used for college admission.

Data on classroom achievement, behavior, and participation in the study district's middle and high schools were collected routinely and uniformly throughout each year. The results, conclusions, and discussions were confined, therefore, to only these students and not generalized to other high schools' 9th-grade students or other transition efforts.

Limitations

Several limitations deserve note. A possible contribution to outcome variance in this study may be due, in part, to the level of parent support at home during the course selection process for 9th-grade and subsequent expectations for home study habits and participation during high school. Moreover, 9th-grade students' core course grades and number of attendance and tardy entries were subject to the individual professional practice and judgment of staff members as they applied the study school's grade scale and attendance reporting procedures. The total number of students in the study were $N = 60$; therefore, the small number of participants had the potential to skew the study results and limit the generalizability of the findings. These limitations were taken into consideration when analyzing, interpreting, and discussing the results.

Definition of Terms

Academic core courses. Academic core courses are class offerings from English, math, science, and social studies departments that are required for graduation. Students entering 9th-grade must choose either honors or general studies sections of English and science. Math options include pre-algebra, algebra I, and either honors or general studies sections of geometry. All 9th-grade students take civics and behavioral science classes in the social studies department.

Academic measures. Academic measures include norm-reference test reading, English, math, and science sub-test scores from ACT's EXPLORE and PLAN assessments and reported semester grades from students' English, math, science, and social studies classes. Academic outcomes were used as dependent measures of achievement in this study.

Achievement. Achievement refers to students' academic performance as defined by norm-reference test scores and reported semester grades from student's 9th-grade core courses. Such academic measures are routinely collected data points used by the study school.

ACT. ACT, formerly known as American College Testing, is a non-profit organization that, among other services, develops education and career planning assessment tools for students and educational institutions. Two such academic achievement tools, EXPLORE and PLAN, were used as dependent measures in this study. Both assessments mirror a third assessment tool, the ACT college entrance exam used by many post-secondary institutions as an application requirement to predict college preparedness (ACT, 2008).

Academic/Elective Course Option (AECO). AECO refers to the transition option where incoming 9th-grade students elect to register for and take eight full periods of content area courses during their initial year of high school. During the registration process in 8th-grade, students have two transition options as they prepare to enter their initial year at the study high school. One option is to enroll in eight of eight possible periods of instruction from academic and/or elective course offerings. Students who made this choice are referred to as AECO participants.

Advisement. Advisement refers to a 13-minute period of the day where a teacher meets with an assigned mix of 15 to 20 students from grades 9 through 12. The advisement teacher serves as a trusted adult throughout these students' high school career. Students interact during advisement with older students theoretically serving as mentors. Daily announcements are made during advisement and any paperwork such as voting and distribution of progress reports are handled during this period. Students work with their advisement teacher each spring to review their post-secondary goals, plan appropriate high school coursework needed to reach those goals, and, ultimately, register for the following year's classes.

Athletic activities. Athletic activities refer to students' participation in Nebraska School Activities Association (NSAA) sanctioned sports teams associated with the study high school. Students' participation in such athletic activities were included as a dependent measure of engagement for purposes of this study.

Attendance. Attendance refers to the aggregate number of days students are missing from a full day of school. Teachers at the study school use the school's electronic database to record when students are missing from class, whether the absence is excused or unexcused. Absences for school-sponsored activities were not counted against students' attendance, as that is the normal practice at the study school.

Behavior. Behavior will refer to participating students' attendance and tardy totals. Such information was routinely collected by the study school and was used as a dependent measure in this study.

Benchmark score. Benchmark scores are marks established by ACT that high school staff and students can use as a means of evaluating students' progress toward

college readiness standards. Students who meet established benchmark scores on the EXPLORE or PLAN test have a 50 percent chance of earning a B grade or better in a corresponding entry-level college course by the time they graduate from high school (ACT, 2005).

Career, Academic, Personal/Social Course Option (CAPS). CAPS refers to the transition option where incoming 9th-grade students elect to register for and take fewer than eight possible periods of content area courses during their initial year of high school. During the registration process in 8th-grade, students have two transition options as they plan and register for their initial year at the study high school. One option is to enroll in fewer than eight possible periods of academic and/or elective course offerings. Students who make this choice would normally be scheduled a period of study hall, but, for purposes of this study, were assigned to the CAPS program and referred to as CAPS participants.

CAPS supervisor. A CAPS supervisor is a certified teacher selected to supervise the CAPS classroom and implement the program's curriculum. Teachers normally instruct during six of eight periods per school day. CAPS supervisors had five teaching assignments and two periods of CAPS supervisory responsibilities, which is the protocol for teachers who are assigned fewer than six periods of content area classes.

Co-curricular activities. Co-curricular activities are NSAA-sanctioned competitive opportunities in which students may chose to participate. They are an extension of academic and/or elective area courses. Examples of co-curricular activities include: debate, speech team, marching band, and DECA. Students use the skills learned from the content area coursework as part of a team that competes with other like teams,

often outside the regular school day. Students' participation in such co-curricular activities were included as a dependent measure of engagement for purposes of this study.

Content area class. Content area classes refer to assigned periods of instruction offered in any academic or elective area that awards students credit hours toward graduation at the end of each semester, provided the student earned a passing grade. The only classes that would not be considered a content area class would be those where students are not assessed over a specified curriculum in order to earn a grade and subsequent credit, such as study hall, advisement, or CAPS.

Core course. See Academic course definition above.

Credit hours. Credit hours are points awarded at the end of a semester to students who successfully complete a content area class. Credit hours accumulate toward graduation at the rate of 5 credits per semester. Students must accumulate 240 credit hours as a qualification for graduation and should plan to earn 60 credit hours each year, or successfully complete six classes each semester, in order to be on track to graduate with the minimum number of credit hours required.

Elective course. An elective course would be a class offered from business, world language, physical education, practical arts, or fine arts departments. Courses that go beyond the minimum requirements needed for graduation in academic areas are also considered elective area courses.

Engagement. Engagement refers to students' participation in athletic, co-curricular, and extra-curricular activities. Study school personnel routinely collect and maintain rosters listing participants for such organizations.

EXPLORE. The EXPLORE assessment is a norm-referenced test developed by ACT that measures 8th-grade students' aptitude on reading, English, math, and science sub-tests that comprise the exam. This test is administered late in the spring semester of students' 8th-grade year in the study district. Students' performance is reported as a percentile rank. In order to directly compare EXPLORE pretest scores with PLAN posttest scores that use a different scoring range, all scores were converted to standard scores with a set mean equal to 100 and a set standard deviation equal to 15 for statistical analyses.

Extra-curricular activities. Extra-curricular activities are opportunities that study school students have to participate in school-sponsored activities that take place outside the regular school day and are not NSAA-sanctioned. While some extra-curricular activities are competitive in nature, most are simply opportunities for students to enjoy one another's company while honing skills in a common interest area or hobby. Some examples of extra-curricular activities include: cheerleading, multicultural club, writing club, and French club. Students' participation in such extra-curricular activities were included as a dependent measure of engagement for purposes of this study.

House. A House, in many respects like a team, refers to the group of students assigned to a particular period of CAPS. Students in the House, in order to help build a sense of community and peer accountability, worked together to select a House name, and accumulated points in order to earn privileges and compete for quarterly rewards.

House points. House points, like points earned by a competitive team, were awarded to students within each CAPS House for demonstrating specific behaviors identified by the curriculum. For example, after students were instructed in ways to

utilize their day planner to help track assignments and due dates, each student who came to CAPS with his day planner filled out would be eligible to earn one point toward the House total. The points were referred to as House Points and would accumulate as a team in order for each House to earn weekly privileges and compete for an end-of-quarter reward.

Norm-Referenced Test (NRT). Norm-referenced tests compare an individual's performance to the performance of his or her peers.

Nebraska School Activities Association (NSAA). The NSAA is an organization that develops and oversees policies, standards, and uniform regulations for Nebraska's public and non-public co-curricular and athletic activities.

PLAN. The PLAN assessment is a norm-referenced test developed by ACT that measures 10th-grade students' aptitude on reading, English, math, and science sub-tests that comprise the exam. This test is administered early in the fall semester of students' 10th-grade year in the study school. Students' performance is reported as a percentile rank. In order to directly compare EXPLORE pretest scores with PLAN posttest scores that use a different scoring range, all scores were converted to standard scores with a set mean equal to 100 and a set standard deviation equal to 15 for statistical analyses.

Study hall. Study hall is defined as an assigned period set aside for students' independent work. It is not a graded course that awards credit hours toward graduation. Study hall is typically comprised of between 40 and 100 students and is supervised by a non-certified staff member in the study school's cafeteria.

Semester grade. A semester grade is defined as the official grade posted on a student's transcript at the end of either the fall or spring semester. Students are awarded

credit hours toward graduation for any semester grade above failing. Semester grades in academic courses were used as a dependent measure in this study.

Standard score. A standard score for purposes of this study is a statistically comparable derived score with a mean equal to 100 and a standard deviation equal to 15.

Tardy. Tardy refers to a student arriving late to an assigned class. Teachers at the study school record each time a student is late to class in the school's electronic database. The accumulated number of tardies participating students have recorded in the school's electronic database were used as a dependent measure in this study.

Tutor. A tutor is a high school student, generally in his or her junior or senior year, who has chosen to volunteer his or her time to help peers complete difficult homework assignments and study for upcoming quizzes or tests during a study hall period. Tutors do not earn credit hours toward graduation for their service. Tutors in CAPS classrooms, in addition to helping 9th-grade students, helped the CAPS supervisors with clerical tasks such as filing, running copies, leading small-group discussions, and tracking House Points.

Contribution to Research

A large body of research supports the notion that the 9th-grade year is a pivotal one that has a significant impact on a young person's success during and after high school. A growing body of literature exists to provide examples of a variety of proactive and reactive interventions to address the successful transition to and subsequent level of success for 9th-graders in high school. The results of this study have the potential to further inform theoretical literature on the effectiveness and value of a program that

addresses the myriad of career planning, academic, personal, and social growth topics that are so important to adolescent development and future success.

Contribution to Practice

On a large scale, the results of this study can assist researchers, practitioners, and other stakeholders in furthering the development and quality of 9th-grade transition programs. Locally, the literature review contained herein and results of this study have the potential to inform all stakeholders in the study district during decision-making processes involving course selection options for incoming 9th-grade students and the human capital and fiscal needs related to 9th-grade transition.

Contribution to Policy

This study allows policymakers at the local level to better understand whether the CAPS program warrants staffing and funding to ensure its continued implementation. If the results indicate that students participating in CAPS and AECO have academic, behavior, and engagement outcomes consistent with beginning high school student success then building administrators will be able to determine at what levels these 9th-grade student support programs should be sustained.

Organization of the Study

The literature review relevant to this study is presented in Chapter 2. Chapter 3 describes the research design, methodology, independent and dependent variables, and procedures used to gather and analyze the study data. Included in Chapter 3 is a detailed synthesis of the participants, a comprehensive list of the dependent variables, dependent measures, and the data analysis used to statistically determine whether the null shall be accepted or rejected in each case. Chapter 4 reports the research results, findings,

including data analysis, tables, and descriptive statistics. Chapter 5 provides conclusions and a discussion of the research findings.

CHAPTER TWO

Review of the Literature

Public education is inextricably linked to our democratic society. As such, demands are made of education institutions by means of public opinion, political regulation, and professional research recommendations resulting from current issues and trends.

Public opinion. Phi Delta Kappa and the Gallup Organization have conducted an annual opinion survey for the past 40 years that allows education professionals and policy makers to monitor society's perception of the teaching and learning that is thought to be taking place within our public schools. Respondents to the 2008 survey reveal that while parents continue to believe their own students' schools are above average, society as a whole grades American public education as average to below average. However, parents remain receptive to educational reforms, including national academic standards and significant changes to the No Child Left Behind legislation (Bushaw & Gallup, 2008).

Political regulations. One would be hard-pressed to find a professional educator in this country who is not familiar with Public Law 107-110, more commonly known and cited as the No Child Left Behind Act of 2001 (NCLB). Former President George W. Bush signed the act into law in January 2002 as reauthorization of the Elementary and Secondary Education Act of 1994. The aim of the law is "to close the achievement gap with accountability, flexibility, and choice," so "no child is left behind" (NCLB, 2002, p. 1). Specific guidelines are in place within the law for assessment and testing, and require that graduation rates be considered and reported as part of public accountability measures. The law further calls for sanctions for those institutions that fail to

demonstrate increased student achievement, creating significant implications for schools as they examine standards, curricular offerings, and improvement efforts aimed at increasing student achievement and high school graduation (NASSP, 2005; NCLB, 2001).

Implications of the reauthorization of the Carl D. Perkins Vocational and Technical Education Act of 2006 are no less important than the more widely known NCLB legislation. The Carl D. Perkins Vocational and Technical Education Act of 2006 requires public high schools to blend career and technical learning with core curriculum in order to better prepare graduates for both college and careers (Hoachlander, 2007). By blending core academic concepts with technical and career training, the goal of this legislation is to help educators lead students to answer the proverbial questions of, "How am I going to use this in real life?" or "Why do I need to learn this?", simultaneously increasing the opportunities for engagement in and completion of high school (Bottoms, 2008; Hoachlander, 2007; NASSP, 1996).

Professional research recommendations. Professional organizations, too, weigh in on current practice in our schools. One such example is research and deliberation posited by the Commission on the Restructuring of the American High School, with the support of the National Association of Secondary School Principals (NASSP) and the Carnegie Foundation for the Advancement of Teaching, resulting in the following reports: *Breaking Ranks: Changing an American Institution* (1996) and *Breaking Ranks II: Strategies for Leading High School Reform* (2004). Both publications drew on research initiated by the Coalition of Essential Schools, findings from prior National Education Commissions on Time and Learning reports (1983 & 1994), and

educators' first-hand experiences with teaching, learning, and successful school programs. Together, these whitepapers provide school leaders with a summary of current research on best practices outlining recommendations for restructuring education institutions in order to meet the needs of an ever-changing American society and global workplace. Importantly, implications for practitioners seeking ways in which to improve transition practices for incoming high school students' success is also asserted (NASSP, 2004).

As a collaborative effort the Nebraska School Counselor Association (NCSA) and the Nebraska Department of Education (NDE) School Counseling division have adopted a framework for implementing a guidance program based on the American School Counselor Association (ASCA) National Model and the Nebraska Career Education (NCE) Career Fields/Cluster Model (NDE, 2006). The two organizations' missions and models overlap to provide administrators and teachers with recommendations to improve student achievement through career planning initiatives, improved in-school pro-social communication skills, and sound school wide mental health practices (NDE, 2006).

The ASCA National Model emphasizes research-based best practice initiatives in academic, career, and personal/social development domain areas that school administrators, teachers, and counselors may implement to help students acquire the academic and life skills necessary to succeed beyond high school graduation (NDE, 2006; American School Counselor Association [ASCA], 2009). The NCE Career Fields/Cluster Model was a result of work completed by national committees comprised of educators and business and industry leaders. The model aligns with the U.S. Department of Labor occupational classification system providing both a visual map and

curriculum framework for integrating academics and career planning. The U.S. Department of Labor occupational classification system further serves to help students, parents, and educators realize the links between their education and the ability to succeed in life (Nebraska Career Connections, 2009; NDE, 2006).

Legislative directives and recommendations from professional organizations and literature are influenced by societal demands that public schools produce high school graduates who are better prepared for post-secondary study and transition into a highly technical, ever-changing, global workforce in which they must be able to compete. In an effort to meet these demands, school leaders are paying particular attention to the unique needs of students as they transition from middle to high school. In order to make more informed decisions about how to prepare students to successfully complete high school, educators must: (a) clearly identify the critical academic needs of high school students (ASCA, 2009; Beland, 2007; CASEL, 2003; DiMartino & Castaneda, 2007; NASSP, 1996; NDE, 2006), (b) understand the unique physical and emotional changes adolescents experience (Blakemore, 2008; Bremer & Smith, 2004; CASEL, 2003; Dawson & Guare, 2009; DuFour, DuFour, Eaker & Karhanek, 2004; Hair et al., 2002; Hill & Thompson, 2002; Lewis, 1991; Price, 2005; Sornson, 2007; Susman & Rogol, 2004; Sprenger, 2005; Willis, 2006; Willis, 2007; Wolfe, 2005), and (c) implement contextual practices that support a community of learners and success for every student (Bottoms, 2008; Cotton, 1996; Cushman, 2006; DuFour et al., 2004; Donegan, 2008; Gideon, 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; Mizelle, 2005; NASSP, 2004; Smith, 1997; Stader & Gagnepain, 2000; Quint, 2006).

