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The relationships among levels of hope, coping efficacy and postsecondary educational expectations of high school seniors

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THE RELATIONSHIPS AMONG LEVELS OF HOPE,
COPING EFFICACY AND POSTSECONDARY
EDUCATIONAL EXPECTATIONS OF
HIGH SCHOOL SENIORS

By

Linda D. Griffin, B.A., M.Ed.

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

COLLEGE OF EDUCATION
LOUISIANA TECH UNIVERSITY

May 2005

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Date

We hereby recommend that the dissertation prepared under our supervision
by Linda Dexter Griffin

entitled The Relationships Among Levels of Hope, Coping Efficacy, and Post Secondary
Educational Expectations of High School Seniors

be accepted in partial fulfillment of the requirements for the Degree of
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ABSTRACT

The purpose of this study was to answer two research questions: (1) Is there a relationship between high school seniors' levels of hope and their postsecondary educational plans? and (2) Is there a relationship between high school seniors' coping efficacy and their postsecondary educational plans? Three hundred and twenty-five students enrolled in English IV classes from seven high schools in three separate school districts in north central Louisiana completed the three survey instruments. Standard descriptive statistics were derived as appropriate for each of the two independent variables and dependent variable. The two independent variables were hope, as measured by the Future Scale, and coping efficacy, as measure by the Coping Efficacy Index. Postsecondary educational expectation for high school seniors was the dependent variable, measured by the Survey of Postsecondary Plans. Educational options included levels of certainty for 4-year college or university, community college, or vocational school, as well as general postsecondary expectations, which was a product of the former three. The two sets of hypotheses were analyzed using the Pearson product-moment correlations. The tests of the hypotheses were performed using the Total Future scores and Overall Coping scores tested against the Survey of Postsecondary Plans. A Pearson correlation determined a statistically significant correlation between Total Future scores and the certainty to attend a 4-year college or university, with greater reported hope associated with greater reported certainty of the subjects' expectations to attend a 4-year college or university. A statistically significant correlation between Overall Coping

scores for both general certainty for postsecondary education and for certainty for 4-year college or university was found. In this case, greater coping efficacy was associated with greater certainty for 4-year college or university as well as with greater general certainty for postsecondary education. The overall findings revealed that the two independent variables, hope and coping efficacy, showed significant but modest relationships to the dependent variable, postsecondary educational expectations of high school seniors.

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DEDICATION

I dedicate this dissertation to my family. To my Mom and Dad, thank you for helping me to learn early the benefits of responsibility and delayed gratification and for your love and belief in me. For my sister Michelle, I am grateful to you for listening to me and talking me through the rough spots every day of this phase of my life. I am indebted to you for making personal sacrifices in caring for family in order that I might have the time to pursue this dream.

For my son Jeremy, you showed courage in making your educational and career decisions, helping me to believe that I, too, could take risks. As you left “the nest,” you demonstrated independence and maturity and allowed me the freedom to focus on my goals.

And especially I thank my husband, Dixie M. Griffin Jr., my best friend and cheerleader. You tutored me, praised me, comforted me, and believed in me always. Were it not for your patience and encouragement, I would not be completing this odyssey. Your faith in me has been my greatest source of sustenance.

TABLE OF CONTENTS

ABSTRACT.....	iii
DEDICATION.....	vi
LIST OF TABLES.....	ix
LIST OF FIGURES	xii
ACKNOWLEDGMENTS	xiii
CHAPTER ONE: Introduction	1
Purpose of the Study	1
Justification for the Study	2
Theoretical Framework.....	4
Research Questions.....	9
Research Hypotheses	10
Definitions.....	11
CHAPTER TWO: Literature Review	15
Introduction.....	15
Development of Emotional Competencies	15
Hope.....	19
Hopelessness and Youth	29
Engendering Hope	32
Self-Efficacy	33
Self-Efficacy and Academics.....	38
Self-Efficacy and Career Expectations	46
Self-Efficacy and Gender.....	51
Promoting Self-Efficacy in Youth	52
Hope, Self-Efficacy, Self-Concept, and Self-Esteem Compared	53
Coping and Coping Efficacy.....	56
Postsecondary Educational Expectations.....	60
Summary	64
CHAPTER THREE: Methodology.....	68
Introduction.....	68
Research Design.....	69
Null Hypotheses.....	70
Population and Sample	71

Instrumentation	71
Procedural Details	77
Phase I, Pilot Study	79
Data Analysis	81
Interpretation Plans	83
Limitations	84
 CHAPTER FOUR: Results.....	 86
Introduction.....	86
Phase II, the Full Research Study	88
Survey Instruments	90
Tests of Hypotheses	94
Analyses Using Pearson Product-Moment Correlations.....	94
Analyses Using Kruskal-Wallis H Tests.....	105
Analyses Using Multiple Linear Regressions.....	109
Analyses Using Multiple Discriminant Analyses	111
Summary	114
 CHAPTER FIVE: Summary, Conclusions, Limitations, Recommendations and Implications for Education.....	 118
Summary	118
Conclusions.....	120
Recommendations.....	128
Implications for Education.....	130
 REFERENCES	 134
 APPENDIX A: Study/Project Information for Human Use Committee	 142
 APPENDIX B: Human Use Committee Review	 145
 APPENDIX C: Human Use Consent Form	 147
 APPENDIX D: Human Use Consent Form – Parental Permission	 150
 APPENDIX E: Letter to Superintendents of Schools in Selected School Districts in North Central Louisiana	 153
 APPENDIX F: Letter to Principals in Selected High Schools in North Central Louisiana	 155
 APPENDIX G: Letters to Teachers in Selected High Schools in North Central Louisiana	 157
 APPENDIX H: Survey of Postsecondary Plans, The Future Scale, and The Coping Efficacy Index	 161

LIST OF TABLES

Table 1	
Number, Race/Ethnicity, Gender, Age, and Grade Point Average of Pilot Sample.....	80
Table 2	
Certainty Level – General Postsecondary Education Plans of Pilot Sample	80
Table 3	
Reported Race/Ethnicity, Age, and Gender of Subjects	89
Table 4	
Reported Grade Point Average of Subjects	90
Table 5	
Descriptive Statistics for Future Scale, Coping Efficacy Index, and Survey of Postsecondary Plans, Including Subscales.....	93
Table 6	
Pearson Correlations for Total Future Scores and Certainty of Educational Plans.....	96
Table 7	
Pearson Correlations for Overall Coping Index Scores and Certainty of Educational Plans.....	98
Table 8	
Pearson Correlations for Agency Subscales Scores of Future Scale and Certainty of Educational Plans.....	99
Table 9	
Pearson Correlations for Pathways Subscale Scores of Future Scale and Certainty of Educational Plans.....	100
Table 10	
Pearson Correlations for Personal Coping Subscale Scores of Coping Efficacy Index and Certainty of Educational Plans.....	101

Table 11	
Pearson Correlations for Interpersonal Coping Subscale Scores of Coping Efficacy Index and Certainty of Educational Plans.....	101
Table 12	
Pearson Correlations for Male Total Future Scores and Certainty of Educational Plans.....	103
Table 13	
Pearson Correlations for Male Overall Coping Scores and Certainty of Educational Plans.....	103
Table 14	
Pearson Correlations for Female Total Future Scores and Certainty of Educational Plans.....	104
Table 15	
Pearson Correlations for Female Overall Coping Scores and Certainty of Educational Plans.....	105
Table 16	
Kruskal-Wallis Test Statistics for Total Future Scores and Four Groups	106
Table 17	
Kruskal-Wallis Groups and Mean Ranks for Total Future Scores	107
Table 18	
Kruskal-Wallis Test Statistics for Overall Coping Scores and Four Groups.....	108
Table 19	
Kruskal-Wallis Groups and Mean Ranks for Overall Coping Scores	108
Table 20	
Multiple Linear Regression for Certainty to Plan 4-Year College or University, Total Future Scores, and Overall Coping Scores.....	109
Table 21	
Multiple Linear Regression for Certainty to Plan Community College, Total Future Scores, and Overall Coping Scores.....	110
Table 22	
Multiple Linear Regression for Certainty to Plan Vocational School, Total Future Scores, and Overall Coping Scores	110
Table 23	
Wilks' Lamda Statistics for Stepwise Multiple Discriminant Analyses.....	112