Critical Academic Needs of High School Students

With cries from one corner insisting education go *back to the basics* and equally loud cries ringing from the other corner insisting schools prepare youth for the workforce, educators find themselves in the public's crossfire regarding what high school students need to learn in order to be successful upon graduation. After all, students' interests and ambitions vary, leading them to any combination of endeavors after graduation, from the workforce to apprenticeships, the military to some type of post-secondary education or training institution (NASSP, 1996). As such, high schools have a responsibility to offer programs and curriculum that allow students to master skills for (a) learning, (b) earning, and (c) living (NASSP, 1996; NDE, 2006; ASCA, 2009).

Learning. Students leaving high school need to do so with a strong foundation of academic skills in core content areas of language arts, math, science, and social studies that would prepare them for success in a variety of postsecondary education options. Also students must master knowledge and skills in elective content areas such as fine arts, practical arts, and physical education (NASSP, 1996; NDE, 2006). The curriculum in each content area needs to challenge all students and simultaneously engage them so they are better able to recognize the relationship between and extend academic studies to real-world applications. Moreover, students need to understand how to learn. Many, especially those first entering high school, need help and guidance in order to master the self-discipline, critical-thinking, and study skills that will help them become successful, independent lifelong learners (NASSP, 1996; NDE, 2006).

Earning. Students graduating from high school should do so with an understanding of the relationships between personal qualities, education, training, and the

world of work (NDE, 2006). Ideally, students leaving high school should have a career goal in mind. At a minimum, graduates need the skills to enable them to set career goals and investigate options in relation to an understanding of their own strengths and interests. Furthermore, in order to prepare graduates for the workforce, schools need to ensure that students leave high school with skills sought by most employers, including oral and written communication, time management, critical thinking, problem solving, personal accountability, and teamwork skills (DiMartino & Castaneda, 2007; NASSP, 1996; NDE, 2006).

Living. High school graduates need to have mastered the knowledge, attitudes, and interpersonal skills to help them understand themselves and others in order to be successful in society. Graduates also must be able to set goals and act with self-motivation to make the necessary decisions to successfully attain those goals.

Furthermore, high school graduates are more likely to complete a successful transition to work or post-secondary educational experiences if they can recognize and manage emotions in order to form relationships and work well with others in a diverse world (Beland, 2007; NASSP, 1996; NDE, 2006). According to the Coalition for Academic, Social, and Emotional Learning (CASEL), high school curriculum must provide for the direct instruction of so-called *soft* social skills including: (a) social awareness, (b) self-awareness, (c) self-management, (d) relationship skills and (e) responsible decision-making (Beland, 2007; CASEL, 2003).

Having an understanding of the inter-related knowledge and skills adolescents need to master to prepare for young adulthood, learning, earning, and living is only part of the planning puzzle for school leaders interested in improving 9th-grade students'

success during the first year of high school. As students transition from one phase of their educational careers to the next, educators need to also consider adolescents' unique physical and emotional changes.

Unique Physical and Emotional Changes

Traditionally schools have used a reactionary wait-and-see approach for students as they make the transition from middle school to high school, providing interventions only after students experience academic and/or behavioral failings in the early months of their high school career (DuFour et al., 2004; Sornson, 2007). Today, however, high schools have put interventions in place to provide academic and social support to students as they transition from middle to high school based on the unique developmental needs of adolescents, including youthful brain development (DuFour et al., 2004; Sornson, 2007). Having an understanding of how brain research and puberty impact adolescents' learning, behavior, and relationships helps educators develop pro-active routines that support students' success in high school (Dawson & Guare, 2009; Hill & Thompson, 2002; Price, 2005; Sprenger, 2005; Willis, 2006; Willis, 2007; Wolfe, 2005).

Brain research. Technology has had a significant impact on what we know and can learn about the brain and the science of teaching and learning. Information gathered from imaging technology such as computerized axial tomography (CAT scans), position emission tomography (PET scans), functional magnetic resonance imaging (fMRI), and quantitative electroencephalography brain wave monitoring (qEEG) provide educators with valuable information to guide the planning and programming in schools that support students' academic achievement and personal development (Blakemore, 2008; Willis, 2006; Willis, 2007).

Information that allows humans to function physically, cognitively, and emotionally travels in the brain by means of electrical impulses moving between neurons. Neurons that make up the brain and nervous system are composed of a cell body, an axon, and dendrites. An axon carries electrical impulses away from a neuron's cell body and transfers those impulses across microscopic gaps called synapses to another neuron's receptors, called dendrites. The dendrites receive the impulses and carry them to the new neuron's cell body (Hill & Thompson, 2002; Willis, 2006; Willis, 2007). Protein chemicals in the brain called neurotransmitters fill the microscopic gaps or synapses between axons and dendrites and work to either excite or inhibit activity in the postsynaptic, or receiving neuron's dendrites (Hill & Thompson, 2002; Willis, 2006; Willis, 2007). Understanding neurotransmitters and their effects on adolescents has implications for planning appropriate support systems and interventions for students entering high school. For example, dopamine, which has been found to be released in response to rewards and positive experiences, is a neurotransmitter associated with attention, decision-making, executive function, and reward-stimulated learning. Neuroimaging indicates that adolescents release greater amounts of dopamine during active learning as they complete lessons with high stimulus value similar to dopamine release during physical activity. Given the relationship between dopamine levels and successful participation in learning activities--that emphasize doing and making--increasing these opportunities may improve adolescent learning participation and success (Sprenger, 2005; Willis, 2006; Willis, 2007).

Adolescents also need rest to support their growing bodies in order to perform at their best (Sprenger, 2005; Wolfe, 2005). Without appropriate levels of rest, serotonin

(another neurotransmitter that is secreted between the sixth and eighth hour of sleep) levels may be insufficient to support positive mood and affect required for relationship and classroom success. When neurotransmitters are carrying too many electric impulses without appropriate breaks, they become depleted and reduce the speed and efficiency at which transmissions are made across synapses (Willis, 2006; Willis, 2007).

Again, neurotransmitters carry electrical impulses between neurons across microscopic gaps called synapses. As children grow and experience new learning in multiple ways, synapses increase to create more pathways through which electric impulses travel, increasing their ability to build connections between old and new information and respond to stimuli. As connections are reinforced through repeated learning, multiple variations, and success, synaptic pathways are maintained or *hard-wired* in various regions of the brain responsible for specific brain functions that influence adolescents' academic, social, and emotional success throughout school (Willis, 2006; Willis, 2007).

The temporal lobe, for example, is found on both sides of the brain. It processes auditory information and plays an important role in regulating memory and emotion. Executive functions of the brain that allow an individual to exercise conscious control over emotions and thoughts take place in the left frontal lobe and prefrontal cortex of the brain. The frontal lobe plays an important role in arranging information in various types of memory patterns and focusing attention. The prefrontal cortex, which is the last part of the brain to mature, is responsible for moral reasoning, controlling emotions, solving problems, planning, prioritizing, and self-correcting. Research suggests that adolescents' difficulties with making decisions that adults would consider wise is influenced by the

late maturation of the prefrontal cortex well into a person's late teens or early twenties (Blakemore, 2008; Dawson & Guare, 2009; Price, 2005; Willis, 2006; Willis, 2007).

As adolescents develop, regularly used synaptic pathways and connections in all areas of the brain are maintained while less frequently used synaptic pathways and connections die off or are *pruned*. Research has shown that synaptic density levels increase and decrease over a person's lifespan in a pattern resembling an inverted-U. Infants and adults have roughly the same synaptic density levels while adolescents have higher synaptic density levels. As adolescents enter puberty, synaptic elimination or pruning begins, resulting in a person's ability to respond to stimuli in what society would consider a mature, focused, and responsible manner (Hill & Thompson, 2002; Price, 2005; Willis, 2006; Willis, 2007). In many cases, society has awarded freedoms to adolescents prior to their physiological preparedness to recognize the short and long-term consequences of their actions. Educators who are responsible for implementing programs and interventions for students entering high school need to remain cognizant of this developmental fact so as to provide appropriate support for students as they explore various opportunities and relationships (Dawson & Guare, 2009; Price, 2005). In short, adolescents are not young adults, and they will only thrive and succeed in learning environments that understand this distinction.

Puberty. While adolescence and puberty are related, the terms should not be considered synonymous. Adolescence refers to the stage in a person's life spanning from puberty to adulthood. It is a time period marked by physiological and psychological changes, including brain development and puberty that have an impact on children's social and emotional development. The term puberty, which comes from the Latin word

pubertas, meaning *age of maturity*, refers to the onset of a multi-step physiological development process in a young person's body leading to sexual maturity (Lewis, 1991; Price, 2005; Susman & Rogol, 2004).

Hormonal changes affect the physical changes adolescents experience through each period of puberty. During the pre-pubescent period of 6 to 8 years of age, an increase in adrenal hormones results in skeletal growth, hair growth and skin changes. The pubescent period begins around age 9 when tropic hormones are released contributing to growth spurts, pubic hair growth, breast development in girls, and testicular development in boys. The onset of girls' menses tends to take place late in the pubescent period as do the appearance of facial hair and changes in voice for boys (Lewis, 1991; Price, 2005; Susman & Rogol, 2004).

The age at which the onset of puberty begins has implications for adolescents' social and emotional development. As physical signs of puberty become apparent, adolescents react internally, becoming self-conscious about being different from their peers, while their peers react externally to the outward changes they observe. Research indicates that boys who show early signs of physical maturation tend to experience higher self-esteem and greater popularity among peers. Girls who show early signs of physical maturity, on the other hand, have a tendency to suffer from lower-self esteem and are at a higher risk for anxiety, depression, and eating disorders (Price, 2005; Susman & Rogol, 2004). Late bloomers, whether male or female, tend to experience lower-self esteem and stress out of concern they are lagging behind their peers and are more likely to be teased by others (Price, 2005; Susman & Rogol, 2004).

As students enter high school, usually at the age of 14-15 years, they are entering a period referred to as mid-adolescence. In this developmental stage, many will still be dealing with their self-image due to puberty during early adolescence. Added to this, however, mid-adolescents will make efforts to loosen ties to parents and other adult authority figures due to their developing intellectual and emotional capacities. They may become more adventuresome and take more risks as they develop their own sets of personal values and begin to exert autonomy, independence, and a greater sense of responsibility (Lewis, 1991; Price, 2005).

It is important that educators understand the neurological and physiological reasons behind adolescents' behaviors as they enter high school so they are better prepared to provide supports and interventions that will lead to students' social and emotional competence (Bremer & Smith, 2004; CASEL, 2003; Hair et al., 2002; Lewis, 1991). Adolescents who are socially and emotionally competent are better prepared to achieve personal goals, tend to be more aware of themselves and others, have self-management skills necessary to make decisions and solve problems, and are able to maintain positive relationships with peers and parents (Bremer & Smith, 2004; CASEL, 2003; Hair et al., 2002). Students who experience the sense of success that results from social and emotional learning have been shown to be more motivated, committed to learning, less disruptive, and more successful in school overall (Bremer & Smith, 2004; CASEL, 2003).

In order to create opportunities for students' successful transition from middle school to high school, school leaders need to consider many factors. First, school leaders need to consider both the knowledge and skill sets high school students need to master in

order to learn, earn, and live. Consideration must also be given to the physical and emotional changes unique to adolescents in order to help support students' social and emotional competence. Finally, having an understanding of successful practices from other high schools will further inform decision-makers' planning efforts for students' success.

Contextual Practices that Support Success

As high schools work to meet societies' demands to improve student achievement, many are taking a closer look at the research on adolescent development as it applies to students' initial year of high school. As a result, several practices are beginning to emerge to ease the transition from middle school to high school and increase the likelihood of success. Research suggests that students who experience four or more teacher-directed positive transition activities in support of this move from middle school to high school are much more likely to experience success in high school than their peers who experience three or fewer positive teacher-directed transition practices (Hertzog & Morgan, 1999; McIntosh & White, 2006). Many of the positive teacher-directed transition practices highlighted in the research center on ways that school communities work to: (a) ease the anxieties associated with the enrollment process, (b) create a warm, welcoming atmosphere where students feel encouraged to engage in all aspects of the school, and (c) create a more personalized environment that supports the unique academic, personal, and social issues outlined above (Blum, 2005; Bottoms, 2008; Cotton, 1996; Cushman, 2006; DuFour et al., 2004; Gideon, 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; Mizelle, 2005; NASSP, 2004; Smith, 1997; Stader & Gagnepain, 2000; Quint, 2006).

Practices that ease enrollment anxieties. Communication between 8th-grade and 9th-grade teachers, counselors, and administrators prior to the enrollment process helps professionals identify students' particular learning needs and make appropriate course recommendations (DuFour et al., 2004; Mizelle, 2005; Smith, 1997). Such professional dialogue also affords teachers the opportunity to align curriculum content and expectations between grade levels, ensuring students experience continuity and appropriate rigor in their coursework as they move from middle school to high school (Bottoms, 2008; DuFour et al., 2004; Gideon, 2004; Mizelle, 2005).

Communication with students prior to registration is also important (Bottoms, 2008; Cushman, 2006). As a common transition practice in many schools, high school counselors, administrators and/or students meet once with 8th-grade students immediately prior to enrollment to explain course offerings and graduation requirements (Hertzog & Morgan, 1999; McIntosh & White, 2006; Smith, 1997). Some high schools go further, however, and have those same presenters meet regularly throughout the year with small groups of 8th-grade students to help address their questions and concerns about what to expect during their initial year of high school (Cushman, 2006; McIntosh & White, 2006; Smith, 1997).

Parents are often as anxious about their student's transition to high school as students themselves, so it is not uncommon for high school counselors and administrators to provide an evening forum to explain course offerings and graduation requirements for parents as well (Hertzog & Morgan, 1999; McIntosh & White, 2006; Mizelle, 2005; Smith, 1997).

Practices that create a warm, welcoming atmosphere. Providing opportunities for 8th-graders to become familiar with their new school means more than enrolling them in high school courses. High schools are often quite large and intimidating places for adolescents, so providing activities to help students become familiar with their new surroundings helps them feel more welcome and confident (Cushman, 2006; DuFour et al., 2004; Gideon, 2004; Hertzog & Morgan, 1999; Mizelle, 2005).

Inviting students and their parents to tour the high school facility during the spring semester of students' 8th-grade year or during the summer prior to starting 9th-grade has become a common transition practice for many schools (Cushman, 2006; DuFour et al., 2004; Gideon, 2004; Hertzog & Morgan, 1999; Mizelle, 2005; Smith, 1997). Some tours offer an open house setting where members from extra-curricular and co-curricular clubs and activities set up information booths as a way to inform incoming high school students of the myriad of opportunities available to them at their new school (DuFour et al., 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006). Some practitioners, especially those at larger high schools with multiple feeder middle schools, have organized social events throughout the summer months, encouraging incoming high school students to take part as a way to get to know both the building and their new classmates (Cushman, 2006; Hertzog & Morgan, 1999; Mizelle, 2005).

One last practice that many schools implement in order to help build 9th-grade students' sense of confidence and belonging is to have only 9th-grade students attend the first day of the school year, allowing them to navigate the hallways with their new schedules in hand, meet the teaching staff, and even open their lockers without the threat

of interference or intimidation that older students sometimes bring (Cushman, 2006; Gideon, 1999; Hertzog & Morgan, 1999; Mizelle, 2005).

Practices that personalize the environment. Examples of practices exist throughout the literature that point to the benefits of creating smaller, more personalized environments to help ease the transition experience for incoming 9th-grade students (Blum, 2005; Bottoms, 2008; Cotton, 1996; Cushman, 2006; Donegan, 2008; DuFour et al., 2004; Gideon, 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; NASSP, 2004; Stader & Gagnepain, 2000; Quint, 2006). Regardless of the programs' various titles or unique twists, the key is to place new high school students in small, caring, supportive atmospheres where there are adults positioned to monitor, guide, and encourage students' efforts as they navigate the first year of high school (Blum, 2005; Bottoms, 2008; Cotton, 1996; Cushman, 2006; DuFour et al. 2004; Gideon, 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; NASSP, 2004; Stader & Gagnepain, 2000; Quint, 2006).

Small-school initiatives have garnered a good deal of attention in educational research as a means of supporting students' academic efforts and personal/social needs (Blum, 2005; Bottoms, 2008; Cotton, 1996; Cushman, 2006; McIntosh & White, 2006; Quint, 2006). Sometimes referred to as schools-within-schools, 9th-grade academies, or teams with guided study halls, the idea behind these scenarios is for 9th-grade students to experience high school as a more familiar structure akin to middle school, where a limited, more manageable number of students are assigned to a team of core area teachers, counselors and administrators (Bottoms, 2008; Donegan, 2008; Gideon, 2004; Hertzog & Morgan, 1999; NASSP, 2004; Stader & Gagnepain, 2000). With fewer

students for which to be responsible, staff are better able to know each student individually, meet their unique learning needs, monitor and communicate their progress, and step in with interventions as needed (Bottoms, 2008; Cotton, 1996; NASSP, 2004; Stader & Gagnepain, 2000; Quint, 2006). Where facilities permit, school systems may go so far as to assign the 9th-grade as a class to an isolated location of a larger high school campus in order to further perpetuate a sense of belonging, support, and security (Cushman, 2006; Gideon, 2004; McIntosh & White, 2006; Quint, 2006). School systems that are able to implement these types of initiatives increase the likelihood of opportunities for both the quantity and quality of student and adult interactions where staff become invested in their students and students feel more connected and enthused about school (Blum, 2005; Cotton, 1996; Cushman, 2006; Donegan, 2008; Gideon, 2004; Hertzog & Morgan, 1999; NASSP, 2004).

Professional literature also points to advisory or homeroom programs as a means to create a more caring, supportive environment in which to help students succeed academically, personally, and socially (Blum, 2005; Bottoms, 2008; Cushman, 2006; DuFour et al., 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; NASSP, 2004; Stader & Gagnepain, 2000; Quint, 2006). Examples can be found where 9th-grade students alone comprise the advisement group using upper-grade students as peer advisors or mentors who lead study sessions, discussions, and team-building activities (Bottoms, 2008; Cushman, 2006; DuFour et al., 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; Stader & Gagnepain, 2000). Other advisory models mix students in various grade combinations with the idea that students from all grade levels interact on a regular basis to ease younger students' concerns regarding *pecking order*

(Cushman, 2006; Stader & Gagnepain, 2000). The common thread with advisories, regardless of the programs' title or student combination, is that upper-grade students ideally serve as peer role models for 9th-grade students alongside one caring adult advisor to whom students can turn for support and guidance throughout their high school careers (Bottoms, 2008; Cushman, 2006; DuFour et al., 2004; Hertzog & Morgan, 1999; McIntosh & White, 2006; NASSP, 2004; Stader & Gagnepain, 2000; Quint, 2006).

Conclusion

Rather than react to students after they experience discouragement and possible failure common during the pivotal 9th-grade year, transition intervention programs must address career preparation, academic achievement, and social/emotional issues unique to adolescents as they enter a new level of education. In an effort to increase student achievement, the research school of this study created a pro-active program for 9th-grade students by implementing recommendations from the professional research literature combined with the positive qualities of promising practices discussed above.

CHAPTER THREE

Methodology

The purpose of this study was to determine the effect of a Career, Academic, Personal, and Social (CAPS) high school transition program option on 9th-grade students' achievement, behavior, and engagement.

The study focused on 9th-grade students involved in two courses of study as they transitioned into a suburban high school. Ninth-grade students who elected to participate in the CAPS transition program and 9th-grade students who elected to take a full load of courses with no CAPS participation, referred to as the Academic/Elective Course Option (AECO) group, served as study participants. This chapter describes the participants, procedures, independent variable descriptions, dependent measures and instrumentation, research questions, and data analysis.

Participants

Number of participants. Sixty 9th-grade CAPS ($n = 30$) and AECO ($n = 30$) program students were randomly selected to participate.

Gender of participants. Of the total number of CAPS program participants identified for this study ($n = 30$), the gender ratio was 16 boys (53%) and 14 girls (47%). Of the total number of AECO program participants identified for this study ($n=30$), the gender ration was 14 boys (47%) and 16 girls (53%). The gender ratio of the study participants was congruent with the research school's overall gender demographics.

Age range of participants. The age range of the study participants was 13 years to 16 years.

Racial and ethnic origin of participants. Of the total number of CAPS program participants identified for this study ($n = 30$), the racial and ethnic origin was 26 White, not Hispanic (87%); 0 Black, not Hispanic (0%); 4 Hispanic (13%); 0 Asian/Pacific Islander (0%); and 0 Native American Indian (0%). Of the total number of AECO program participants identified for this study ($n = 30$), the racial and ethnic origin was 26 White, not Hispanic (87%); 0 Black, not Hispanic (0%); 1 Hispanic (3%); 3 Asian/Pacific Islander (10%); and 0 Native American Indian (0%). The racial and ethnic origin of the study participants was congruent with the research school's overall racial and ethnic origin demographics.

Inclusion criteria of participants. The students in the CAPS and AECO programs who completed all study assessments, completed 7th-grade and 8th-grade in the district, and who successfully earned credit hours sufficient for promotion from the 9th-grade to the 10th-grade were randomly selected for study participation.

Exclusion criteria of participants. Students enrolled in Special Education classes with a verified disability and who were not enrolled in core 9th-grade classes were not included in the study. Students referred to off-site alternative school placement during their 9th-grade year who did not participate in CAPS were also excluded from the study.

Method of participant identification. Participants for the CAPS group ($n = 30$) were randomly selected from a group of 129 9th-grade students who completed 7th and 8th-grades in the school district and who chose not to take a full load of courses and, therefore, participated in the CAPS program. An equal number of AECO group students ($n = 30$) were randomly selected from a group of 76 9th-grade students who completed

7th and 8th-grades in the school district and who chose to enroll in a full load of courses and, subsequently, did not participate in the CAPS transition program. No individual identifiers were attached to the achievement, behavior, or engagement data collected. All data were collected retrospectively from administratively controlled databases used for school planning and student guidance.

Research Design

The pretest-posttest two-group comparative efficacy study design is displayed in the following notation:

Group 1 $X_1 O_1 Y_1 O_2$

Group 2 $X_1 O_1 Y_2 O_2$

Group 1 = study subjects #1. Randomly selected group of students ($n = 30$).

Group 2 = study subjects #2. Randomly selected group of students ($n = 30$).

X_1 = study constant. All study subjects successfully completed in-district 7th-grade and 8th-grade required regular education coursework.

Y_1 = study independent variable course of study condition #1. Ninth-grade students' participation in the CAPS transition program.

Y_2 = study independent variable course of study condition #2. Ninth-grade students' participation in the AECO program without CAPS participation.

O_1 = study pretest dependent measures. (1) Achievement skills as measured by 9th-grade students' pretest end of 8th-grade (a) EXPLORE Norm Referenced Test (*i*) reading, (*ii*) English, (*iii*) math, and (*iv*) science standard and raw scores and (b) students' pretest end of 8th-grade report card (*i*) English, (*ii*) math, (*iii*) science, and (*iv*) social

studies course grades. (2) Behavior as measured by 9th-grade students' pretest end of 8th-grade: (a) attendance and (b) tardy data.

O₂ = study posttest dependent measures. (1) Achievement skills as measured by 9th-grade students' posttest beginning of 10th-grade (a) PLAN Norm Referenced Test (i) reading, (ii) English, (iii) math, and (iv) science standard and raw scores and (b) students' posttest end of 9th-grade report card (i) English, (ii) math, (iii) science, and (iv) social studies course grades. (2) Behavior as measured by 9th-grade students' posttest end of 9th-grade: (a) attendance and (b) tardy data. (3) Engagement as measured by 9th-grade students' posttest end of 9th-grade (a) athletic, (b) co-curricular, and (c) extra-curricular activity participation frequencies.

Description of Procedures

Permission from the appropriate school research personnel was obtained. All study data was routinely collected archival school information. Achievement data was collected using ACT EXPLORE NRT scores taken late in the spring 2006 semester as students were exiting 8th-grade and ACT PLAN NRT scores taken early in the fall 2007 semester as students were beginning 10th-grade. Both NRT assessments consisted of scores in reading, English, math, and science. Scores were compared to ACT established college readiness benchmarks and also converted to standard scores for statistical analysis. Report card grades and behavior data were routinely collected and available in school and district databases. Reported engagement data were collected utilizing participation rosters routinely submitted to administration by extra-curricular activity personnel.

Independent Variable Descriptions

CAPS. In lieu of a traditional study hall, 9th-grade students who chose to enroll in seven of eight possible periods of instruction are automatically assigned to the Career, Academic, Personal, Social (CAPS) program to fill the empty period in their schedule. The CAPS program was conceptualized to help students make a successful transition to high school. Each of the identified areas of study, Career, Academic, Personal, and Social had its own content. CAPS Supervisors were certified teachers who provided students with information and guidance to successfully manage their own lives. The students who participated in CAPS served as one independent variable.

CAPS participants were divided into classes, referred to as Houses, of no more than 30 students who met daily for 44 minutes of study time and structured instruction. Three days per week were reserved for independent study time where upperclassmen were available as tutors and study group facilitators. The remaining two days each week had scheduled lessons that lasted between 15 and 44 minutes, dealing with topics that addressed each of the four domains that created the acronym for the program. For example, over the course of the year CAPS participants completed Career interest inventories, practiced Academic skills such as test and note-taking strategies, set and monitored Personal goals, and explored Social issues associated with adolescence and transition to high school.

There were no course grades or graduation credits associated with the CAPS program. House Points, monthly contests, and recognition events, however, were built in to promote a sense of community and accomplishment, while helping students grow personally and socially. Houses accumulated House Points when students demonstrated

behaviors that promoted academic success and positive engagement in high school experiences. For example, Houses earned points each day based on the percent of students who were on time, prepared with study materials, used time wisely to complete homework, and behaved as active participants when guest speakers presented.

Houses also competed in monthly contests in order to earn points. The contests related to each month's theme, which in turn related to one of the four program domains. For example, the theme for November/December was "Giving," which was tied to the Social domain of instruction. Students completed community service hours toward their graduation requirements; the House with the highest percentage of community service hours completed per student won the month's contest and was awarded House Points accordingly.

House Points were awarded to individual students as recognition for such things as being named in the local paper or selected to play a part in a school theater production. At the end of each quarter, the House with the highest number of points was recognized in the school newsletter and rewarded with a special prize such as a field trip or pizza party.

A certified teacher was assigned to each period of CAPS. Each CAPS supervisor was not only responsible for ensuring an environment conducive for independent or group study where appropriate, but also for monitoring their students' academic progress, helping students set and monitor individual academic and personal goals, tabulating House Points, and presenting curriculum within the domain areas of the program.

AECO. Ninth-grade students who chose to enroll in eight of eight possible periods of instruction did not have room in their schedule to participate in the CAPS

program. These students chose a full load of Academic and Elective area Course Options (AECO) without a study period. AECO students served as a second independent variable course of study condition.

Dependent Variables, Measures, and Instrumentation

Three overarching dependent variables were evaluated for this study, 1) student achievement, 2) behavior, and 3) engagement during 9th-grade.

Achievement dependent measures and instrumentation. Students' total reading, English, math, and science scores from ACT's EXPLORE pretest and PLAN posttest assessments were used as one measure of student achievement. Students' 8th-grade spring 2006 semester report card grades and 9th-grade spring 2007 semester report card grades for core courses, English, math, science, and social studies, were a second measure of student achievement. Semester report card grades for core courses were collected from students' school database records.

Behavior dependent measures and instrumentation. Reported attendance and tardy data for students' 8th-grade school year and 9th-grade school year were collected from students' school database records and used to measure behavior.

Engagement dependent measures and instrumentation. Routinely reported and collected participation rosters served as posttest data used to determine students' 9th-grade engagement in athletic, co-curricular, and extra-curricular activities.

Research Questions and Data Analysis

The following questions were addressed and answered as part of this study:

Overarching Pretest-Posttest Achievement Research Question #1. Did CAPS participants lose, maintain, or improve their 8th-grade compared to 10th-grade NRT reading, English, math, and science achievement standard scores?

Sub-Question 1a. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT reading achievement standard scores after participating in the CAPS transition program?

Sub-Question 1b. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT English achievement standard scores after participating in the CAPS transition program?

Sub-Question 1c. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT math achievement standard scores after participating in the CAPS transition program?

Sub-Question 1d. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT science achievement standard scores after participating in the CAPS transition program?

Analysis. Research Sub-Questions #1a, 1b, 1c, and 1d were analyzed using dependent t tests to examine significance of the difference between CAPS students' ending 8th-grade EXPLORE pretest compared to beginning 10th-grade PLAN posttest NRT achievement scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Pretest-Posttest Achievement Research Question #2. Did AECO participants lose, maintain, or improve their 8th-grade compared to 10th-grade NRT reading, English, math, and science achievement standard scores?

Sub-Question 2a. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT reading achievement standard scores after participating in AECO?

Sub-Question 2b. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT English achievement standard scores after participating in AECO?

Sub-Question 2c. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT math achievement standard scores after participating in AECO?

Sub-Question 2d. Was there a significant difference between students' 8th-grade compared to 10th-grade NRT science achievement standard scores after participating in the CAPS transition program?

Analysis. Research Sub-Questions #2a, 2b, 2c, and 2d were analyzed using dependent *t* tests to examine significance of difference between AECO student's ending 8th-grade EXPLORE pretest compared to beginning 10th-grade PLAN posttest NRT scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #3. Did students who participated in CAPS and AECO programs have different or congruent

ending 8th-grade compared to beginning 10th-grade PLAN NRT reading, English, math, and science standard scores?

Sub-Question 3a. Was there a significant difference between participants' PLAN NRT reading standard scores after completing CAPS and AECO school experiences?

Sub-Question 3b. Was there a significant difference between participants' PLAN NRT English standard scores after completing CAPS and AECO school experiences?

Sub-Question 3c. Was there a significant difference between participants' PLAN NRT math standard scores after completing CAPS and AECO school experiences?

Sub-Question 3d. Was there a significant difference between participants' PLAN NRT science standard scores after completing CAPS and AECO school experiences?

Analysis. Research Sub-Questions #3a, 3b, 3c, and 3d were analyzed using Analysis of Covariance adjusted for 9th-grade pretreatment differences to examine the significance of the difference between students who participated in CAPS and AECO posttest PLAN standard scores. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type 1 errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #4. Did students who participated in the CAPS program have beginning 10th-grade posttest PLAN reading, English, math, and science at, above, or below benchmark score

frequencies that are congruent with or different from the 10th-grade posttest PLAN reading, English, math, and science at, above, or below benchmark score frequencies for students who participated in the AECO program?

Sub-Question 4a. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT reading subtests the same for students who participated in CAPS and AECO school experiences?

Sub-Question 4b. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT English subtests the same for students who participated in CAPS and AECO school experiences?

Sub-Question 4c. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT math subtests the same for students who participated in CAPS and AECO school experiences?

Sub-Question 4d. Were at, above, or below benchmark score observed frequencies for EXPLORE compared to PLAN NRT science subtests the same for students who participated in CAPS and AECO school experiences?

Analysis. Research Sub-Questions #4a, 4b, 4c, and 4d utilize a chi-square test of significance to compare observed versus expected EXPLORE compared to PLAN NRT at/above or below benchmark score frequencies for 9th-grade students who participated in the CAPS and AECO programs. Because multiple statistical tests were conducted, a .01 alpha level was employed to help control for Type I errors. Frequencies and percents were displayed on tables.

Overarching Pretest-Posttest Achievement Research Question #5. Did CAPS participants lose, maintain, or improve their second-semester 8th-grade compared to second-semester 9th-grade core course grades?

Sub-Question 5a. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade English grades after participating in the CAPS transition program?

Sub-Question 5b. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade math grades after participating in the CAPS transition program?

Sub-Question 5c. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade science grades after participating in the CAPS transition program?

Sub-Question 5d. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade social studies grades after participating in the CAPS transition program?

Analysis. Research Sub-Questions #5a, 5b, 5c, and 5d were analyzed using dependent t tests to examine significance of difference between CAPS students' 8th-grade pretest compared to 9th-grade posttest course grades. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Pretest-Posttest Achievement Research Question #6. Did AEEO participants lose, maintain, or improve their second-semester 8th-grade compared to second-semester 9th-grade core course grades?

Sub-Question 6a. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade English grades after participating in the AECO?

Sub-Question 6b. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade math grades after participating in the AECO?

Sub-Question 6c. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade science grades after participating in the AECO?

Sub-Question 6d. Was there a significant difference between students' second-semester 8th-grade compared to second-semester 9th-grade social studies grades after participating in AECO?