Table 24	
Summary of Canonical Discriminant Functions for Stepwise Multiple Discriminant Analysis.....	112
Table 25	
Wilks' Lambda Statistics for the Two Discriminant Functions.....	113
Table 26	
Standardized Canonical Discriminant Function Coefficients.....	113

LIST OF FIGURES

Figure 1	
Hope Theory: Agentic Thinking and Pathways Thinking Contribute to Goals	5
Figure 2	
Coping Efficacy Theory: Efficacy Expectations and Outcome Expectations Influence Goals and Behaviors	7
Figure 3	
Coping efficacy and Hope Influence Postsecondary Educational Expectations	8

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CHAPTER ONE

Introduction

Purpose of the Study

The purpose of this study was to investigate the degree to which two independent variables, levels of hope and coping efficacy, were related to postsecondary educational expectations for high school seniors. Independent variables were levels of hope, measured by the Future Scale (Snyder et al., 1991) and coping efficacy, measured by the Coping Efficacy Index (Milford, 1999). The Future Scale provided an overall hope score as well as sub-scores for pathways thinking and agentic thinking. The sum of the pathways score and agentic thinking score yielded the overall hope score. The Coping Efficacy Index provided a total coping efficacy score with subscale scores for two dimensions of coping efficacy, personal coping efficacy and interpersonal coping efficacy. The sum of personal coping and interpersonal coping scores yielded the overall coping efficacy score. Overall hope scores and overall coping efficacy scores for high school seniors were the scores used for the independent variables.

The dependent variable was the postsecondary educational expectations for high school seniors, specifically the level of certainty for postsecondary educational plans, measured by the Survey of Postsecondary Plans. A value was derived based upon reported plans for subjects to attend a four-year college or university, a community college, a vocational school, or no plans for continued education. The researcher

determined, through data analysis, the degree to which scores on the two independent variables, hope and coping efficacy, predicted the certainty of postsecondary educational plans for high school seniors.

Justification for the Study

Adolescence carries with it challenges and concerns associated with identity formation and role confusion (Brearley, 2001). As adolescents advance toward high school graduation, they are contemplating, perhaps for the first time, the vast changes ahead in life. This contemplation for many is fraught with anxiety and confusion about the impending transition from high school to the activities beyond (Goodnough & Ripley, 1997). Gerdes and Mallinckrodt (1994) noted that this stage of transition can be marked with anxiety, distress, and low self-esteem. Smith (1997) agreed that the high school senior experiences stress, anxiety, and generalized fear associated with anticipation of college, influenced by pressure from family and friends for the student to make the right choice. Faust (2003), in noting the difficulties associated with the senior high school year experience, observed that students are often more critical of the present than confident about the future. Though an inevitable part of growing up, she noted that this transition may be the first one for many seniors, and it presents itself as hard work for those ill-prepared to make choices.

Choice and goal pursuit are essential for life satisfaction (Snyder, 1994; Bandura, 1997). Even as young people on the cusp of graduation from high school are dealing with anxiety and confusion, they are looking for goals and a path to take into adulthood

(Coles, 1998). The highly structured and controlled school setting in which the students have spent twelve years may have contributed to their difficulty with decision making and goal setting (Conley, 2002).

Goal setting presents a particular challenge to adolescents. Two cognitive processes that directly influence goals and goal pursuit are hope and coping efficacy. Snyder, Cheavens, and Michael (in Snyder, 1999) observed that the “desired target of hopeful thought is the goal” (p. 207). Goal objects are in our thoughts, prompting us to respond effectively with the environment. Individuals with high hope more clearly conceptualize their goals, both short term and long term, designing strategies to work toward goals successfully.

Comfort and success in designing goals is influenced by self-efficacy. Research in social cognitive theory consistently has demonstrated that self-efficacy beliefs influence task choice and persistence and effort toward the task (Schunk & Miller, in Pajares & Urdan, 2002). In other words, students tend to engage in activities that they believe will lead to favorable outcomes and they reject those that they perceive to portend negative outcomes. These students acquire coping efficacy as they perceive the capability to determine and apply strategies to cope with the stress associated with daily challenges of life.

Goal setting is inherent in the transition from high school to college or the workforce. It might follow that the postsecondary expectations of high school students are influenced by their levels of hope and coping efficacy. While the literature is rich in reference to the two cognitive sets, it does not reflect scholarly study comparing hope and coping efficacy to postsecondary educational expectations of high school students. The

absence of a study examining how postsecondary planning is influenced by hope level and feelings of efficaciousness provides justification for such research.

This study provides useful information for educators whose desire is to assist the high school student in developing forethought and a life goal orientation. Information from this study will be useful in determining whether either or both of the emotional intelligences or cognitions (hope and coping efficacy) are important for the adolescent in making future plans. Teachers, administrators, parents, and others significant to the adolescent's life can engender hope and promote self-efficacious thinking (Betz, 2004; Bong & Skaalvik, 2003; Snyder, 1994; Snyder, McDermott, Cook, & Rapoff, 2002; Snyder & Shorey, 2002). With information derived from this study, educators will understand the significance of promoting strategies to foster agentic thinking for the student.

Theoretical Framework

The framework upon which this study was based was built from hope theory as promulgated by Snyder (1994) and Bandura's (1997) social cognitive theory. Both theorists claim that goal pursuit is essential for life satisfaction and intentionality of human agency is a necessary tenet to goal orientation.

Hope as a motivator and sustainer is a centuries old theme (Snyder, 1994). In modern psychology, however, Snyder has been the most prolific researcher in the construct. Snyder (2002) gave credit to Karl Menninger for awakening him to the notion that thinking rather than emotion is at the core of hope. Over the past decade, therefore, Snyder and others have studied hope as a positive motivator derived from a sense of goal-

directed energy and planning to meet goals. Hope theory is comprised of a trilogy including goals, pathways thinking, and agentic thinking (Snyder, 1994; Snyder, 1999; Snyder, 2002; Snyder, Cheavens, & Simpson, 1997; Snyder, & Dinoff, 1999; Snyder, Hoza, Pelham, Rapoff, Ware, et al., 1997; Snyder, Lopez, Shorey, Rand, & Feldman, 2003; Snyder, McDermott, Cook, & Rapoff, 2002; Snyder, & Shorey, 2002).

At the heart of hope theory is the assumption that human actions are goal directed and that goals provide the targets for the individual's mental action sequences (Snyder, 1994). Goals, however, require the means to reach them. The first cognitive process providing the means is pathways thinking, those thoughts that generate workable routes. The second cognition is agency thinking, the perceived capacity to use the pathways to reach the desired goal. As illustrated in Figure 1, hopeful thinking that leads to goals is a union of both pathways and agency thinking, each equally potent and neither alone sufficient to sustain goal pursuit. Hope theorists postulate that pathway and agency thoughts are interdependent, iterative, and additive.