Analysis. Research Sub-Questions #6a, 6b, 6c, and 6d were analyzed using dependent *t* tests to examine significance of difference between AECO students' second-semester 8th-grade pretest compared to second-semester 9th-grade posttest course grades. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #7. Did students who participated in CAPS and AECO programs have different or congruent second-semester 9th-grade compared to second-semester 9th-grade core course grades?

Sub-Question 7a. Was there a significant difference between 9th-grade students' second-semester English course grades after completing CAPS and AECO school experiences?

Sub-Question 7b. Was there a significant difference between 9th-grade students' second-semester math course grades after completing CAPS and AECO school experiences?

Sub-Question 7c. Was there a significant difference between 9th-grade students' second-semester science course grades after completing CAPS and AECO school experiences?

Sub-Question 7d. Was there a significant difference between 9th-grade students' second-semester social studies course grades after completing CAPS and AECO school experiences?

Analysis. Research Sub-Questions #7a, 7b, 7c, and 7d were analyzed using independent *t* tests to examine the significance of the difference between 9th-grade CAPS students' second-semester core course grades compared to 9th-grade AECO students' core course grades. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Achievement Research Question #8. Did those 9th-grade students who participated in the CAPS program have total year observed attendance and tardy frequencies that are congruent or different from the observed total year attendance and tardy frequencies for those students who participated in the AECO program?

Sub-Question 8a. Were the total year observed frequencies for attendance the same for 9th-grade students who participated in the CAPS and AECO school experiences?

Sub-Question 8b. Were the total year observed frequencies for tardies the same for 9th-grade students who participated in the CAPS and AECO school experiences?

Analysis. Research Sub-Questions #8a and 8b were analyzed using independent t tests to examine the significance of the difference between 9th-grade CAPS students' total year 9th-grade absences and tardies compared to 9th-grade AECO students' total year 9th-grade absences and tardies. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations were displayed on tables.

Overarching Posttest-Posttest Engagement Research Question #9. Did those 9th-grade students who participated in the CAPS program have observed participation frequencies in athletic, co-curricular, and extra-curricular activities that are the same as for those 9th-grade students who participated in AECO?

Sub-Question 9a. Were lose, maintain, or improve observed participation frequencies in athletic activities the same for 9th-grade students who participated in CAPS and AECO school experiences?

Sub-Question 9b. Were lose, maintain, or improve observed participation frequencies in co-curricular activities the same for 9th-grade students who participated in CAPS and AECO school experiences?

Sub-Question 9c. Were lose, maintain, or improve observed participation frequencies in extra-curricular activities the same for 9th-grade students who participated in CAPS and AECO school experiences?

Analysis. Research Sub-Questions #9a, 9b, and 9c utilize a chi-square test of significance to compare observed versus expected lose, maintain, or improve engagement frequencies for 9th-grade students who participated in the CAPS and AECO programs. A .01 alpha level was employed to help control for Type I errors. Frequencies and percents were displayed on tables.

Data Collection Procedures

Permission from the appropriate school research personnel was obtained before data were collected. All study data were retrospective, archival, and routinely collected for school records. Information from a random sample of CAPS participants and AECO participants included achievement, behavior, and engagement data. Non-coded numbers were used to display individual anonymous achievement, behavior, and engagement data. Data, descriptive statistics, and inferential analyses were utilized and reported.

Performance site. This research was conducted in the public school setting through normal educational practices. The study procedures did not interfere in any way with the normal educational practices of the public school and did not involve coercion or discomfort of any kind. All data was analyzed and kept secure in the researcher's office. Data was stored on spreadsheets and a flash drive for statistical analysis and was kept in a locked cabinet. No individual identifiers were attached to the data once the data were linked.

Human Subjects Approval Category

The exemption category for this study was category 2 45CFR46.101(b)2.

Achievement data and behavior data were analyzed. The ITBS is used routinely by all public schools within the Omaha metropolitan area to provide an in-depth assessment of student achievement in the fall of each academic year. Parents and teachers use the report of scores to assess individual student progress in basic skills at each grade level. The information collected from this achievement testing was used by the district to evaluate consistency of instruction for a comparative analysis among schools within the district. Attendance and tardy data was routinely collected for all students as a measure to evaluate behavior. Therefore, all safeguards for human subjects were preserved and the review of achievement and behavior data did not present a potential risk for human subjects.

CHAPTER FOUR

Results

Purpose of the Study

The purpose of this study was to determine the effect of a Career, Academic, Personal, and Social (CAPS) high school transition program option on 9th-grade students' achievement, behavior, and engagement.

The study's three dependent variables were (1) achievement, (2) behavior, and (3) engagement. The first of these, achievement, was analyzed using the following dependent measures: (a) students' total reading, English, math, and science NRT pretest scores from ACT's EXPLORE assessment, (b) students' total reading, English, math, and science NRT posttest scores from ACT's PLAN assessment, (c) students' 8th-grade pretest spring semester core course English, math, science, and social studies grades, and (d) student's 9th-grade posttest spring semester core course English, math, science, and social studies grades. The second dependent variable, behavior, was analyzed using the following measures: (a) student's 8th-grade pretest total year attendance and tardy frequencies, and (b) student's 9th-grade posttest total year attendance and tardy frequencies. The final dependent variable, engagement, was analyzed using students' reported 9th-grade posttest only participation frequencies in (a) athletic, (b) co-curricular, and (c) extra-curricular activities. All study achievement data related to each of the dependent variables were retrospective, archival, and routinely collected school information. Permission from the appropriate school research personnel was obtained before data were collected and analyzed.

Table 1 displays demographic information of individual 9th-grade students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program. Table 2 displays demographic information of individual 9th-grade students who completed the Academic/Elective Course Option (AECO) program. The following eight tables display achievement data analyzed in response to research questions 1 through 4.

Table 3 displays EXPLORE pretest and PLAN posttest reading scores converted to standard scores with a standard deviation equal to fifteen and a mean equal to one hundred for individual 9th-grade students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program. Table 4 displays EXPLORE pretest and PLAN posttest English scores converted to standard scores with a standard deviation equal to fifteen and a mean equal to one hundred for individual 9th-grade students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program. EXPLORE pretest and PLAN posttest math scores converted to standard scores for individual 9th-grade students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program were displayed in Table 5 while EXPLORE pretest and PLAN posttest science scores converted to standard scores for individual 9th-grade students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program were displayed in Table 6.

EXPLORE pretest and PLAN posttest reading scores converted to standard scores for individual 9th-grade students who completed the Academic/Elective Course Option (AECO) program are displayed in Table 7. Table 8 displays EXPLORE pretest and PLAN posttest English scores converted to standard scores for individual 9th-grade

students who completed the Academic/Elective Course Option (AECO) program. EXPLORE pretest and PLAN posttest math scores converted to standard scores for individual 9th-grade students who completed the Academic/Elective Course Option (AECO) program were displayed in Table 9 while EXPLORE pretest and PLAN posttest science scores converted to standard scores for individual 9th-grade students who completed the Academic/Elective Course Option (AECO) program are displayed in Table 10.

Research Question #1

Table 11 displays ending 8th-grade pretest EXPLORE compared to beginning 10th-grade posttest PLAN standard scores for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program during 9th-grade. The first pretest-posttest hypothesis was tested using the dependent t test. As seen in Table 11 null hypotheses were rejected for the four measured achievement subtests reading, English, math, and science in the direction of lower posttest scores. The pretest reading score ($M = 105.50$, $SD = 5.80$) compared to the posttest reading score ($M = 100.53$, $SD = 4.74$) was statistically significantly different, $t(29) = -4.94$, $p = .001$ (one-tailed), $d = .94$. The pretest English score ($M = 105.27$, $SD = 6.63$) compared to the posttest English score ($M = 98.97$, $SD = 4.06$) was statistically significantly different, $t(29) = -6.78$, $p = .001$ (one-tailed), $d = 1.18$. The pretest math score ($M = 105.73$, $SD = 3.99$) compared to the posttest math score ($M = 100.73$, $SD = 3.96$) was statistically significantly different, $t(29) = -5.74$, $p = .001$ (one-tailed), $d = 1.26$. The pretest science score ($M = 107.83$, $SD = 4.44$) compared to the posttest science score ($M = 101.60$, $SD =$

4.33) was statistically significantly different, $t(29) = -9.02$, $p = .001$ (one-tailed), $d = 1.42$.

Research Question #2

Table 12 displays ending 8th-grade pretest EXPLORE compared to beginning 10th-grade posttest PLAN standard scores for students who completed the Academic/Elective Course Option (AECO) high school transition program during 9th-grade. The second pretest-posttest hypothesis was tested using the dependent t test. As seen in Table 12 null hypotheses were rejected for the four measured achievement subtests reading, English, math, and science in the direction of lower posttest scores. The pretest reading score ($M = 108.47$, $SD = 7.36$) compared to the posttest reading score ($M = 105.17$, $SD = 7.00$) was statistically significantly different, $t(29) = -3.62$, $p = .001$ (one-tailed), $d = .45$. The pretest English score ($M = 109.40$, $SD = 7.96$) compared to the posttest English score ($M = 103.43$, $SD = 6.56$) was statistically significantly different, $t(29) = -6.71$, $p = .001$ (one-tailed), $d = .82$. The pretest math score ($M = 109.43$, $SD = 6.71$) compared to the posttest math score ($M = 104.03$, $SD = 6.59$) was statistically significantly different, $t(29) = -7.85$, $p = .001$ (one-tailed), $d = .81$. The pretest science score ($M = 111.27$, $SD = 5.73$) compared to the posttest science score ($M = 104.93$, $SD = 6.55$) was statistically significantly different, $t(29) = -7.22$, $p = .001$ (one-tailed), $d = 1.03$.

Research Question #3

Table 13 displays an analysis of covariance comparison of beginning 10th-grade posttest PLAN standard scores for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program during 9th-grade compared

to beginning 10th-grade posttest PLAN standard scores for students who completed the Academic/Elective Course Option (AECO) program during 9th-grade, adjusted for 8th-grade pretreatment differences.

The third hypothesis was tested using Analysis of Covariance (ANCOVA) with pretest scores serving as the covariate. As seen in Table 13 ANCOVA comparison of CAPS and AECO students' beginning 10th-grade posttest PLAN reading, English, math, and science converted standard scores adjusted for ending 8th-grade pretreatment differences are displayed. The null hypothesis was not rejected for the variables (a) 10th-grade posttest CAPS vs. AECO x reading $F(1, 57) = 5.703, p = .020$, (b) 10th-grade posttest CAPS vs. AECO x English $F(1, 57) = 4.822, p = .032$, (c) 10th-grade posttest CAPS vs. AECO x math $F(1, 57) = 0.518, p = .474$, and (d) 10th-grade posttest CAPS vs. AECO x science $F(1, 57) = 0.532, p = .469$ where an alpha level of .01 was set as the threshold for statistical significance.

Data found in Tables 14 and 15 were used for analysis of research question 4. Table 14 displays Career, Academic, Personal, and Social (CAPS) high school transition program students' beginning 10th-grade posttest PLAN reading, English, math, and science scores observed at, above, or below the ACT college readiness benchmarks (ACT, 2005). Table 15 displays Academic/Elective Course Option (AECO) program students' beginning 10th-grade posttest PLAN reading, English, math, and science scores observed at, above, or below the ACT college readiness benchmarks.

The analyses of research question 4 are displayed in Tables 16 through 19. Table 16 displays the frequency and percent of Career, Academic, Personal, and Social (CAPS) high school transition program students' compared to Academic/Elective Course Option

(AECO) program students' beginning 10th-grade posttest PLAN reading scores observed at/above, or below the ACT college readiness benchmarks. Table 17 displays the frequency and percent of Career, Academic, Personal, and Social (CAPS) high school transition program students' compared to Academic/Elective Course Option (AECO) program students' beginning 10th-grade posttest PLAN English scores observed at/above, or below the ACT college readiness benchmarks. The frequency and percent of Career, Academic, Personal, and Social (CAPS) high school transition program students' compared to Academic/Elective Course Option (AECO) program students' beginning 10th-grade posttest PLAN math scores observed at/above, or below the ACT college readiness benchmarks are displayed in Table 18; and the frequency and percent of Career, Academic, Personal, and Social (CAPS) high school transition program students' compared to Academic/Elective Course Option (AECO) program students' beginning 10th-grade posttest PLAN science scores observed at/above, or below the ACT college readiness benchmarks are displayed in Table 19.

Research Question #4

The fourth hypothesis sub-question 4a was tested using chi-square (X^2). The results of X^2 displayed in Table 16 for the CAPS and AECO posttest comparison of college readiness reading benchmark scores were not statistically different ($X^2(1, N = 60) = 4.66, ns$) so the null hypothesis of no difference or congruence for the CAPS and AECO posttest comparison of college readiness reading benchmark scores was not rejected.

The fourth hypothesis sub-question 4b was tested using chi-square (X^2). The results of X^2 displayed in Table 17 for the CAPS and AECO posttest comparison of

college English benchmark scores were statistically different ($X^2(1, N = 60) = 11.26, p < .001$) so the null hypothesis of no difference or congruence for the CAPS and AECO posttest comparison of college readiness English benchmark scores was rejected.

The fourth hypothesis sub-question 4c was tested using chi-square (X^2). The results of X^2 displayed in Table 18 for the CAPS and AECO posttest comparison of college readiness math benchmark scores were not statistically different ($X^2(1, N = 60) = 4.66, ns$) so the null hypothesis of no difference or congruence for the CAPS and AECO posttest comparison of college readiness math benchmark scores was not rejected.

The fourth hypothesis sub-question 4d was tested using chi-square (X^2). The results of X^2 displayed in Table 19 for the CAPS and AECO posttest comparison of college science benchmark scores were statistically different ($X^2(1, N = 60) = 20.26, p < .001$) so the null hypothesis of no difference or congruence for the CAPS and AECO posttest comparison of college readiness science benchmark scores was rejected.

Tables 20 and 21 display core course grade data analyzed in response to research questions 5 through 7. Table 20 displays second-semester 8th-grade pretest and second-semester 9th-grade posttest English, math, science, and social studies course grades for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program. Table 21 displays second-semester 8th-grade pretest and second-semester 9th-grade posttest English, math, science, and social studies course grades for students who completed the Academic/Elective Course Option (AECO) Program.

Tables 22 through 24 display data related to the analyses of research Questions 5 through 7, respectively.

Research Question #5

Table 22 displays second-semester 8th-grade pretest English, math, science, and social studies course grades compared to second-semester 9th-grade posttest English, math, science, and social studies course grades for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program during 9th-grade. The fifth pretest-posttest hypothesis was tested using the dependent t test. As seen in Table 22 null hypotheses were not rejected for the four course grade comparisons English, math, science, and social studies in the direction of lower posttest grades for English and math, in the direction of higher posttest grades for science, and equivalent posttest grades for social studies. The pretest English grades ($M = 2.97$, $SD = 0.88$) compared to the posttest English grades ($M = 2.93$, $SD = 0.83$) were not statistically significantly different, $t(29) = -0.20$, $p = .42$ (one-tailed), $d = .05$. The pretest math grades ($M = 2.80$, $SD = 1.06$) compared to the posttest math grades ($M = 2.47$, $SD = 1.30$) were not statistically significantly different, $t(29) = -1.35$, $p = .09$ (one-tailed), $d = .27$. The pretest science grades ($M = 2.77$, $SD = 1.00$) compared to the posttest science grades ($M = 2.87$, $SD = 1.16$) were not statistically significantly different, $t(29) = 0.65$, $p = .26$ (one-tailed), $d = .09$. The pretest social studies grades ($M = 3.23$, $SD = 0.93$) compared to the posttest social studies grades ($M = 3.23$, $SD = 0.86$) were not statistically significantly different, $t(29) = 0.00$, $p = .50$ (one-tailed), $d = .00$.

Research Question #6

Table 23 displays second-semester 8th-grade pretest English, math, science, and social studies course grades compared to second-semester 9th-grade posttest English, math, science, and social studies course grades for students who completed the

Academic/Elective Course Option (AECO) high school transition program during 9th-grade. The sixth pretest-posttest hypothesis was tested using the dependent t test. As seen in Table 23, null hypotheses were rejected for one of the four course grade comparisons, English, and not rejected three of the four course grade comparisons math, science, and social studies in the direction of lower posttest grades for English and math and in the direction of higher posttest grades for science and social studies. The pretest English grades ($M = 3.47$, $SD = 0.50$) compared to the posttest English grades ($M = 3.13$, $SD = 0.67$) were statistically significantly different, $t(29) = -2.41$, $p = .01$ (one-tailed), $d = .57$. The pretest math grades ($M = 3.20$, $SD = 0.95$) compared to the posttest math grades ($M = 2.80$, $SD = 1.09$) were not statistically significantly different, $t(29) = -2.18$, $p = .05$ (one-tailed), $d = .39$. The pretest science grades ($M = 3.20$, $SD = 0.84$) compared to the posttest science grades ($M = 3.23$, $SD = 0.67$) were not statistically significantly different, $t(29) = 0.27$, $p = .39$ (one-tailed), $d = .03$. The pretest social studies grades ($M = 3.43$, $SD = 0.72$) compared to the posttest social studies grades ($M = 3.60$, $SD = 0.56$) were not statistically significantly different, $t(29) = 1.31$, $p = .10$ (one-tailed), $d = .26$.

Research Question #7

The seventh posttest-posttest hypothesis was tested using an independent t test. Second-semester course grades for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program during 9th-grade compared to second-semester course grades for students who completed the Academic/Elective Course Option (AECO) program during 9th-grade were displayed in Table 24. The null hypothesis was not rejected for the four measured course grades (a) English, (b) math, (c) science, and (d) social studies. As indicated in Table 24, the posttest English course

grades for students who participated in CAPS ($M = 2.93$, $SD = 0.83$) compared to the posttest English course grades for students who participated in AECO ($M = 3.13$, $SD = 0.67$) was not statistically significantly different, $t(58) = -1.02$, $p = .16$ (one-tailed), $d = .26$. The posttest math course grades for students who participated in CAPS ($M = 2.47$, $SD = 1.30$) compared to the posttest math course grades for students who participated in AECO ($M = 2.80$, $SD = 1.09$) was not statistically significantly different, $t(58) = -1.07$, $p = .14$ (one-tailed), $d = .27$. The posttest science course grades for students who participated in CAPS ($M = 2.87$, $SD = 1.16$) compared to the posttest science course grades for students who participated in AECO ($M = 3.23$, $SD = 0.67$) was not statistically significantly different, $t(58) = -1.49$, $p = .07$ (one-tailed), $d = .39$. The posttest social studies course grades for students who participated in CAPS ($M = 3.23$, $SD = 0.86$) compared to the posttest social studies course grades for students who participated in AECO ($M = 3.60$, $SD = 0.56$) was not statistically significantly different, $t(58) = -1.96$, $p = .03$ (one-tailed), $d = .52$.

Research Question #8

The eighth posttest-posttest hypothesis was tested using an independent t test. Table 25 displays total year absence and tardy frequencies for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program during 9th-grade and the Academic/Elective Course Option (AECO) program during 9th-grade. Table 26 displays total year absence and tardy frequencies for students who completed the Career, Academic, Personal, and Social (CAPS) high school transition program during 9th-grade compared to total year absence and tardy frequencies for

students who completed the Academic/Elective Course Option (AECO) program during 9th-grade.

The null hypothesis was not rejected for both measures of behavior (a) attendance and (b) tardies. As indicated in Table 26, the posttest number of absences for students who participated in CAPS ($M = 6.87$, $SD = 5.13$) compared to the posttest number of absences for students who participated in AECO ($M = 6.00$, $SD = 5.15$) was not statistically significantly different, $t(58) = .65$, $p = .26$ (one-tailed), $d = .26$. The posttest number of tardies for students who participated in CAPS ($M = 6.53$, $SD = 7.06$) compared to the posttest number of tardies for students who participated in AECO ($M = 4.40$, $SD = 5.36$) was not statistically significantly different, $t(58) = 1.32$, $p = .10$ (one-tailed), $d = .27$.

Research Question #9

Table 27 contains data pertaining to the final research question in this study. The data displayed represents an analysis of the frequency and percent of Career, Academic, Personal, and Social (CAPS) high school transition program students' compared to Academic/Elective Course Option (AECO) program students' total athletic, co-curricular, and extra-curricular activity engagement and was analyzed using chi-square (X^2). The results of X^2 displayed in Table 27 for the CAPS and AECO posttest comparison of engagement as measured by athletic, co-curricular, and extra-curricular activity participation were not statistically different ($X^2(2, N = 116) = 8.34$, ns) so the null hypothesis of no difference or congruence for the CAPS and AECO posttest comparison of engagement was not rejected.

Table 1

Demographic Information of Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program

Student Number	Gender	Ethnicity	Free or Reduced Price Lunch Program	Special Education
1.	Male	Caucasian	No	No
2.	Male	Hispanic	Yes	No
3.	Female	Caucasian	No	No
4.	Female	Caucasian	No	No
5.	Male	Hispanic	Yes	No
6.	Male	Caucasian	No	No
7.	Male	Hispanic	No	No
8.	Male	Caucasian	Yes	No
9.	Female	Caucasian	Yes	No
10.	Female	Caucasian	No	No
11.	Female	Caucasian	No	No
12.	Male	Caucasian	Yes	No
13.	Female	Caucasian	No	No
14.	Male	Caucasian	No	No
15.	Female	Caucasian	No	No
16.	Female	Caucasian	Yes	No
17.	Female	Caucasian	No	No
18.	Male	Hispanic	Yes	No
19.	Female	Caucasian	No	No
20.	Male	Caucasian	No	No
21.	Female	Caucasian	No	No
22.	Female	Caucasian	No	No
23.	Male	Caucasian	No	No
24.	Female	Caucasian	No	No
25.	Male	Caucasian	No	No
26.	Male	Caucasian	No	No
27.	Male	Caucasian	No	No
28.	Male	Caucasian	No	No
29.	Male	Caucasian	No	No
30.	Female	Caucasian	Yes	No

Note. All students were in attendance in the research school district 7th-grade through 9th-grade.

Table 2

Demographic Information of Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program

Student Number	Gender	Ethnicity	Free or Reduced Price Lunch Program	Special Education
1.	Male	Hispanic	Yes	No
2.	Female	Caucasian	Yes	No
3.	Male	Caucasian	No	No
4.	Female	Caucasian	No	No
5.	Female	Caucasian	No	No
6.	Male	Caucasian	No	No
7.	Male	Caucasian	No	No
8.	Male	Caucasian	No	No
9.	Female	Caucasian	No	No
10.	Female	Asian	Yes	No
11.	Female	Caucasian	No	No
12.	Male	Caucasian	Yes	No
13.	Female	Caucasian	No	No
14.	Male	Caucasian	No	No
15.	Female	Caucasian	No	No
16.	Male	Caucasian	Yes	No
17.	Female	Caucasian	No	No
18.	Female	Caucasian	No	No
19.	Male	Caucasian	Yes	No
20.	Male	Caucasian	No	No
21.	Male	Caucasian	No	No
22.	Male	Caucasian	No	No
23.	Female	Caucasian	No	No
24.	Female	Caucasian	No	No
25.	Female	Asian	No	No
26.	Female	Caucasian	No	No
27.	Male	Asian	Yes	No
28.	Male	Caucasian	No	No
29.	Female	Caucasian	No	No
30.	Female	Caucasian	No	No

Note. All students were in attendance in the research school district 7th-grade through 9th-grade.

Table 3

EXPLORE Pretest and PLAN Posttest Reading Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	14	102	16	99
2.	15	104	12	93
3.	15	104	16	99
4.	14	102	11	91
5.	12	98	19	104
6.	17	108	18	102
7.	15	104	16	99
8.	14	102	17	101
9.	17	108	13	94
10.	18	110	17	101
11.	15	104	16	99
12.	15	104	15	98
13.	23	121	19	104
14.	12	98	14	96
15.	17	108	18	102
16.	14	102	18	102
17.	17	108	25	114
18.	12	98	16	99
19.	20	115	21	107
20.	17	108	19	104
21.	14	102	15	98
22.	14	102	20	106
23.	15	104	18	102
24.	17	108	15	98
25.	15	104	15	98
26.	12	98	13	94
27.	16	106	17	101
28.	23	121	20	106
29.	18	110	20	106
30.	14	102	16	99

Note. Student numbers correspond with Table 1.

Table 4

EXPLORE Pretest and PLAN Posttest English Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	16	106	18	102
2.	13	100	12	93
3.	15	104	15	98
4.	10	94	12	93
5.	13	100	15	98
6.	17	108	18	102
7.	17	108	16	99
8.	12	98	16	99
9.	13	100	14	96
10.	15	104	14	96
11.	18	110	18	102
12.	12	98	16	99
13.	18	110	21	107
14.	13	100	15	98
15.	17	108	16	99
16.	17	108	18	102
17.	19	112	19	104
18.	17	108	13	94
19.	25	125	19	104
20.	21	117	20	106
21.	17	108	17	101
22.	15	104	12	93
23.	13	100	13	94
24.	17	108	13	94
25.	17	108	17	101
26.	9	92	14	96
27.	17	108	18	102
28.	13	100	16	99
29.	17	108	19	104
30.	15	104	13	94

Note. Student numbers correspond with Table 1.

Table 5

EXPLORE Pretest and PLAN Posttest Math Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	15	104	17	101
2.	16	106	15	98
3.	12	98	17	101
4.	13	100	13	94
5.	12	98	17	101
6.	17	108	16	99
7.	14	102	16	99
8.	17	108	17	101
9.	18	110	15	98
10.	18	110	15	98
11.	18	110	16	99
12.	17	108	18	102
13.	18	110	14	96
14.	16	106	19	104
15.	16	106	19	104
16.	17	108	22	109
17.	14	102	15	98
18.	14	102	17	101
19.	17	108	21	107
20.	18	110	23	111
21.	18	110	16	99
22.	16	106	14	96
23.	15	104	20	106
24.	15	104	15	98
25.	15	104	15	98
26.	15	104	15	98
27.	16	106	17	101
28.	18	110	17	101
29.	19	112	20	106
30.	12	98	15	98

Note. Student numbers correspond with Table 1.

Table 6

EXPLORE Pretest and PLAN Posttest Science Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	18	110	17	101
2.	16	106	15	98
3.	13	100	16	99
4.	15	104	15	98
5.	16	106	13	94
6.	18	110	17	101
7.	16	106	18	102
8.	17	108	16	99
9.	17	108	18	102
10.	18	110	16	99
11.	17	108	18	102
12.	17	108	19	104
13.	15	104	18	102
14.	17	108	17	101
15.	17	108	19	104
16.	19	112	20	106
17.	18	110	15	98
18.	14	102	19	104
19.	18	110	21	107
20.	19	112	24	112
21.	16	106	16	99
22.	16	106	16	99
23.	16	106	18	104
24.	18	110	15	98
25.	17	108	17	101
26.	13	100	14	96
27.	17	108	20	106
28.	18	110	16	99
29.	25	125	25	114
30.	16	106	16	99

Note. Student numbers correspond with Table 1.

Table 7

EXPLORE Pretest and PLAN Posttest Reading Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	11	96	13	94
2.	12	98	12	93
3.	16	106	14	96
4.	14	102	15	98
5.	15	104	21	107
6.	21	117	21	107
7.	17	108	19	104
8.	15	104	15	98
9.	25	125	26	115
10.	18	110	20	106
11.	21	117	22	109
12.	12	98	17	101
13.	18	110	23	111
14.	20	115	20	106
15.	15	104	15	98
16.	14	102	19	104
17.	23	121	22	109
18.	17	108	21	107
19.	16	106	14	96
20.	23	121	30	122
21.	21	117	27	117
22.	17	108	19	104
23.	21	117	26	115
24.	15	104	18	102
25.	18	110	17	101
26.	14	102	21	107
27.	17	108	25	114
28.	17	108	19	104
29.	14	102	19	104
30.	16	106	20	106

Note. Student numbers correspond with Table 2.

Table 8

EXPLORE Pretest and PLAN Posttest English Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	13	100	13	94
2.	13	100	17	101
3.	18	110	18	102
4.	13	100	14	96
5.	20	115	20	106
6.	21	117	21	107
7.	16	106	18	102
8.	12	98	16	99
9.	25	125	30	122
10.	20	115	17	101
11.	16	106	18	102
12.	12	98	11	91
13.	20	115	21	107
14.	15	104	17	101
15.	16	106	16	99
16.	15	104	14	96
17.	21	117	20	106
18.	17	108	16	99
19.	16	106	17	101
20.	25	125	24	112
21.	25	125	27	117
22.	21	117	18	102
23.	22	119	22	109
24.	18	110	15	98
25.	15	104	20	106
26.	15	104	18	102
27.	17	108	23	111
28.	17	108	22	109
29.	18	110	19	104
30.	14	102	17	101

Note. Student numbers correspond with Table 2.

Table 9

EXPLORE Pretest and PLAN Posttest Math Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	15	104	17	101
2.	14	102	16	99
3.	18	110	17	101
4.	18	110	17	101
5.	17	108	17	101
6.	17	108	16	99
7.	15	104	18	102
8.	23	121	22	109
9.	25	125	30	122
10.	25	125	26	115
11.	18	110	19	104
12.	15	104	18	102
13.	15	104	15	98
14.	16	106	15	98
15.	15	104	17	101
16.	15	104	14	96
17.	16	106	18	102
18.	18	110	18	102
19.	17	108	17	101
20.	23	121	28	119
21.	19	112	24	112
22.	19	112	19	104
23.	18	110	19	104
24.	14	102	19	104
25.	15	104	21	107
26.	15	104	16	99
27.	23	121	27	117
28.	19	112	16	99
29.	16	106	17	101
30.	16	106	17	101

Note. Student numbers correspond with Table 2.

Table 10

EXPLORE Pretest and PLAN Posttest Science Scores Converted to Standard Scores with a Standard Deviation of Fifteen and a Mean of One Hundred for Individual 9th-Grade Students Who Completed the Academic/Elective Course Option (AECO) Program

	EXPLORE Pretest Reading		PLAN Posttest Reading	
	EXPLORE Score	Standard Score	PLAN Score	Standard Score
1.	15	104	19	104
2.	15	104	16	99
3.	17	108	18	102
4.	17	108	15	98
5.	19	112	21	107
6.	18	110	19	104
7.	18	110	16	99
8.	20	115	20	106
9.	25	125	25	114
10.	20	115	21	107
11.	17	108	18	102
12.	17	108	16	99
13.	19	112	16	99
14.	19	112	19	104
15.	17	108	16	99
16.	15	104	16	99
17.	18	110	23	111
18.	18	110	18	102
19.	21	117	19	104
20.	22	119	31	124
21.	25	125	27	117
22.	19	112	21	107
23.	22	119	21	107
24.	18	110	13	94
25.	17	108	21	107
26.	17	108	20	106
27.	22	119	27	117
28.	16	106	16	99
29.	17	108	21	107
30.	15	104	19	104

Note. Student numbers correspond with Table 2.

Table 11

Ending 8th-Grade Pretest EXPLORE Compared to Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade

Source	Pretest EXPLORE Scores		Posttest PLAN Scores		<i>d</i>	<i>t</i> ^a	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Reading	105.50	(5.80)	100.53	(4.74)	.94	-4.94	.001***
English	105.27	(6.63)	98.97	(4.06)	1.18	-6.78	.001***
Math	105.73	(3.99)	100.73	(3.96)	1.26	-5.74	.001***
Science	107.83	(4.44)	101.60	(4.33)	1.42	-9.02	.001***

Note. Because the EXPLORE and PLAN have different score ranges and, therefore, cannot be directly compared statistically, scores were converted to standard scores with a Mean = 100 and a *SD* = 15. The EXPLORE and PLAN scores and standard score conversions for each student are found in Tables 3 through 6.

^aNegative *t* result is in the direction of lower posttest PLAN reading, English, math, and science standard scores.

****p* < .0001.

Table 12

Ending 8th-Grade Pretest EXPLORE Compared to Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade

Source	Pretest EXPLORE Scores		Posttest PLAN Scores		<i>d</i>	<i>t</i> ^a	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Reading	108.47	(7.36)	105.17	(7.00)	.45	-3.62	.001***
English	109.40	(7.96)	103.43	(6.56)	.82	-6.71	.001***
Math	109.43	(6.71)	104.03	(6.59)	.81	-7.85	.001***
Science	111.27	(5.73)	104.93	(6.55)	1.03	-7.22	.001***

Note. Because the EXPLORE and PLAN have different score ranges and cannot be directly compared statistically, scores were converted to standard scores with a Mean = 100 and a *SD* = 15. The EXPLORE and PLAN scores and standard score conversions for each student are found in Tables 7 through 10.