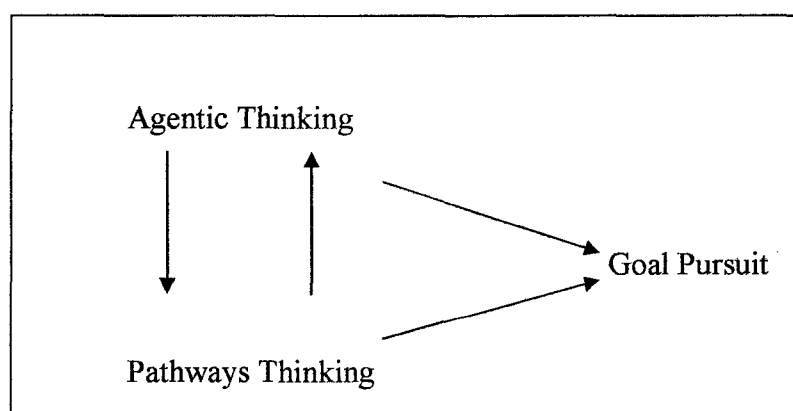


Figure 1. Hope Theory: Agentic Thinking and Pathways Thinking
Contribute to Goals

Agentic thinking and pathways thinking work in concert to assist the individual in making choices to meet challenges. Other theories, such as learned optimism, explain how life challenges are met. Hope differs from learned optimism in that the latter way of thinking gives external reasons for failure (Snyder 1994; Snyder 2002). Optimists provide mental reasons for current and potential failures, often attributing them to factors outside of them. As a way of coping, they assess the failure as a temporary occurrence, and conclude that their lack of success is limited to a specific area. This habitual thinking attribution style is external, variable, and specific. Optimists distance themselves from negative outcomes. In contrast, hope is a more global cognition and focuses on goal-directed cognitions. Attributions for the high hope individual are internal, stable, and global (Snyder, 2002).

Hope also is distinctive from self-concept and self-esteem. Self-concept is a view of self formed through past experiences and evaluations, usually influenced by significant others (Bandura, 1997). Self-esteem, often used interchangeably in the literature with self-concept, is a reflection of the emotions resulting from personal appraisal or judgment and results from valued activities (Snyder, 2002). Hope is an underlying cognition for motivation, and self-esteem is the emotional product following success. Hope and goal-pursuit thinking precede self-esteem, and research has indicated that hope appears to provide greater prediction of positive outcome than does esteem (Curry, Snyder, Cook, Ruby, & Rehm, 1997).

The second major theory for the theoretical framework was self-efficacy or coping efficacy, at the core of which is Bandura's social cognitive theory. According to Bandura, self-efficacy is a set of cognitions leading to the belief that one is capable of

organizing and executing a specific action (Bandura, 1997). At the heart of self-efficaciousness is the drive to control events of one's life, bring about desired outcomes, and avoid undesired outcomes. Similar to hope, healthy self-efficacy leads to a sense of human agency, resulting in the power to originate and execute actions for a given purpose. It is through this cognition that individuals perceive the power that they can intentionally make things happen (Bandura, 2001).

Efficacy is acquired through experiences with success, observing others in successful goal pursuit, influence of significant others, and realistic self-judgments of physical and emotional states (Kazdin, 2000). Goal directed behavior is a result of the self-assessment of the individual's outcome and efficacy expectancies (see Figure 2). Outcome expectancies are a reflection of people's beliefs that a specific outcome will result from a given behavior. Efficacy expectancies are people's beliefs that they have the capability to produce the necessary behaviors. Bandura deems efficacy expectancies to be more critical than outcome expectancies (1997, p. 14).

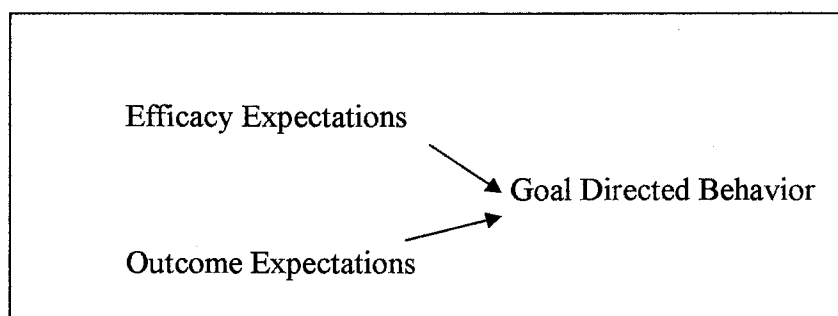


Figure 2. Coping Efficacy Theory: Efficacy Expectations and Outcome Expectations Influence Goals and Behaviors.

Through efficaciousness the individual adopts coping strategies that result in success in reducing undesirable stressors. High coping efficacy is a perception of confidence, motivation, and ability to successfully determine and apply strategies to cope with personal and interpersonal challenges (Milford, 2002). Beliefs in coping efficacy assist the individual in exercising control over dejecting rumination (Kazdin, 2000). Thus, efficaciousness leads to effective problem solving, conflict resolution, and goal setting. Individuals with healthy coping efficacy experience less depression and greater resiliency to adversity (Bandura, 2001).

Building upon the collective works of Bandura and Snyder and the review of pertinent literature, the researcher developed a theoretical base for this study. As illustrated in Figure 3, hope and coping efficacy are related to high school seniors' postsecondary educational expectations. Expectation options included plans to continue formal education (4-year college or university, community college or vocational school), plans not to continue formal education, and indecision.

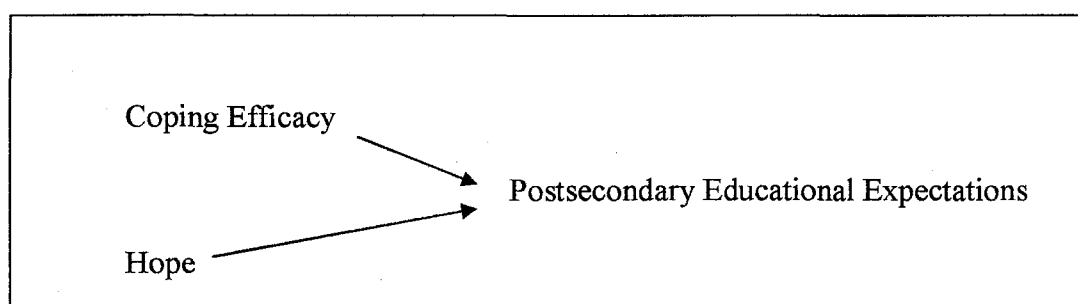


Figure 3. Coping Efficacy and Hope Influence Postsecondary Educational Expectations

Research Questions

To explore the relationships among levels of hope, coping efficacy, and high school seniors' postsecondary educational expectations, the following research questions were investigated:

- Do levels of hope relate to high school seniors' postsecondary educational self expectations?
- Among high school seniors, are levels of hope related to the certainty of expectations to attend a 4-year college or university in the next year?
- Among high school seniors not planning to attend a 4-year college or university, are levels of hope related to the certainty of expectations to attend a community college in the next year?
- Among high school seniors not planning to attend a 4-year college, university, or community college, are levels of hope related to the certainty of expectations to attend a vocational school in the next year?
- Does overall coping efficacy relate to high school seniors' postsecondary educational self-expectations?
- Among high school seniors, are the overall levels of coping efficacy related to the certainty of expectations to attend a 4-year college or university in the next year?
- Among high school seniors not planning to attend a 4-year college or university, are the overall levels of coping efficacy related to the certainty of expectations to attend a community college in the next year?

- Among high school seniors not planning to attend a 4-year college, university, or community college, are overall levels of coping efficacy related to the certainty of expectations to attend a vocational school in the next year?

Research Hypotheses

For the purpose of this study, two general research hypotheses will be tested with three specific hypotheses embedded within each general hypothesis.