^aNegative *t* result is in the direction of lower posttest PLAN reading, English, math, and science standard scores.

****p* < .0001.

Table 13

Analysis Of Covariance Comparison of Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Career, Academic, Personal, and Social Growth High School Transition Program (CAPS) During 9th-Grade Compared to Beginning 10th-Grade Posttest PLAN Standard Scores for Students Who Completed the Academic/Elective Course Option Program (AECO) During 9th-Grade, Adjusted for 8th-Grade Pretreatment Differences

Variable	<i>F</i>	<i>df</i>	<i>p</i>
Posttest CAPS vs. AECO x Reading	5.703	(1, 57)	.020 ^{at}
Posttest CAPS vs. AECO x English	4.822	(1, 57)	.032 ^{at}
Posttest CAPS vs. AECO x Math	0.518	(1, 57)	.474 [†]
Posttest CAPS vs. AECO x Science	0.532	(1, 57)	.469 [†]

Note. Confidence interval for difference = 95% with adjustment for multiple comparisons.

^aAn alpha level of .01, was set as the threshold for statistical significance for this research question.

[†]*ns.*

Table 14

*Career, Academic, Personal, and Social (CAPS) High School Transition Program
Students' Beginning 10th-Grade Posttest PLAN Reading, English, Math, and Science
Scores Observed At, Above, or Below the ACT College Readiness Benchmarks*

CAPS Students				
	Reading Score/ Benchmark 17	English Score/ Benchmark 15	Math Score/ Benchmark 19	Science Score/ Benchmark 21
1.	16/<	18/>	17/<	17/<
2.	12/<	12/<	15/<	15/<
3.	16/<	15/=	17/<	16/<
4.	11/<	12/<	13/<	15/<
5.	19/>	15/=	17/<	13/<
6.	18/>	18/>	16/<	17/<
7.	16/<	16/>	16/<	18/<
8.	17/=	16/>	17/<	16/<
9.	13/<	14/<	15/<	18/<
10.	17/=	14/<	15/<	16/<
11.	16/<	18/>	16/<	18/<
12.	15/<	16/>	18/<	19/<
13.	19/>	21/>	14/<	18/<
14.	14/<	15/=	19/=	17/<
15.	18/>	16/>	19/=	19/<
16.	18/>	18/>	22/>	20/<
17.	25/>	19/>	15/<	15/<
18.	16/<	13/<	17/<	19/<
19.	21/>	19/>	21/>	21/=
20.	19/>	20/>	23/>	24/>
21.	15/<	17/>	16/<	16/<
22.	20/>	12/<	14/<	16/<
23.	18/>	13/<	20/>	18/<
24.	15/<	13/<	15/<	15/<
25.	15/<	17/>	15/<	17/<
26.	13/<	14/<	15/<	14/<
27.	17/=	18/>	17/<	20/<
28.	20/>	16/>	17/<	16/<
29.	20/>	19/>	20/>	25/>
30.	16/<	13/<	15/<	16/<

Note. Student numbers correspond with Table 1.

Table 15

Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Reading, English, Math, and Science Scores Observed At, Above, or Below the ACT College Readiness Benchmarks

AECO Students				
	Reading Score/ Benchmark 17	English Score/ Benchmark 15	Math Score/ Benchmark 19	Science Score/ Benchmark 21
1.	13/<	13/>	17/<	19/<
2.	12/<	17/<	16/<	16/<
3.	14/<	18/>	17/<	18/<
4.	15/<	14/<	17/<	15/<
5.	21/>	20/>	17/<	21/=
6.	21/>	21/>	16/<	19/<
7.	19/>	18/>	18/<	16/<
8.	15/<	16/>	22/>	20/<
9.	26/>	30/>	30/>	25/>
10.	20/>	17/>	26/>	21/=
11.	22/>	18/>	19/=	18/<
12.	17/=	11/<	18/<	16/<
13.	23/>	21/>	15/<	16/<
14.	20/>	17/>	15/<	19/<
15.	15/<	16/>	17/<	16/<
16.	19/>	14/<	14/<	16/<
17.	22/>	20/>	18/<	23/>
18.	21/>	16/>	18/<	18/<
19.	14/<	17/>	17/<	19/<
20.	30/>	24/>	28/>	31/>
21.	27/>	27/>	24/>	27/>
22.	19/>	18/>	19/=	21/=
23.	26/>	22/>	19/=	21/=
24.	18/>	15/=	19/=	13/<
25.	17/=	20/>	21/>	21/=
26.	21/>	18/>	16/<	20/<
27.	25/>	23/>	27/>	27/>
28.	19/>	22/>	16/<	16/<
29.	19/>	19/>	17/<	21/=
30.	20/>	17/>	17/<	19/<

Note. Student numbers correspond with Table 2.

Table 16

Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Reading Scores Observed At/Above, or Below the ACT College Readiness Benchmarks

College Readiness Reading Benchmarks	Posttest-Posttest Reading Comparison				χ^2
	CAPS Students' PLAN Scores		AECO Students' PLAN Scores		
	<i>N</i>	%	<i>N</i>	%	
At/Above (17 or >)	19	(63)	23	(77)	
Below (16 or <)	11	(37)	7	(23)	
Totals	30	(100)	30	(100)	4.66 ^{at}

Note. See Tables 14 and 15 for students' PLAN scores.

^aObserved versus expected cell percents used for calculation with $df = 1$ and a tabled value = 6.635 required to obtain an alpha level of .01, the threshold for statistical significance for this research question.

[†]*ns.*

Table 17

Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN English Scores Observed At/Above, or Below the ACT College Readiness Benchmarks

College Readiness English Benchmarks	Posttest-Posttest English Comparison				X^2
	CAPS Students' PLAN Scores		AECO Students' PLAN Scores		
	<i>N</i>	%	<i>N</i>	%	
At/Above (15 or >)	20	(67)	26	(87)	
Below (14 or <)	10	(33)	4	(13)	
Totals	30	(100)	30	(100)	11.26 ^{a***}

Note. See Tables 14 and 15 for students' PLAN scores.

^aObserved verses expected cell percents used for calculation with $df=1$ and a tabled value = 6.635 required to obtain an alpha level of .01, the threshold for statistical significance for this research question.

*** $p < .001$.

Table 18

Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Math Scores Observed At/Above, or Below the ACT College Readiness Benchmarks

College Readiness Math Benchmarks	Posttest-Posttest Math Comparison				χ^2
	CAPS Students' PLAN Scores		AECO Students' PLAN Scores		
	<i>N</i>	%	<i>N</i>	%	
At/Above (19 or >)	7	(23)	11	(37)	
Below (18 or <)	23	(77)	19	(63)	
Totals	30	(100)	30	(100)	4.66 ^{at}

Note. See Tables 14 and 15 for students' PLAN scores.

^aObserved verses expected cell percents used for calculation with $df=1$ and a tabled value = 6.635 required to obtain an alpha level of .01, the threshold for statistical significance for this research question.

[†]*ns.*

Table 19

Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Beginning 10th-Grade Posttest PLAN Science Scores Observed At/Above, or Below the ACT College Readiness Benchmarks

College Readiness Science Benchmarks	Posttest-Posttest Science Comparison				X^2
	CAPS Students' PLAN Scores		AECO Students' PLAN Scores		
	<i>N</i>	%	<i>N</i>	%	
At/Above (21 or >)	3	(10)	11	(37)	
Below (20 or <)	27	(90)	19	(63)	
Totals	30	(100)	30	(100)	20.26 ^{***}

Note. See Tables 14 and 15 for students' PLAN scores.

^aObserved verses expected cell percents used for calculation with $df = 1$ and a tabled value = 6.635 required to obtain an alpha level of .01, the threshold for statistical significance for this research question.

*** $p < .001$.

Table 20

Second-Semester 8th-Grade Pretest and Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program

	CAPS Students			
	English Pretest/Posttest	Math Pretest/Posttest	Science Pretest/Posttest	Social Studies Pretest/Posttest
1.	4/4	3/4	3/4	4/4
2.	4/4	3/0	2/2	1/1
3.	2/2	2/1	3/2	3/4
4.	3/3	2/4	3/3	3/3
5.	2/4	2/1	2/2	3/2
6.	3/2	2/2	3/4	4/3
7.	4/3	2/4	2/1	3/3
8.	3/3	0/2	3/2	3/3
9.	2/3	0/2	1/0	1/3
10.	2/3	3/3	2/2	3/4
11.	3/3	4/2	4/4	4/4
12.	3/4	4/3	3/4	4/3
13.	4/3	4/3	4/3	4/3
14.	4/3	4/3	2/3	2/2
15.	2/2	4/4	4/4	4/4
16.	4/4	4/4	4/4	3/4
17.	4/3	3/3	4/4	4/4
18.	4/4	2/0	0/1	3/2
19.	1/2	3/4	4/4	4/4
20.	4/3	3/4	3/4	4/4
21.	3/3	3/2	3/2	3/3
22.	4/2	3/0	3/1	3/3
23.	2/2	3/3	3/3	3/3
24.	2/3	3/3	2/3	4/4
25.	4/3	3/2	3/3	3/2
26.	3/3	3/2	3/2	4/4
27.	2/1	2/1	1/2	4/4
28.	3/4	4/3	3/4	4/4
29.	3/4	4/4	4/4	4/4
30.	2/3	2/1	2/3	1/2

Note. Student numbers correspond with Table 1.

Table 21

Second-Semester 8th-Grade Pretest and Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Academic/Elective Course Option (AECO) Program

	AECO Students			
	English Pretest/Posttest	Math Pretest/Posttest	Science Pretest/Posttest	Social Studies Pretest/Posttest
1.	3/3	3/3	2/2	2/2
2.	3/3	2/3	2/3	2/3
3.	3/3	2/2	2/3	3/3
4.	3/4	4/3	4/4	4/4
5.	4/3	4/4	4/4	4/4
6.	4/3	4/3	3/3	4/3
7.	4/3	4/3	4/4	4/4
8.	4/3	3/3	3/3	4/4
9.	4/4	4/4	4/4	4/4
10.	4/3	3/4	4/4	3/4
11.	4/4	3/3	4/3	4/4
12.	4/3	3/3	3/3	4/4
13.	3/2	3/1	3/2	4/3
14.	4/3	4/2	4/3	4/4
15.	3/3	4/2	2/3	3/4
16.	3/1	2/1	2/3	3/3
17.	3/2	2/2	4/3	4/4
18.	2/2	3/1	2/2	2/4
19.	3/3	0/2	4/3	3/3
20.	4/3	3/3	4/3	3/4
21.	4/4	4/4	4/4	4/4
22.	3/4	3/4	4/4	4/3
23.	3/4	4/4	4/4	4/4
24.	3/3	4/3	3/3	3/3
25.	4/3	4/4	3/4	4/4
26.	3/3	2/0	2/2	2/3
27.	4/4	4/4	4/4	4/4
28.	3/4	4/4	3/4	3/4
29.	3/3	4/3	3/3	4/3
30.	4/3	3/2	2/3	3/4

Note. Student numbers correspond with Table 2.

Table 22

Second-Semester 8th-Grade Pretest English, Math, Science, and Social Studies Course Grades Compared to Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade

Source	CAPS Students						
	Pretest Course Grades		Posttest Course Grades		<i>d</i>	<i>t</i> ^a	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
English	2.97	(0.88)	2.93	(0.83)	.05	-0.20	.42 [†]
Math	2.80	(1.06)	2.47	(1.30)	.27	-1.35	.09 [†]
Science	2.77	(1.00)	2.87	(1.16)	.09	0.65	.26 [†]
Social Studies	3.23	(0.93)	3.23	(0.86)	.00	0.00	.50 [†]

Note. See Tables 20 for CAPS students' course grades.

^aNegative *t* result is in the direction of lower posttest mean English and math course grades.

[†]*ns.*

Table 23

Second-Semester 8th-Grade Pretest English, Math, Science, and Social Studies Course Grades Compared to Second-Semester 9th-Grade Posttest English, Math, Science, and Social Studies Course Grades for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade

Source	AECO Students						
	Pretest Course Grades		Posttest Course Grades		<i>d</i>	<i>t</i> ^a	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
English	3.47	(0.50)	3.13	(0.67)	.57	-2.41	.01**
Math	3.20	(0.95)	2.80	(1.09)	.39	-2.18	.05 ^{b†}
Science	3.20	(0.84)	3.23	(0.67)	.03	0.27	.39 [†]
Social Studies	3.43	(0.72)	3.60	(0.56)	.26	1.31	.10 [†]

Note. See Tables 21 for AECO students' course grades.

^aNegative *t* result is in the direction of lower posttest mean English and math course grades.

^bThe threshold for statistical significance for this research question was $p < .01$.

[†]*ns.* ** $p < .01$.

Table 24

Second-Semester Course Grades for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade Compared to Second-Semester Course Grades for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade

Source	Posttest-Posttest Comparison						<i>d</i>	<i>t</i> ^a	<i>p</i>
	CAPS Students' Course Grades		AECO Students' Course Grades		<i>M</i>	<i>SD</i>			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
English	2.93	(0.83)	3.13	(0.67)	.26	-1.02	.16 [†]		
Math	2.47	(1.30)	2.80	(1.09)	.27	-1.07	.14 [†]		
Science	2.87	(1.16)	3.23	(0.67)	.39	-1.49	.07 [†]		
Social Studies	3.23	(0.86)	3.60	(0.56)	.52	-1.96	.03 ^{b†}		

Note. See Tables 20 and 21 for CAPS and AECO students' course grades.

^aNegative *t* is the result of subtracting AECO students' higher but not statistically different English, math, science, and social studies course grades from CAPS students' course grades.

^bThe threshold for statistical significance for this research question was $p < .01$.

[†]*ns*.

Table 25

Total Year Absence and Tardy Frequencies for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade and the Academic/Elective Course Option (AECO) Program During 9th-Grade

	Absences		Tardies	
	CAPS ^a	AECO ^b	CAPS ^a	AECO ^b
1.	1	4	2	10
2.	14	0	1	2
3.	1	10	9	8
4.	4	4	4	3
5.	8	3	5	3
6.	1	4	2	1
7.	11	0	10	3
8.	21	2	19	0
9.	9	1	12	0
10.	2	0	4	2
11.	12	6	8	2
12.	7	0	1	1
13.	5	7	1	27
14.	0	5	7	4
15.	3	1	1	2
16.	1	10	1	6
17.	11	14	4	4
18.	14	9	14	5
19.	12	7	2	3
20.	1	16	9	13
21.	8	0	9	1
22.	10	7	33	3
23.	1	15	14	0
24.	10	17	5	5
25.	8	2	5	4
26.	3	13	1	11
27.	11	7	0	0
28.	5	9	1	1
29.	8	5	12	4
30.	4	2	0	4

^aCAPS student numbers correspond with Table 1. ^bAECO student numbers correspond with Table 2.

Table 26

Total Year Absence and Tardy Frequencies for Students Who Completed the Career, Academic, Personal, and Social (CAPS) High School Transition Program During 9th-Grade Compared to Total Year Absence and Tardy Frequencies for Students Who Completed the Academic/Elective Course Option (AECO) Program During 9th-Grade

Source	Posttest-Posttest Comparison						
	CAPS Students		AECO Students		<i>d</i>	<i>t</i> ^a	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Absences	6.87	(5.13)	6.00	(5.15)	.26	0.65	.26 [†]
Tardies	6.53	(7.06)	4.40	(5.36)	.27	1.32	.10 [†]

^aPositive *t* is the result of subtracting AECO students' lower but not statistically different total year absence and tardy frequencies from CAPS students' total year absence and tardy frequencies.

[†]*ns.*

Table 27

Frequency and Percent of Career, Academic, Personal, and Social (CAPS) High School Transition Program Students' Compared to Academic/Elective Course Option (AECO) Program Students' Total Athletic, Co-Curricular, and Extra-Curricular Activity Engagement

Source	Posttest-Posttest Engagement Comparison				X^2
	CAPS Students		AECO Students		
	<i>N</i>	%	<i>N</i>	%	
Athletics	23	(57)	32	(42)	
Co-Curricular	5	(13)	22	(29)	
Extra-Curricular	12	(30)	22	(29)	
Totals	40	(100)	76	(100)	8.34 ^{at}

Note. Athletics: Nebraska School Activities Association sanctioned sports. Co-curricular: Nebraska School Activities Association sanctioned activities that are extensions of academic or elective coursework. Extra curricular: School sponsored activities that take place outside of the school day and are not Nebraska School Activities Association sanctioned.