- General Research Hypothesis 1: Level of hope in high school seniors is positively related to postsecondary educational expectations.
- Research Hypothesis 1A: Levels of hope in high school seniors are positively related to the certainty of the subjects' expectations to attend a 4-year college or university in the next year.
- Research Hypothesis 1B: Among high school seniors not planning to attend a 4-year college or university, levels of hope are positively related to the subjects' certainty of attending a community college in the next year.
- Research Hypothesis 1C: Among high school seniors not planning to attend a 4-year college or university or a community college, levels of hope are positively related to the subjects' certainty of attending a vocational school in the next year.
- General Research Hypothesis 2. Overall coping efficacy in high school seniors is positively related to postsecondary educational expectations.

- Research Hypothesis 2A: Overall coping efficacy in high school seniors is positively related to the certainty of the subjects' expectations to attend a 4-year college or university in the next year.
- Research Hypothesis 2B: Among high school seniors not planning to attend a 4-year college or university, overall coping efficacy is positively related to the subjects' certainty of attending a community college in the next year.
- Research Hypothesis 2C: Among high school seniors not planning to attend a 4-year college or university or a community college, overall coping efficacy is positively related to the subjects' certainty of attending a vocational school next year.

Definitions

For the purpose of this study, the following definitions were used.

- Agency thinking: as measured by the Future Scale, the psychological reservoir of mental energy, determination, and commitment that assists an individual to move toward a goal (Snyder, McDermott, Cook, & Rapoff, 2002); sense of mental energy that, over time, helps to propel an individual toward a goal (Snyder, 1994).
- Agentic thinking: used synonymously with agency thinking, the ability to evaluate the capacity to continue movement toward a goal (Snyder, Cheavens, et al., 1997)
- Coping: a response aimed at diminishing the physical, emotional, and psychological burden that is linked to stressful life events and daily challenges (Snyder & Dinoff, In Snyder, 1999)

- Coping efficacy: as measured by the Coping Efficacy Index, a perceived sense of confidence, motivation, and capability to cope effectively with stressful personal and interpersonal problems in life (Milford, 2002)
- Efficacy expectation: according to self-efficacy theory, the beliefs of individuals that they can produce the necessary behavior to bring about outcomes (Bandura, 1997)
- Goal: according to hope theory, the result toward which effort is directed; an object, experience, or outcome that people imagine and desire in their minds; something to be obtained or attained (Snyder, 1994)
- High school seniors: individuals in the U.S. secondary school system who have attained sufficient academic credits to be in the final year of high school, typically grade 12
- Hope: as measured by the Future Scale, the sum of mental willpower (agency) and waypower (pathways) that individuals have for goals (Snyder et al., In Snyder, 1999); “the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways” (Snyder, 2002, p. 249)
- Human agency: the perception of power to originate actions for given purposes (Bandura, 1997)
- Other-control/other-capability (OCL): a subscale of Coping Efficacy Index indicating level of compulsivity, conscientiousness, perfectionism, cooperation with others, and task orientation (Milford, 2002)
- Other-confidence (OCF): a subscale of Coping Efficacy Index indicating

level of compliance to others' expectations, trust, and cooperation with others (Milford, 2002)

- Interpersonal coping efficacy (IC): as measured by the Coping Efficacy Index, individual's perception of adequacy with other-directed behaviors, characterized by trust, support, and acceptance of others (Milford, 2002)
- Other-acceptance/other-care (OAC): a subscale of Coping Efficacy Index indicating level of empathy, caring support, and placating (Milford, 2002)
- Optimism: the expectation of individuals that good things will happen to them (Carver & Scheier, In Snyder, 1999)
- Outcome expectations: according to self-efficacy theory, an individual's belief that a given behavior will yield an expected outcome (Bandura, 1997)
- Overall coping efficacy (OC): as measured by the Coping Efficacy Index, perception of significant effectiveness in dealing with personal and interpersonal problems
- Pathways thinking: as measured by the Future Scale, an individual's perceived capacity to seek routes to a target goal (McDermott & Snyder, 1999)
- Self-confidence (SCF): a subscale in Coping Efficacy Index indicating level of anticipation of coping actions that lead to valuable results and expectation to succeed (Milford, 2002)
- Personal coping efficacy (PC): as measured by the Coping Efficacy Index, individual's perception of adequacy with self-directed behaviors that are independent of concerns with others' needs or wants, characterized by self-confidence, self-care, and high self-esteem (Milford, 2002)

- Self-acceptance/self-care (SAC): a subscale in Coping Efficacy Index indicating level of appropriate evaluation of actions and healthy pride (Milford, 2002)
- Self-capability/self-control (SLC): a subscale in Coping Efficacy Index indicating level of extroversion, appropriate expression, leadership and persuasion (Milford, 2002)
- Postsecondary educational expectations: as measured by the Survey of Postsecondary Plans, the individual's anticipated plan for continued formal education immediately following high school graduation
- Self-efficacy: the beliefs in the capability for individuals to perform in ways that give them control over events that affect their lives (Kazdin, 2000)
- Self-concept: composite view of self that is formed through direct experience and evaluations adopted from significant others (Bandura, 1997)
- Self-esteem: self-evaluation and judgment of self-worth (Bandura, 1997)
- Social cognitive theory: the psychological theory that defines human behavior as a dynamic and reciprocal interaction of personal factors, behavior, and the environment (Bandura, 1997). Response consequences of a behavior are used to form expectations of behavioral outcomes, prompting the ability to predict subsequent outcomes of behavior.

CHAPTER TWO

Literature Review

Introduction

The discussion for this study was based upon literature associated with levels of hope and coping efficacy in adolescents and the decisions students make for education following high school graduation. Literature included in the review related to the development of emotional competency, especially for adolescents; hope, hopelessness, and strategies to engender hope; self-efficacy, especially in those areas related to adolescents such as academics and career development, and strategies for engendering self-efficacy; a comparison of hope, self-efficacy and related constructs; coping and coping efficacy; and the postsecondary educational expectations of high school seniors.

Development of Emotional Competencies

The development of emotional competencies in adolescents can be a factor in influencing their choices about pursuing education. Adolescents are faced with a myriad of decisions as they approach the final year of high school while dramatic psychological and physiological changes are occurring within. High school graduation carries for the adolescent society's expectations for full-time employment, postsecondary education, or a combination thereof. The way the adolescent envisages the transition and subsequently plans for the years immediately following high school can mean the difference between

an anxious or salubrious adulthood (Creed, Muller, & Patton, 2003). The adolescent's development of emotional competencies and perception of self contribute to the individual's motivation to integrate with society and perform well. Healthy emotional competency can mean comfort and skill at making important decisions for the future, including a decision about education post high school.

Erikson (1968), in addressing educational and career planning, determined that the quest for an occupational identity is found to be of greatest concern for young people. Erikson's classic work suggested eight stages of emotional development that impact satisfaction and the choices the individual will make throughout life, including educational training for a career. The sequential stages, or crises, as termed by Erikson, were trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt, industry vs. inferiority, identity vs. role confusion, intimacy vs. isolation, generativity vs. stagnation, and ego integrity vs. despair (Erikson, 1963). Erikson's theory was grounded in the belief that if the individual failed to successfully develop through one of the stages, the result was emotional immaturity and lack of emotional competence.

Worrell and Hale (2001), in a study of hope in the future and school climate, discussed certain risk and protective factors for school completers and drop-outs. The participants for this study were 97 at-risk students in the San Francisco Bay area. Risk factors were measured via grade point average and self report. Protective factors were measured by the Self Perception Profile for Adolescents (SPPA) and the Instructional Climate Inventory. Intercorrelations among risk and protective factors were tested using the Pearson product-moment correlation coefficient. MANOVAs and post hoc discriminant function analyses were also used to compare risk and protective factors for

both graduates and dropouts. The researchers reported statistically significant intercorrelations on risk factors ranging from .14 to .38 and statistically significant intercorrelations among protective factors from .07 to .35. Even with generally low intercorrelations, the researchers noted some patterns. For example, the importance of attending college was found to be correlated positively with scholastic competence and anticipation of a good job; whereas school climate was not correlated as a protective factor.

Supporting literature for the study by Worrell and Hale (2001) reinforced Erickson's theory of adolescent development. The researchers noted that successful resolution of Erikson's fourth crisis (industry vs. inferiority) for a school-age child resulted in perceived competence and anticipation of adolescence. Just as significant to the study of adolescent development was the fifth crisis which Erikson termed identity vs. role confusion, experienced approximately between the ages 12 to 18 years. In this crisis, individuals take a self inventory, asking the question about who they are, the answer to which is dependent upon resolution and integration of the earlier conflicts. Successfully developing through this conflict can provide the individual with clear identity, laying the foundation for the ability to plan for the future and set educational goals.

Kroger (2000) expanded Erikson's theory, noting the possibility of multiple styles for adolescents engaging in the process of identity formation. Schwartz (2002), in his summary of research on identity formation, compared and attempted to integrate Erikson's theory of identity development, a social psychological perspective, with a self-construction theory. While Erikson presented a period of identity formation for youth that

was characterized as passive receptivity, the constructivist theory found the individual actively seeking individuation.

Also related to identity formation, Lee (2002) conducted a comprehensive case study to examine the relationships between six 12-year old peers, especially concerning how peer relationships impacted the development of academic and creative talents. Lee's qualitative research supported both Erikson's and Benjamin Bloom's beliefs that young people ages 12 to 18 years are engaged in establishing social and occupational identities with a great deal of influence from their peers. These researchers attempted to address the question as to whether decisions adolescent individuals made about the future were a product of peer influence or a sense of self.

Gender and identity development was a variable explored by some writers. Some criticism was levied against Erikson's theory of psychosocial development in its inherent sexism (Horst, 1995; Markstrom & Kalmanir, 2001). Even though acknowledging that the theory was a product of its time, the authors questioned whether young men and women equally achieve clear identity. The issue would have implications for gender and the acquisition of emotional and cognitive competencies, including self-esteem, hope, and self-efficacy.

Goleman (1995) popularized the term *emotional intelligence* in the last decade. Goleman credited Peter Salovey, Howard Gardner, and Jack Block with contributing to the domains of emotional intelligence. The domains included knowing one's emotions, managing emotions, motivating self, recognizing emotions in others, and handling relationships. Goleman determined that emotional intelligences impact all arenas of life, citing one study that determined that students who did poorly academically lacked at least

one of the major elements of emotional intelligence. An important emotional intelligence, according to Goleman and his followers, was hope which “plays a surprisingly potent role in life, offering an advantage in realms as diverse as school achievement and bearing up in onerous jobs” (p. 87). He further noted that hope is a tool that assists people in overcoming anxiety, depression, and defeatism.

Hope

Scholars have long sought a definitive meaning for the construct *hope*. References to hope in the works of John Dryden, Francis Bacon, and Benjamin Franklin presented hope as a harmful illusion with empty promise (Snyder, 1994). Hulme (2001) credited German philosopher Ernst Bloch with creating a useful synonym for hope. Bloch referred to “anticipatory consciousness” as the individual’s ability to think beyond the realm of what already exists (p. 41).

In an effort to refine the meaning, Snyder (2002) defined hope as “the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways” (p. 249). His hope model was built upon the three basic components of goals, willpower, and waypower. (Snyder’s later work revised these terms to agency thinking and pathways thinking, respectively.) Goals, Snyder (1994) posited, are “any objects, experiences, or outcomes that we imagine and desire in our minds” (p. 5). He described goals in terms of anchor points for hopeful thinking and desired end points of action (Snyder, Cheavens, & Simpson, 1997; Snyder et al., 2002). In his earlier work on hope theory Snyder confined the meaning of goals involving hope to those that fell between that which one deems impossible and that which feels certain. If the

probability of obtaining a goal approached either 0 or 100 percent, the outcomes were over-determined and hopeful thoughts were irrelevant. In his later work, however, he acknowledged that the individual possessing high-hope may alter seemingly impossible situations to reach the unreachable (Snyder, 2002).

According to Snyder et al. (2002), goals and goal pursuit are essential for life. McDermott and Snyder (1999) stressed that hope is an active process encompassing the three components goals, waypower, and willpower. Attainment of a goal is determined by one's waypower, his perceived capacity to seek routes to the target goal, and willpower, the driving force that motivates. The components waypower and willpower have been renamed pathways and agency, respectively, by hope theorists. Pathways thinking relates to (a) sending and perceiving external stimuli, (b) learning temporal linkages, and (c) forming goals. Agentic thinking is composed of (a) self recognition, (b) perception of self as an instigator of actions, and (c) forming goals (Snyder, Cheavens et al., 1997). Pathways thinking leads to the capacity to generate one or more workable routes to a goal, a particularly important attribute when challenges are viewed as obstacles. Agency thinking provides the motivation and tenacity to pursue the goals and stay the course (Snyder & Shorey, 2002).

Snyder et al. (1999, 2002) stressed that hope lives in our minds, and is, thus, a cognitive process. Proponents of this cognitive motivational hope theory emphasize the importance of both willpower (agency thinking) and waypower (pathways thinking), each necessary and neither sufficient alone for effective goal pursuit (Curry et al., 1997; McDermott & Snyder, 1999; Snyder, 1994; Snyder, 2002; Snyder et al., 2003). The individual with agency thinking but who lacks pathways thinking is described by Snyder

(1994) to have necessary mental energy but insufficient perception about workable routes to a goal. Conversely, he who expresses lofty ideas about pathways or workable possibilities but harbors low willpower is at risk for quickly rejecting his capacity to start or stay with a goal project.

Psychologists who embrace the theory of hope assume a cognitive developmental process beginning within the first six months of a child's life. Children experience sensations and perceptions in becoming alert to their environment. They begin to form linkages, coming to understand that certain things seem to be followed by other events, reducing the randomness and chaos of their world. They then become aware of goals, learning that certain actions can result in acquiring a target for their desires, such as a toy or food. These three processes are the beginning of waypower or pathway development, finding the routes or roadmaps to the individual's goals (Snyder et al., 2002).

The next phase of hope development is self-recognition, apparent in children by age one. Snyder et al. (2002) noted that an important marker for self-recognition occurs at about 18 months when children learn to employ pronouns *I* and *me* to distinguish them from others. As toddlers discover that they are the source for things to happen and subsequently develop language to express volition, they learn by age 24 months that they are instigators. The development of self-recognition and recognizing self as an instigator lay the foundation for the development of a sense of agency. Thus, by year three the core for hopeful thinking is established. From age three to six, with appropriate connection to a caregiver and development of language to help them interact with the environment, children learn that the pursuit of goals occurs in a social context. Basic lessons and practice in hopeful thinking occur throughout the preschool, middle, and adolescent years

(Snyder, Hoza, et al., 1997). Hopeful thinking is an essential ingredient in both intrapersonal and interpersonal relationships (Snyder et al., 2002).

Several articles authored or co-authored by Snyder provided extensive background to the theory and its development. In one, he spoke of hope metaphorically as a rainbow, noting that the multi-colored prisms of a rainbow lift one's spirits and help the individual to think of what is possible, as does hope (Snyder, 2002). In this tome Snyder gave credit to Karl Menninger as an early influence in the development of his theory, especially in his coming to recognize that thinking rather than emotion was at the core of hope. Therefore, while Goleman (1995) considered hope one of several necessary emotional intelligences, Snyder viewed the construct as cognition.