^aObserved verses expected cell percents used for calculation with $df = 2$ and a tabled value = 9.210 required to obtain an alpha level of .01, the threshold for statistical significance for this research question.

[†]*ns.*

CHAPTER FIVE

Conclusions and Discussion

The following conclusions may be drawn from the study for each of the nine research questions.

Research Question #1 Conclusion

Overall, pretest-posttest results indicated ending 8th-grade EXPLORE pretest compared to beginning 10th-grade PLAN posttest standard score conversions for individual 9th-grade students who participated in the CAPS program were statistically significantly different in the direction of lower posttest mean achievement standard score conversions for reading, English, math, and science. Comparing students' posttest PLAN converted reading standard scores with other derived achievement scores puts their performance in perspective. A posttest reading standard score mean of 100.53 is congruent with a Percentile Rank of 50, a Stanine Score of 5 (the middle stanine of the average range), and an achievement qualitative description of average. Comparing students' posttest PLAN converted English standard scores with other derived achievement scores puts their performance in perspective. A posttest English standard score mean of 98.97 is congruent with a Percentile Rank of 45, a Stanine Score of 5 (the middle stanine of the average range), and an achievement qualitative description of average. Comparing students' posttest PLAN converted math standard scores with other derived achievement scores puts their performance in perspective. A posttest math standard score mean of 100.73 is congruent with a Percentile Rank of 50, a Stanine Score of 5 (the middle stanine of the average range), and an achievement qualitative description of average. Comparing students' posttest PLAN converted science standard scores with

other derived achievement scores puts their performance in perspective. A posttest science standard score mean of 101.60 is congruent with a Percentile Rank of 53, a Stanine Score of 5 (the middle stanine of the average range), and an achievement qualitative description of average.

Finally, the lower reading (-4.97), the lower English (-6.30), the lower math (-5.00), and the lower science (-6.23) pretest compared to posttest mean converted standard scores were all measured well within the average range. This pattern of average range posttest achievement test scores may reflect student benefit from participation in the CAPS program during their first year of high school. Because it may be speculated that students who were self assigned to CAPS were also students who needed this program option's career, academic, personal, and social support structure than it may be that maintaining average range test scores over time and readiness for 10th-grade coursework is more important than the negative pretest compared to posttest statistical score change observed. The data suggest that providing career, academic, personal, and social support structures for some 9th-grade students is warranted.

Research Question #2 Conclusion

Overall, pretest-posttest results indicated ending 8th-grade EXPLORE pretest compared to beginning 10th-grade PLAN posttest standard score conversions for individual 9th-grade students who participated in the AECO program were statistically significantly different in the direction of lower posttest mean achievement standard score conversions for reading, English, math, and science. Comparing students' posttest PLAN converted reading standard scores with other derived achievement scores puts their performance in perspective. A posttest reading standard score mean of 105.17 is

congruent with a Percentile Rank of 63, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of average. Comparing students' posttest PLAN converted English standard scores with other derived achievement scores puts their performance in perspective. A posttest English standard score mean of 103.43 is congruent with a Percentile Rank of 58, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of average. Comparing students' posttest PLAN converted math standard scores with other derived achievement scores puts their performance in perspective. A posttest math standard score mean of 104.03 is congruent with a Percentile Rank of 61, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of average. Comparing students' posttest PLAN converted science standard scores with other derived achievement scores puts their performance in perspective. A posttest science standard score mean of 104.93 is congruent with a Percentile Rank of 61, a Stanine Score of 6 (the highest stanine of the average range), and an achievement qualitative description of average.

Finally, the lower reading (-3.30), the lower English (-5.97), the lower math (-5.40), and the lower science (-6.34) pretest compared to posttest mean converted standard scores were all measured well within the average range. This pattern of average range posttest achievement test scores may reflect student benefit from participation in the AECO program during their first year of high school. Because it may be speculated that students who were self assigned to AECO were also students who believed they were stronger academically and did not need the CAPS program option's career, academic, personal, and social support structure in order to maintain average test scores over time it

may be surmised that for these students average range test scores and readiness for 10th-grade coursework is more important than the negative pretest compared to posttest statistical score change observed. The data suggest that providing an academic elective course option is also warranted.

Research Question #3 Conclusion

Overall, the 10th-grade posttest compared to 10th-grade posttest findings adjusted for 8th-grade pretreatment differences indicated congruent reading, English, math, and science converted standard score PLAN comparisons so we do not reject the null hypothesis based on the ANCOVA results for the four achievement subtests. Data suggest that students who participated in the CAPS program and students who participated in the AECO program were equally prepared for performance on the PLAN achievement tests. The equivalent posttest achievement test performance indicates that the differing participation in CAPS and AECO did not result in poorer achievement test performance for students in one transition program over the other. The data also suggest that the rate of pretest compared to posttest achievement test score decline over time observed in both groups was congruent.

Research Question #4 Conclusion

Overall, the beginning 10th-grade posttest compared to beginning 10th-grade posttest findings indicate that the CAPS and AECO programs equally prepared students for reading (sub-question 4a) college readiness and this is reflected in the congruent composite test score frequencies (19, 23) and percents (63, 77) found at or above the benchmark reading score set at 17 or greater that is predictive of students having a 50% chance of earning a grade of B or higher in an entry level college social studies course

(used as a predictor of reading). The observed equipoise for this important categorical data comparison indicates attainment of college readiness reading benchmark goals.

Overall, the beginning 10th-grade posttest compared to beginning 10th-grade posttest findings indicate that the CAPS and AECO programs did not equally prepare students for English (sub-question 4b) college readiness and this is reflected in the statistically different composite test score frequencies (20, 26) and percents (67, 87) found at or above the benchmark English score set at 15 or greater that is predictive of students having a 50% chance of earning a grade of B or higher in an entry level college English course. The difference observed for this important categorical data comparison indicates greater attainment of college readiness English benchmark goals for students who participated in the AECO program.

Overall, the beginning 10th-grade posttest compared to beginning 10th-grade posttest findings indicate that the CAPS and AECO programs equally under-prepared students for math (sub-question 4c) college readiness and this is reflected in the congruent composite test score frequencies (7, 11) and percents (23, 37) found at or above the benchmark math score set at 19 or greater that is predictive of students having a 50% chance of earning a grade of B or higher in an entry level college math course. The observed equipoise for this important categorical data comparison indicates a consistent lack of attainment of college readiness math benchmark goals for both groups.

Overall, the beginning 10th-grade posttest compared to beginning 10th-grade posttest findings indicate that the CAPS and AECO programs did not equally prepare students for science (sub-question 4d) college readiness and this is reflected in the statistically different composite test score frequencies (3, 11) and percents (10, 37) found

at or above the benchmark science score set at 21 or greater that is predictive of students having a 50% chance of earning a grade of B or higher in an entry level college science course. The difference observed for this important categorical data comparison indicates that although students who participated in AECO had greater attainment of college readiness science benchmark goals, there is a consistent lack of attainment of college readiness science benchmark goals for both groups.

Research Question #5 Conclusion

Overall, pretest-posttest results indicated pretest ending 8th-grade course grades compared to posttest ending 9th-grade course grades for individual 9th-grade students who participated in the CAPS program were not statistically significantly different in the direction of lower posttest mean course grades for English and math, in the direction of a higher posttest mean course grade for science, and an equivalent course grade for social studies. Comparing students' posttest mean course grades with grade nomenclature puts their performance in perspective. A posttest English mean course grade of 2.93 is congruent with a letter grade of C+ and a course grade description of average. A posttest math mean course grade of 2.47 is congruent with a letter grade of C and a course grade description of average. A posttest science mean course grade of 2.87 is congruent with a letter grade of C+ and a course grade description of average. A posttest social studies mean course grade of 3.23 is congruent with a letter grade of B and a course grade description of above average.

Finally, the lower English (-0.04), the lower math (-0.33), the higher science (0.10), and the equivalent social studies (0.00) pretest compared to posttest mean course grades were all measured well within the average to above average range. This pattern of

average range posttest course grade achievement may reflect student benefit from participation in the CAPS program during their first year of high school. Because it may be speculated that students who were self assigned to CAPS were also students who needed this program option's career, academic, personal, and social support structure than it may be that maintaining average range course grades over time and readiness for 10th-grade coursework is more important than any negative pretest compared to posttest course grade changes observed. The data suggest that providing career, academic, personal, and social support structures for some 9th-grade students is warranted.

Research Question #6 Conclusion

Overall, pretest-posttest results indicated pretest ending 8th-grade course grades compared to posttest ending 9th-grade course grades for individual 9th-grade students who participated in the AECO program were statistically significantly different in the direction of lower posttest mean course grades for English and not statistically significantly different in the direction of lower posttest mean course grades for math while higher posttest mean course grades were observed for science and social studies. Comparing students' posttest mean course grades with grade nomenclature puts their performance in perspective. A posttest English mean course grade of 3.13 is congruent with a letter grade of B and a course grade description of above average. A posttest math mean course grade of 2.80 is congruent with a letter grade of C+ and a course grade description of average. A posttest science mean course grade of 3.23 is congruent with a letter grade of B and a course grade description of above average. A posttest social studies mean course grade of 3.60 is congruent with a letter grade of B+ and a course grade description of above average.

Finally, the lower English (-0.34), the lower math (-0.40), the higher science (0.03), and the higher social studies (0.17) pretest compared to posttest mean course grades were all measured well within the average to above average range. This pattern of average range posttest achievement test scores may reflect student benefit from participation in the AECO program during their first year of high school. Because it may be speculated that students who were self assigned to AECO were also students who believed they were stronger academically and did not need the CAPS program option's career, academic, personal, and social support structure in order to maintain average or better course grades over time it may be surmised that for these students average range course grades and readiness for 10th-grade coursework is more important than any negative pretest compared to posttest course grade changes observed. The data suggest that providing an academic elective course option is also warranted.

Research Question #7 Conclusion

Overall, posttest-posttest results indicated ending 9th-grade posttest course grades compared to ending 9th-grade posttest course grades for individual 9th-grade students who participated in the CAPS and AECO programs were not statistically significantly different in the direction of higher posttest mean course grades for students who completed the AECO program in the four measured course grade content areas (a) English, (b) math, (c) science, and (d) social studies.

Comparing AECO students' posttest mean course grades with grade nomenclature puts their performance in perspective. A posttest English mean course grade of 3.13 is congruent with a letter grade of B and a course grade description of above average. A posttest math mean course grade of 2.80 is congruent with a letter grade of C+ and a

course grade description of average. A posttest science mean course grade of 3.23 is congruent with a letter grade of B and a course grade description of above average. A posttest social studies mean course grade of 3.60 is congruent with a letter grade of B+ and a course grade description of above average.

Comparing CAPS students' posttest mean course grades with grade nomenclature puts their performance in perspective. A posttest English mean course grade of 2.93 is congruent with a letter grade of C+ and a course grade description of average. A posttest math mean course grade of 2.47 is congruent with a letter grade of C and a course grade description of average. A posttest science mean course grade of 2.87 is congruent with a letter grade of C+ and a course grade description of average. A posttest social studies mean course grade of 3.23 is congruent with a letter grade of B and a course grade description of above average.

Finally, the CAPS students' compared to AECO students' lower English (-0.20), lower math (-0.33), lower science (-0.36), and lower social studies (-0.37) posttest mean course grades were all measured well within the average to above average range. The overall pattern of average to above average range posttest course grades observed reflects student benefit from participation in both the CAPS and AECO programs during these students' first year of high school. The data further suggest that providing first year high school students with a career, academic, personal, and social support option provides a benefit that should be sustained. Furthermore, providing an academic elective course option for students is warranted.

Research Question #8 Conclusions

Overall, posttest-posttest results indicated that total year 9th-grade posttest behavior absences and tardies compared to total year 9th-grade posttest behavior absences and tardies for individual 9th-grade students who participated in the CAPS and AECO programs were not statistically significantly different in the direction of higher posttest mean absences and tardies for students who completed the CAPS program.

Comparing CAPS students' posttest mean total year 9th-grade absences with school absence policy puts their behavior in perspective. A total year 9th-grade absence frequency of 6.87 days is 3.13 days below the threshold for an intervention letter and 13.13 days below the threshold for county attorney intervention. Comparing CAPS students' posttest mean total year 9th-grade tardies with school tardy policy puts their behavior in perspective. A total year 9th-grade tardy frequency of 6.53 tardies is 2.53 tardies above the threshold for parental contact but .47 tardies below the threshold for being dropped from a class with loss of credit.

Comparing AECO students' posttest mean total year 9th-grade absences with school absence policy puts their behavior in perspective. A total year 9th-grade absence frequency of 6.00 days is 4.00 days below the threshold for an intervention letter and 14.00 days below the threshold for county attorney intervention. Comparing CAPS students' posttest mean total year 9th-grade tardies with school tardy policy puts their behavior in perspective. A total year 9th-grade tardy frequency of 4.40 tardies is .40 tardies above the threshold for parental contact but 2.60 tardies below the threshold for being dropped from a class with loss of credit.

Finally, the CAPS students' compared to AECO students' higher absence frequencies (0.87) and higher tardy frequencies (2.13) were still measured below the thresholds for severe intervention and consequences. The overall pattern of total year 9th-grade absences and tardies indicates that students in both groups could be considered to have appropriate levels of self-control and self-regulation for staying in school and succeeding academically although these positive attributes may only indirectly be attributed to CAPS and AECO program support.

Research Question #9 Conclusion

Overall, posttest compared to posttest findings indicate that the CAPS and AECO programs equally prepared students for engagement during their initial year of high school, reflected in the congruent participation percents observed. Posttest compared to posttest findings indicate that the CAPS and AECO programs equally prepared students for engagement during their initial year of high school reflected in the congruent participation percents (57, 42) for athletics, congruent participation percents (13, 29) for co-curricular activities, and congruent percents (30, 29) for extra-curricular activities.

Finally, posttest compared to posttest findings indicated that students participating in the CAPS and AECO programs throughout their 9th-grade school year took advantage of the engagement opportunities available at the research high school. On average CAPS program students ($n = 30$) participated in 1.33 engagement opportunities per student while the AECO program students ($n = 30$) participated in 2.53 engagement opportunities per student. Participation in athletic, co-curricular, and extra-curricular activities may only indirectly be attributed to CAPS and AECO program support.

Discussion

The results of this study supported student participation in both the CAPS and AECO transition program options. Because students in both groups maintained average to above average academic achievement through 9th-grade, and appropriate behavior and engagement to support school success during 9th-grade, the results suggest the continued implementation of both program options. Faced with social and emotional changes associated with adolescence and increased academic demands to prepare students for an ever-changing workforce, students and, in many cases, parents rely on educators to provide appropriate support to help students successfully navigate challenges as they transition from middle school to high school (Cushman, 2006; Dedmond et al., 2006; Hair et al., 2002). While these students' success cannot be directly attributed to participation in CAPS or AECO, it can be surmised that the programs indirectly attributed to students' success in accordance with their needs.

Implications for Practice

Researchers are clear in their support for providing programs and activities that support successful transition for students entering 9th-grade (Bottoms, 2008; Cushman, 1996; Hair et al., 2002). With high school completion being highly dependent upon success during the initial year of high school, stakes are high for educators to provide appropriate assistance to 9th-grade students, lest they become part of the worrisome statistics associated with high school drop-outs (Bottoms, 2008; Laird et al., 2007; NASSP, 2005).

This study underscores the notion that some students have already developed many of the personal assets that are necessary for them to independently navigate their academic, personal, and social needs as they transition from middle school to high school

and early adolescence to middle adolescence, while others benefit from additional structure and support built into their school routine in order to realize similar success (Lewis, 1991; Search Institute, 2008). Where students need assistance, educators must look to research and best practice to implement structures within their systems to provide appropriate academic, personal, and social supports (DuFour et al., 2004; CASEL, 2003; Hertzog & Morgan, 1999; NASSP, 2004). While the assistance does not necessarily have to look the same for all students or come in the form of a guided study hall program like CAPS, the components the program, career, academic, personal, and social skills instruction, need to be available for all students.

Career component of CAPS. Students entering high school need to realize the relevance of their coursework in order to truly engage in learning that they will find meaningful (Dedmond et al., 2006; NDE, 2006; Partnership for 21st Century Skills, 2004). Speakers and teacher-directed classroom lessons provided opportunities for CAPS participants to identify personal career interests, set post-secondary goals, identify a 4-year high school course plan to support those goals, and begin to link current learning to their long-term objectives, making it possible for them to realize school connections to their lives throughout their high school careers. Many of these same concepts and skills were reinforced for students when they took the Career Exploration course required of all 10th-grade or 11th-grade students. AECO students had their initial formal exposure to some of these skills and concepts associated with career planning, although not until their 10th-grade or 11th-grade year when they, too, completed the Career Exploration course.

Academic component of CAPS. Students also need to have guidance in mastering study skills necessary for success in high school (Lampert, 2005; McIntosh &

White, 2006; Partnership for 21st Century Skills, 2004). The CAPS program provided students with a caring, supportive adult who routinely took time to check on students' progress, and help students set and monitor achievement goals. It was assumed in this study that AECO participants who elected to take a full load of classes without a study hall already mastered study skills necessary for success or had home support necessary for achievement. All students in this study school participated in the advisement program that would theoretically provide some adult encouragement in terms of monitoring grade progress. In most cases, such support was limited to distribution of progress and term grade reports, which was an adequate level of support for some students, even as 9th-graders.

Personal/Social component of CAPS. Students also need assistance navigating the personal and social issues associated with adolescence in order to develop mature coping and problem-solving skills necessary for continued success (Bremer & Smith, 2004; Hair et al., 2002; Schlossberg, 2001; Tatum, 1997). Again, the CAPS program provided students opportunities to work directly with guidance counselors, school psychologists, district social workers, and other professional adults who led discussion and exploration activities to help students explore personal development topics, peer pressure and other relationship issues, stress management skills, conflict resolution skills, and more in order to foster pro-social behaviors one would associate with well-adjusted youth. While guidance and counseling services are available to all students throughout high school, including those who participated in the AECO program, few students independently choose to access such services unless they are referred in reaction to a problem identified by a teacher or parent, or unless they have a question or concern about

their course schedule that needs a counselor's intervention. Students, regardless of the transition program selected during their initial year of high school, might also find exposure to some of these topics later in their high school career should they choose to enroll in elective courses such as Parenting or Psychology.

Implications for Policy

Educators need to provide support appropriate to help 9th-grade students realize success during their initial year of high school. While many schools, including the study school, implement course registration activities and building tours to help incoming 9th-grade students select appropriate classes and become familiar with a new facility, those efforts are simply not enough.

Educators in the study district who were directly involved in developing and implementing the CAPS program were confident of its value and impact on 9th-grade students' academic and affective development. Unfortunately the CAPS program was discontinued in the study district after only 2 years of implementation, before data were available to truly evaluate its efficacy. Due to financial restraints associated with personnel needs and perceptions of some decision-makers who admittedly would have selected the AECO program for their own children, the CAPS program was deemed unnecessary, from their adult viewpoint, and discontinued. Fortunately, educators in the study school identified means by which to otherwise infuse at least some components of the CAPS program into other existing coursework and student support systems.

Career component after CAPS. With very few exceptions, all students in the study school must now complete the Career Exploration course as a 10th-grader. While this option does not help students identify post-secondary goals until their 2nd year of

high school, they are still able to explore career interests, set post-secondary goals, and identify high school courses to support those goals prior to their junior and senior years.

Academic component after CAPS. The CAPS program was conceptualized to be a proactive approach to increase achievement of all 9th-grade students. It was available to all students who elected to take fewer than eight of eight possible periods of instruction during the 9th-grade year, and replaced what would have otherwise been a study hall period in the school's cafeteria. Once CAPS was discontinued, school personnel realized a spike in the number of 9th-grade students who were experiencing academic difficulty and class failure. As a reaction to this, the study school implemented a new guided study hall specifically for students who were experiencing class failure. Students who experience failure in 2 or more classes are removed from at least one of those classes and placed in a guided study hall where a para-educator helps monitor students' assignments, leads study sessions, and provides homework help. Eighth-grade students who are identified as being at high risk of failure in high school are now automatically assigned to this guided study hall for one period as they enter 9th-grade in an attempt at being more proactive, but many 9th-grade students continue to be reassigned after experiencing difficulty or failure during the first few weeks of their high school experience. This guided study hall provides a good measure of academic support for those 9th-grade students who are most at-risk of failure during high school. It will be important for school administrators to formally evaluate its impact and provide resources, accordingly.

Personal/Social component after CAPS. Arguably the most natural fit within existing school systems for personal and social curriculum implementation to date has

been the study school's advisement program. Since CAPS was discontinued, much work has been, and continues to be done, in order to improve advisement practices so all students have consistent exposure to curriculum that supports their personal and social development. Each advisement group contains a mix of students from grades 9 through 12, so activities are limited to broad teacher-led discussion topics that are suggested by a committee of teachers responsible for developing advisement activities. Topics have included such things as dating violence, eating disorders, and discussions on current events. Plans are being discussed to break the advisement groups into grade-specific groups so topics and activities can become more age and grade-appropriate and involve active involvement and support from the school's psychologist and members of the guidance department.

While these efforts to keep the career, academic, personal, and social components of the CAPS program are laudable, they lack specificity, consistency, and fidelity in terms of implementation. As it is highly unlikely that decision-makers would support reinstating the CAPS program in its original form, efforts to target career education, academic support, and exploration of personal and social issues for students during their initial year of high school need to be revisited and improved.

Consideration needs to be given to restructure mixed-grade advisement groups into 9th-grade-specific teams, since advisement is an existing structure where former CAPS curriculum components could be easily implemented and serve all 9th-grade students equally. Teachers who are highly effective at working with 9th-grade students could be assigned as advisors to this unique group of students in order to provide guidance and encouragement specific to 9th-grade coursework, help students set and

monitor classroom achievement goals, and organize peer tutoring and study sessions that would support all students' academic needs. Grade-specific activities could be organized so advisement teams could explore career interests, identify post-secondary goals, and develop plans for high school study to support such long-term goals. Counselors would be more accessible to interact with smaller, more intimate groups of students in 9th-grade advisory groups in order to lead lessons and engage students in activities that would allow them opportunities to explore personal and social issues relevant to middle adolescents. Advisement groups of 10th-grade through 12th-grade students could practice leadership skills to earn the opportunity to serve as peer tutors, team facilitators, or peer counselors to students in the 9th-grade advisement teams. The possibilities are limitless and deserve consideration (Donegan, 2008; Lampert, 2005; McIntosh & White, 2006; NASSP, 2004; Stader & Gagnepain, 2000).

Implications for Further Research

The results of this study point to the need for further research in several key areas. Despite documented practices of 9th-grade-specific guided study hall or advisement programs, little research exists to support curriculum development and overall efficacy of those programs related to student achievement, behavior, and engagement (Cotton, 1996; Dedmond et al., 2006; Hertzog & Morgan, 1999). A great deal more can be learned with additional research into the efficacy of support efforts provided for students entering high school who have been previously identified during 8th-grade as having multiple risk factors, putting them at increased risk of failure during 9th-grade. Also important would be information related to the efficacy of support efforts for 9th-grade students

disaggregated by socio-economic status, race, gender, English-language proficiency, and special education status.

Qualitative information would also provide educators with valuable information to use in planning support efforts for students entering high school. A comprehensive student and parent survey to explore the perceived effectiveness of the CAPS program or its components could yield important information about its most valued curricular components. With that information in hand, school personnel would have clear direction for curricular needs that could be otherwise replicated within the school.

Finally, educators should sustain programs that they know directly and even indirectly help 9th-grade students realize academic success, demonstrate positive behaviors, and become actively engaged to increase the likelihood of high achievement during their initial year of high school. Overall, the results of this study suggest continued use of curricular components associated with the study school's former Career, Academic, Personal, and Social high school transition program.

References

- ACT. (2005). Issues in college readiness: What are ACT's college readiness benchmarks? Retrieved January 18, 2010, from www.act.org/research/policymakers/pdf/benchmarks/pdf
- ACT. (2008). Retrieved June 24, 2008, from <http://www.act.org/>
- American School Counselor Association. Retrieved March 1, 2009, from <http://www.schoolcounselor.org>
- Beland, K. (2007, April). Boosting social and emotional competence. *Educational Leadership*. 64(7), 68-71.
- Blakemore, S. J. (2008). Developing the social brain during adolescence. *The Quarterly Journal of Experimental Psychology*. 61(1), 40-49.
- Blum, R. W. (2005). Case for school connectedness. *Educational Leadership*. 62(7), 16-20.
- Bottoms, G. (2008). *Redesigning the ninth-grade experience: Reduce failure, improve achievement and increase high school graduation rates*. Atlanta, GA: Southern Regional Education Board.
- Bottoms, G. & Timberlake, A. (2007). *Giving students a chance to achieve: Getting off to a fast and successful start in grade nine*. Atlanta, GA: Southern Regional Education Board.
- Bremer, C. D. & Smith, J. (2004). Teaching social skills. *Addressing Trends of Developments in Secondary Education and Transitions Information Brief*. 3, 1-5.

- Bushaw, W. J., & Gallup, A. M., (2008). Americans speak out – Are educators listening: The 40th annual Phi Delta Kappa/Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*. 90(1), 9-20.
- Carnegie Corporation of New York. (1995). *Great Transitions: Preparing adolescents for a new century*. Waldorf, MD: Carnegie Corporation of New York. Retrieved August 5, 2008, from http://www.carnegie.org/sub/pubs/reports/great_transitions/gr_exec.html
- Collaborative for Academic, Social, and Emotional Learning. (2003). *Safe and Sound: An Educational Leader's Guide to Evidence-Based Social and Emotional Learning (SEL) Programs*. Chicago, IL: Author.
- Cotton, K. (1996). *Affective and social benefits of small-scale schooling*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Identifier ED401088).
- Cushman, K. (2006, April). Help us make the 9th grade transition. *Educational Leadership*. 63(7), 47-52.
- Dawson, P. & Guare, R. (2009, April). Executive skills: The hidden curriculum. *Principal Leadership*. 9(7), 10-14.
- Dedmond, R., Brown, R. D., & LaFauci, J. M. (2006). *Freshman transition programs: Long-term and comprehensive*. Principal's Research Review. Reston, VA: National Association of Secondary School Principals. 1(4).
- DiMartino, J., & Castaneda, A. (2007, April). Assessing applied skills. *Educational Leadership*. 64(7), 38-42.
- Donegan, B. (2008, May). The linchpin year. *Educational Leadership*. 65(8), 54-56.

- DuFour, R., DuFour, R., Eaker, R. & Karhanek, G. (2004). *Whatever it takes: How professional learning communities respond when kids don't learn*. Bloomington, IN: National Educational Service.
- Gideon, B. H. (2004, April). Creating a safety net: Successful ninth-grade transition can be achieved with a program that weaves together multiple supports. *Principal Leadership*. 4(7), 65-66.
- Hair, E. C., Ph.D., Jager, J., & Garrett, S. B. (2002). Helping teens develop healthy social skills and relationships: What the research shows about navigating adolescence. *Child Trends: Research Brief*. 1-8.
- Heckman, J. J. (2008). Schools, skills, and synapses: Discussion paper number 3515. Bonn, Germany: Institute for the Study of Labor.
- Hertzog, J. C., and Morgan, P. L. (1999). *Transition: A process, not an event*. Reston, VA: National Association of Secondary School Principals.
- Hertzog, J. C., and Morgan, P. L. (1998). Breaking the barriers between middle school and high school: Developing a transition team for student success. *National Association of Secondary School Principals Bulletin*. 82(597), 94-98.
- Hill, J. W. (1989). At-risk youth in suburban Nebraska. *Nebraska Policy Choices: Education*. Omaha, NE: Center for Public Affairs Research, College of Public Affairs and Community Services, University of Nebraska at Omaha. 139-147.
- Hill, J. W., & Coufal, K. L. (2005). Emotional/behavioral disorders: A retrospective examination of social skills, linguistics, and student outcomes. *Communication Disorders Quarterly*. 27, 33-46.

- Hill, J. W., & Thompson, F. T. (2002). Brain science and brain sense. *LDA Nebraska Newsbriefs*: Vol. Summer. Omaha, NE: Learning Disabilities Association of Nebraska.
- Hoachlander, G. (2007, April). New rigor for career education. *Educational Leadership*. 64(7), 34-35.
- Isakson, K. & Jarvis, P. (1999). The adjustment of adolescents during the transition into high school: Short-term longitudinal study. *Journal of Youth and Adolescence*. 28(1), 1-26.
- Laird, J., DeBell, M., Kienzl, G., & Chapman, C. (2007). *Dropout rates in the United States: 2005* (NCES 2007-059). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>
- Lampert, J. (2005, April). Easing the transition to high school. *Educational Leadership*. 62(7), 61-63.
- Lewis, J. (1991). The physiological and psychological development of the adolescent: Contents of curriculum unit 91.05.07. Yale-New Haven Teachers Institute. Retrieved June 16, 2009, from <http://www.yale.edu/ynhti/curriculum/units/1991/5/91.05.07.x.html>
- McIntosh, J., & White, S. H. (2006). Building for freshman success: High schools working as professional learning communities. *American Secondary Education*. 34(2), 40-49.
- Mizelle, N. B. (2005, April). Moving out of middle school. *Educational Leadership*. 62(7), 56-60.

National Association of Secondary School Principals (NASSP). (2005). *What counts: Defining and improving high school graduation rates* (Amy Ciliberto Barrett, Ed.). Reston, VA: Author.

National Association of Secondary School Principals (NASSP). (2004). *Breaking ranks II: Strategies for leading high school reform*. Reston, VA: Author.

National Association of Secondary School Principals (NASSP). (1996). *Breaking ranks: Changing an American institution*. Reston, VA: Author.

Nebraska Career Connections. Retrieved March 1, 2009, from <http://www.nebraskacareerconnections.org>

Nebraska Department of Education (NDE). (2006). *Nebraska school counseling career development guide: Skills for lifelong learning, earning, and living*. Lincoln, NE: Author.

Nebraska Department of Health and Human Services (NDHHS). (2007). *Substance abuse and associated consequences in Nebraska: An epidemiological profile*. Lincoln, NE: Author.

Nebraska Health and Human Services System (NHHSS). (2004). *Nebraska adolescents: The results of the 2003 youth risk survey of Nebraska public high school students (Grades 9-12)*. Lincoln, NE: Author.

Newman, B. M., Lohman, B. J., Newman, P. R., Myers, M. C. & Smith, V. L. (2000). Experiences of urban youth navigating the transition to ninth grade. *Youth & Society*. 31(4), 387-416.

No Child Left Behind (NCLB) Act of 2001 (H.R. 1). 107 Cong., 110(2002)(enacted).

- Partnership for 21st Century Skills. (2004). Framework for 21st century learning. Retrieved February 11, 2010, from <http://www.21stcenturyskills.org/>
- Price, L. F. (2005, April). The biology of risk taking. *Educational Leadership*, 62(7), 22-26.
- Quint, J. (2006). Research-based lessons for high school reform: Findings from three models. *Principal's research review*. Reston, VA: National Association of Secondary School Principals. 1(3).
- Roderick, M., & Camburn, E. (1999). Risk and recovery from course failure in the early years of high school. *American Educational Research Journal*, 36(2), 303-343.
- Schlossberg, S. M. (2001). The effects of a counselor-led guidance intervention on students' behaviors and attitudes. *Professional School Counseling*, 4(3), 156-165.
- Search Institute. (2008). What kids need: Developmental assets. Retrieved February 11, 2010, from <http://www.search-institute.org/developmental-assets>
- Smith, J. B. (1997). Effects of eighth-grade transition programs on high school retention and experiences. *Journal of Educational Research*, 90(3), 144-152.
- Sornson, B. (2007, October). The early learning success initiative. *Educational Leadership*, 65(2), 42-43.
- Sprenger, M. (2005, April). Inside Amy's brain. *Educational Leadership*, 62(7), 28-32.
- Stader, D., & Gagnepain, F. G. (2000). Mentoring: The power of peers. *American Secondary Education*, 28(3), 28-32.
- Susman, E. J., & Rogol, A. (2004). Puberty and psychological development. In Lerner, R. M. & Steinberg, L. (Eds.), *Handbook of adolescent psychology* (2nd ed.) (pp.15-44). Hoboken, NJ: John Wiley & Sons, Inc.

- Tatum, B. D. (1997). *Why are all the black kids sitting together in the cafeteria? and other conversations about race*. United States of America: Basic Books.
- Willis, J., M. D. (2007). *Brain-friendly strategies for the inclusion classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Willis, J., M.D. (2006). *Research-based strategies to ignite student learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wolfe, P. (2005, April). Advice for the sleep-deprived. *Educational Leadership*. 62(7), 39-40.