Further, Snyder (2002) broke down the components of hope (goals, agentic and pathway thinking) more specifically. He noted that goals are classified either as positive outcome, those things one wants to achieve, or negative outcome, those to be avoided. Snyder also described goals as temporal, noting that one makes both long-term and short-term goals, and that they can be categorized as maintenance or enhancement goals. The theorist provided elaborate illustration of the iterative as well as additive nature of pathway and agency thinking during the goal pursuit sequence.

Snyder (2002) presented applications for hope theory to psychological adjustment and psychotherapy. In this discussion, he cited hope studies with college students, Vietnam veterans, depressed adults, and children. Of importance to psychological health was a finding underpinning the theory that high-hope individuals seek out resources, most often significant people, when faced with a problem. High-hope individuals are

flexible and resourceful when faced with blocks to their goals. Hope prompts tenacity, which can be a motivator for extensive educational goals.

Addressing the school psychology community, Snyder et al. (2003) reviewed over thirty studies conducted during the past decade using the Hope Scale and Children's Hope Scale. For research purposes, Snyder classified those children who scored in the top third of the Hope Scale or Children's Hope Scale (in both agency and pathways) as high-hope children. Conversely, those whose score distributions placed them in the bottom third were classified as low-hope children. Issues germane to working with school children were reflections about hope, self and the future, academic and athletic achievement, social competence, and individual differences related to race and gender.

Summarizing this relevant research, Snyder et al. (2003) noted that evidence pointed to higher hope thinking in children correlating positively with perceived self confidence and self-esteem and negatively with depression. The research reflected these high-hope children focusing on success in the future and exhibiting life goal orientation. Additionally, the authors reported findings that high-hope students reported greater scholastic, social, and creative competencies. Consequently, these subjects tended less to denigrate their abilities when faced with academic failure. Instead, they attributed the failure to progress toward an academic goal to a lack of perseverance or misjudging strategies for study or test taking.

Key to the findings in this summary by Snyder et al. (2003) was the concept of adaptability, an apparent characteristic of high-hope children. The authors cited a number of articles that substantiated findings that higher-hope grade school children and high school students score higher on achievement tests and have higher grade point averages

(Snyder, Hoza et al., 1997; Curry et al., 1997; Snyder, 2002). The authors of this review summarized findings related to hope, gender, and race. They reported that research has found no differences between girls and boys or men and women and hope. Further, the authors stated that at least ten studies have supported cross-cultural applicability of the two-factor hope theory. Certainly, they acknowledged that children and adults across ethnic groups experienced greater obstacles to goals, yet occasionally Caucasian subjects have indicated lower hope scores than a particular minority.

Substantial research is reflected in the literature regarding academic success and hope theory. Snyder and Shorey (2002) opined that hope was not significantly related to intelligence. Rather, hopeful thinking is related to “achievement, problem-solving ability, and perceptions of scholastic competence” (p. 3). In addressing test anxiety, Snyder (1999) described several studies using the Hope Scale, Children’s Hope Scale, and the State Hope Scale. He noted that the results of these studies consistently determined that lower hope scores related to higher test-related anxieties. Both self and others expectations have placed greater value on the outcome of tests for students at all educational levels. For many students, however, repeated and intrusive counterproductive thinking about tests and the significance of scores results in goal blocking thinking. Snyder suggested using one of the hope scales with such students, applying the results to focus on subsequent interventions to assist the learner in acquiring new strategies for taking tests (pathways thinking) or to develop skills in refuting the goal blocking thinking (agentic thinking).

Compared to the academic arena, research was less prolific on the topic of hope and high school student athletes (Snyder & Lopez et al., 2003). The authors did cite three

studies, however, each finding significantly better athletic performance among high-hope athletes. One study reported that high-hope children were less likely to quit their sports.

Research on hope and athletics conducted by Curry et al. (1997) encompassed three studies attempting to ascertain whether athletes held higher hope thinking than non-athletes and whether higher hope among athletes related to higher academic achievement. The first study compared scores for all undergraduate National Collegiate Athletic Association (NCAA) Division I student athletes enrolled at a northern university against non-athletes at the same institution. Using the Hope Scale and the Self-Perception Profile for College Students (SPPCS), a 2x4x2 analysis of variance was performed. Findings indicated that the sample athletes were higher than the non-athletes in hope but not global self-worth. Most importantly, the study indicated that hope significantly predicted semester GPA but global self-worth did not.

Another study attempted to determine whether hope was predictive of actual sport achievement and used as its sample female cross-country runners at the same university. Measures included the Dispositional Hope Scale, State Hope Scale, State Self-Esteem Scale, State Sport Confidence Scale, and the State Profile of Mood States. Two hierarchical maximum likelihood regressions were performed on the criterion of running achievement. The results reflected that both dispositional and state hope were predictors of actual sports achievement, but the other psychological state indices were not.

Culminating this trilogy was the study using female NCAA athletes representing all Big Eight Conference schools. The purposes of the study were to determine whether affectivity might serve as an alternate variable and to test the replicability of Study 1 findings about athletes and higher hope. Measures included the Dispositional Hope Scale,

a ten-word affect word association scale, the Physical Ability Rating Scale, and measures of the season's achievements. Results indicated that there was a trend for athletes who indicated worrying style to also perform poorly. The findings also supported Study 1, in that the athletes sampled had higher hope scores than non-athletes. The preponderance of research in the area of hope relating to athletic performance was conducted at the college level, indicating a need for such studies among children and high school students.

Snyder's review of hope research demonstrated the theory's application to academics, athletics, physical health, psychological adjustment, and psychotherapy (Snyder, 2002). Another hope study attempted to relate hope to an individual's self-perception (Onwuegbuzie & Daley, 1999). Explaining self-perception as a cognitive set that involves one's ability to use achievement and success as a precursor to meet challenges in other areas of life, the researchers attempted to determine which dimensions of self-perception related to agency and pathways. The Hope Scale and Self-Perception Profile for College Students (SPPCS) were administered to 96 graduate students, and correlations performed between the dimensions of hope and self-perception were examined. Results indicated a statistically significant relationship between the agency scale and 5 of the 13 sub-scales of self-perception, and pathways scores were related to 3 self-perception scales. Discussion noted that the correlational study did not assess causal relationships. The researchers did interpret, however, that low agency or pathways thinking reduced self-perception, and low self-perceptions reduced agentic and pathway thinking. They called for further research in the academic areas to explain the relationships.

The development of hope in children can portend their responses to challenges of all kinds as adolescents and adults. Snyder posited that agency and pathways thinking were set in the child's first two to three years (Snyder, 1994; Snyder, Hoza et al., 1997). If hope is nurtured for the young child, that cognition should be stable during the latter stages of his youth. Snyder, Hoza et al. defined children's hope as "a cognitive set involving the beliefs in one's capabilities to produce workable routes to goals (the pathways component), as well as the self-related beliefs about initiating and sustaining movement toward those goals (the agency component)" (p. 401). Similar to Erikson's assertion that the acquisition of a stage of development is dependent upon success in resolving the previous stage, hope theorists noted the additive nature of emotional and cognitive competence. With success in goal pursuits, the child should experience perceived competence and control. Upon this competence and control self confidence, self-esteem, and coping efficacy are built.

Snyder, Hoza et al. (1997), noted the upset experienced by children when they encountered obstacles to their goals. Perceived barriers or goal-blockers elicited negative emotions, while successful pursuit of goals, especially when experienced in spite of impediments, resulted in positive emotions. The iteration of the pattern established a concept of goal pursuit for later years. Thus, the theorist and colleagues argued that hope and its impact on goal seeking precedes self-esteem. The degree to which children successfully attain their goals and overcome obstacles should guide their self-worth rather than the reverse.

Snyder, Hoza et al. (1997) determined that agency and pathways as related to goal formation for toddlers could be measured only by observations. They deduced, however,

that by second grade children had developed language to understand and respond to questions about themselves. With the desire to more accurately measure hope in children, Snyder and colleagues developed, in the mid 1990s, a brief self-report instrument of dispositional hope, entitled Children's Hope Scale, for use with children 8 to 16 years old (Snyder, Hoza et al., 1997). Norming administrations with several sets of children reflected no age, gender, or racial differences and no significant correlation with intelligence, as measured by verbal scores. The norming administrations did determine that the Children's Hope Scale provided moderate predictive power in relation to achievement with use of the Iowa Test of Basic Skills. The authors' findings also indicated that higher hope children perceived themselves invulnerable to sources of harm, perhaps with some distorted thinking. These distortions, however, found the higher hope children thinking well of themselves in undertaking normal childhood tasks and activities.

Snyder, Cheavens et al. (1997) asserted that one tenet of cognitive motivational hope theory setting it apart from others was that hope is sustained in the context of larger groups. While many theories of self motivation and development focus on person-centered growth, the authors' thesis was that hope had its roots and functions in promoting collective well-being. They cited several studies that demonstrated high-hopers were likeable and down-to-earth in relationships with peers. The authors noted consistent findings that high-hope children prefer difficult goals (stretch goals), and they tended to break goals into increments or smaller sub-goals (stepping). High-hope individuals were found to enjoy the process of goal pursuit as much as the end itself, truly embracing the "goal game" (p. 110). The authors noted the benefit of high-hope thinking

for society constructs of procreation, protection, and socialization. They observed that historically individuals who worked toward their goals have made important contributions to society. Thus, high-hope contributed to goal attainment, and goal attainment contributed to both individual and collective improvement. The authors found no evidence of a relationship between high-hope and narcissism and reiterated that research to date has found no difference in gender and hope.

Hopelessness and Youth

The adolescent's world view has been impacted by childhood experiences and the individuals who played a part in those experiences. The cognitive set and emotional competencies were influenced by the degree to which the child felt safe and nurtured. Coles (1998) spoke of the "moral archeology" of children in asserting that experience does shape character (p. 59). He contrasted the child who was well-nurtured but aware that there is disappointment in life, acknowledging that appetites had to be curbed as well as satisfied, with the child who has never felt basic satisfaction. The latter child, who has been denied too much, will learn to expect less and less, feeling literally unfulfilled and suspicious. Coles noted these "qualities of the mind obviously set in motion by chronic disappointment at the hands of others" (p. 87). Snyder (1994), McDermott and Snyder (1999), Snyder, Hoza et al. (1997), and Snyder, McDermott et al. (2002) emphasized a nurturing caregiver as an essential element in the development of hope in the young. Snyder, Lopez et al. (2003) discussed interpersonal struggles that ensued for children with low hope as a result of early experiences. They found that low hope blocked goal-related thinking, leading to frustration, and often resulting in aggression against others.

During the early years of hope theory development, several studies attempted to determine how disappointment at the hands of others influenced hope and goal attainment. Hinton-Nelson, Roberts, and Snyder (1996), in a study of middle school children, attempted to assess exposure to violence as antecedent to the development of pathways and agentic thinking. Instrumentation included a demographic survey, the National Institute of Mental Health Screening Survey of Exposure to Community Violence, the Children's Hope Scale, and additional questions to assess participants' perceptions about vulnerability to victimization. The latter two questions asked the students what they thought would cause their own death and what would cause the death of the average American. The researchers selected the sample with the assumption that they had been exposed to violence, and responses confirmed these experiences for the subjects. Participants had been exposed to violence in their community through direct experience as a victim, witnessing violent acts, or through association with others who had been victimized. A series of hierarchical regression analyses were conducted to assess relationships between exposure to violence and the participants' levels of hope and perceptions of vulnerability to victimization. The research results determined that in spite of exposure to violence, the students' overall levels of hope were comparable to other groups. Further examination, however, reflected that adolescents who had less direct experience with or exposure to violence reported higher levels of hope, and they tended to predict non-violent deaths for themselves. The authors noted that this might have been a reflection of the adolescent's sense of invulnerability. This finding notwithstanding, they interpreted results to convey young people could sustain high-hope, even in the face of crisis, as long as goal pursuits were not thwarted. The study was important in that it

helped to dismiss the notion that inner-city youth want nothing out of life and reinforced the premise that even youth reared in a culture of violence and facing the prospect of violent death can harbor hopeful attitudes and plan for the future. As with other studies, a modicum of success in goal attainment was key to hopeful thinking. The study did not address postsecondary educational plans or aspirations for the subjects.

Bolland (2003) focused on inner-city youth and their feelings of hopelessness and high-risk behaviors. The author reflected research conducted in previous decades examining resilience among inner-city youth. He juxtaposed the extreme dispositions of resilience, the capacity for successful outcomes despite threats and challenges, and hopelessness, the expectation that desired outcomes will not occur. Bolland surveyed 2,468 adolescents ages 9-19, residing in low-income neighborhoods, half of which was public housing. In scheduled group administrations, participants responded to the Hopelessness Scale for Children, to which were added items in an effort to create an additive Brief Hopelessness Scale. The survey also included a scale for risk behaviors including suicidal ideation and attempt, carrying a weapon, substance use, sexual intercourse, attempts to become pregnant, and accidental injury.

Bolland's (2003) study demonstrated how feelings of hopelessness were associated with every domain of risk behavior. He found that hopelessness affected males more profoundly than females. The male sample reflected 46.8% (95% CI = 0.441, 0.495) reporting high-hopelessness, while 26.9% (95% CI = 0.244, 0.294) females in the study reflected high-hopelessness. The male population also revealed steeper trajectories of reported risk behaviors. The researcher did note several limitations, including the specific geography of the sample and inability to generalize and the self-report format,

limited by accuracy of subjects' responses. Bolland proposed that his findings might lead public health professionals to explore hopelessness among inner-city adolescents.

Just as Snyder embraced hope as cognition, Bolland referred to hopelessness as a cognitive style which might be altered through individual and group cognitive development and therapeutic interventions. He cautioned that the hopeless youth will not adopt a prescription to healthy behaviors when he cannot imagine a positive future. Thus, a successful intervention program must include programs that assist participants to better understand their cognitive-affective responses to adversity as well as skill building and efficacy-enhancing.

As with other studies on hopelessness, Bolland did not address the postsecondary educational planning of subjects. It might follow that youth who see little chance of a long life and who embrace high-risk lifestyles will not plan for postsecondary education and careers. Rigorous documentation, however, is needed to connect low hope or hopelessness to lack of educational expectations for adolescents.

Engendering Hope

If hope is a paramount factor in the adolescent's success, how can low-hope and hopeless youth expect to demonstrate success and experience future thinking? Snyder et al. (2002) wrote extensively about the use of narratives to nurture hopeful thinking. They advocated giving voice to very young children to tell their stories and encouraged developing daily scripts that describe their successes in making decisions and overcoming obstacles. Exposure to the stories of successful people through reading biographies of historical figures was another key strategy suggested by the authors.

Snyder and Shorey (2002) asserted that hope can be engendered using several strategies, even in the most bereft adolescent. Several strategies for promoting high-hope were presented by the authors. High-hope teachers can establish atmospheres of learning that promote hopeful thinking and goal acquisition. Positive adult role models, whether or not related to the youth, can be sources of motivation. Many high-hope adults have reported that an adult role model spent a good deal of time with them. Adult role models also can demonstrate goal pursuit through their own pathway and agentic thinking and, thus, impart that concept to the youth. The researchers also noted the power of certain disciplines to engender hope. They reported that “few endeavors have the potential to impact young people as much as does the teaching of psychology at the secondary and post-secondary levels” (p. 9). According to these educators, the traditional psychology curricula have focused on maladaptive thinking, behavior, and development. Positive psychology adds to the young people’s knowledge the processes that shape the way they think, feel, and behave, and through that understanding, they can learn to make rewarding choices. Recognizing themselves as instigators and experiencing successes in pursuing targets can portend openness to thinking about postsecondary goals.

Self-Efficacy

Instinctive to human nature is the drive to control events in one’s life. According to Bandura (2001), “The capacity to exercise control over the nature and quality of one’s life is the essence of humanness” (p. 1). The individual attempts to exert influence over the environment in order to bring about desired outcomes and to avoid undesired ones. Kazdin (2000) added to the empowerment discussion in noting, “Perceived self-efficacy

is people's beliefs in their capabilities to perform in ways that give them control over events that affect their lives" (p. 212). This perception of capability lays a foundation for the formation of personal agency and prompts the incentive to make decisions and produce action. The individual who lacks a sense of personal agency has little incentive to make goal decisions and act upon them. Conversely and applied to the academic arena, the students who perceive that they have control over their learning environment will be more likely to perform well academically (Snyder & Shorey, 2002).

Social cognitive theory conveys four major sources of individual perceived self-efficacy: (1) mastery experiences, (2) social modeling, (3) social persuasion, and (4) physical and emotional states (Kazdin, 2000). Successful experiences contribute to the individual's sense of mastery experience and a sense of resiliency for overcoming obstacles. Bandura (1997) insisted that prior mastery experience is the most powerful source of efficacy. Social modeling occurs as individuals observe others like themselves succeeding by sustained effort. These individuals also benefit from the knowledge and skills conveyed by the model, especially in managing environmental demands. Individuals can be influenced further through social persuasion, messages conveyed that they have what it takes to succeed and assistance in arranging the environment to maximize success. Finally, individuals come to build self-efficacy through accurate and realistic judgment of their physical and emotional capabilities in selected tasks. Betz (2004) referred to the last source as emotional arousal, wherein the self-efficacious individual learns to lower levels of anxiety related to a task or experience.

While the cognitive processes of hope and self-efficacy differ in scope and application, each espouses the essential ingredient of personal agency. Bandura expanded

agentic thinking in describing the nature of agency, positing that it is through this cognition that one intentionally makes things happen (Bandura, 2001). The core features of human agency, according to social cognitive theory, are (a) intentionality, (b) forethought, (c) self-reactiveness, and (d) self-reflectiveness. Intentionality conveys the concept of choice. Bandura notes that outcomes are consequences of agentic acts rather than characteristics of agency. He termed forethought as anticipatory self-guidance, noting that a forethoughtful perspective provides direction for the individual, adds coherence, and offers meaning to life. Bandura asserted that the forethoughtful person constructs outcome expectancies based upon observed conditional relations of the present applied to future planning. "The ability to bring anticipated outcomes to bear on current activities promotes foresightful behavior" (p. 7).

As a planner and self-motivator, the sense of human agency prompts self-reactiveness. Bandura (2001) reported that personal agency involves more than the deliberate ability to make choices. In addition, individuals develop the ability to give shape to appropriate courses of action, motivating and regulating their execution. Self-regulation of goals is influenced by the proximity of the goals, and the human agent is challenged to employ hierarchical strategies to achieve goals, similar to the stepping suggested by Snyder (1994). Finally, Bandura observed the human agent to practice self-reflectiveness, continually verifying the adequacy of thought and action. Skill is learned in self-evaluation of experiences.

Bandura's (2001) model of social cognitive theory can be applied to the adolescent's quest for human agency in approaching educational plans:

Efficacy beliefs also play a key role in shaping the courses lives take by influencing the types of activities and environments people choose to get into. Any factor that influences choice of behavior can profoundly affect the direction of personal development. (p. 10)

Activities and environments for high school seniors include the type of post secondary education these individuals select.

Adding to the literature related to choice, Aleksyuk (1996) described human agency as power. He posited that living systems employ power to get useful work done and that power is the driving force of life for humans. The author defined personal power as “the ability of the individual to take effective action.” Further, he noted that a sense of personal power is “the perception by the individual that he or she has the ability to take effective action” (p. 35).

This drive for control is perhaps more apparent during the adolescent development than at any other time in one’s life. The period of life between 13 and 19 years of age is a crucial transitional phase for individuals. They are incorporating the values and standards of conduct learned in the family-of-origin and attempting to assimilate those with roles of adulthood. They must give serious consideration to what they want to do with their lives following this phase, including decisions about postsecondary education, and they are becoming aware of personal coping strategies to deal with traditional stressors as they make these decisions. All the while they strive to exert control over the environment. Bandura (1997) noted, “Most adolescents manage the traditional stressors in ways that sustain or increase their sense of personal competence” (p. 178).

In the efficacious person, beliefs regulate choice of behavior, aspirations, mobilization of effort, and affective reactions (Bandura, 1997), and human functioning is regulated through the processes of cognition, motivation, emotion, and choice (Kazdin, 2000). As these processes are employed in highly efficacious adolescents, they can envision themselves successfully negotiating obstacles, and thus become comfortable in setting goals. Self-efficacy assists teens in predicting events and exercising control over those events. The processes further facilitate the exercise of control over disturbing and dejecting ruminations, reframing them as challenges rather than threats. In applying social cognitive theory to the phase of adolescence traditionally marked by high school graduation, the adolescent can imagine options and possess a sense of agency to attempt those. “In self-development through choice processes, destinies are shaped by selection of environments known to cultivate valued potentialities and lifestyles” (Kazdin, 2000, p. 213).

Success in a given task or process is owed in part to one’s talent, skill, and ability. Of greater importance, according to some theorists, is the individual’s perception of ability, skill, and talent. Aleksyuk (1996) drew a distinction between ability and a sense of efficacy. He noted that actual personal power is ability while a sense of personal power, or efficacy, is the perception that one has ability. According to Bandura (1997), the individual’s level of motivation, affective states, and subsequent behaviors are based more on what one perceives about the self than on what is objectively true. Bandura described the efficacious individual as possessing a sense of human agency, perceiving the power to make things happen. He made a clear distinction between the process and the result. Possessing agency is more than reaching one’s goal; rather it is the disposition

of power to initiate the necessary action for a purpose and to stay the course in the pursuit. Possessing personal agency leads to high self-efficacy, defined by Bandura as “the belief in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3).

Perhaps Bandura (1997) drew the closest connection between self-efficacy and postsecondary planning for high school students. He determined that personal convictions of efficacy, aspirations, and standards are the principal determiners of human action. He observed that the individual would be unprepared to make effort toward important goals if not supported by a personal conviction of the ability to have an effect upon a course of events. Bandura observed that this state was particularly true for adolescents who demonstrated putting themselves to the test and taking risks in various aspects of life, each important elements of identity formation.

Self-Efficacy and Academics

A great deal has been written about self-efficacy and its impact on student performance. Bandura, Barbaranelli, Caprara, and Pastorelli (1996) attempted to analyze psychosocial factors associated with self-efficacy and their influence on student achievement. A study of Italian adolescents between the ages of 11 and 14 years old, their parents, and teachers, investigated whether (a) socioeconomic status of parents, (b) parental beliefs in their capacity to cultivate and nurture achievement, (c) parental self-efficacy, and (d) the child’s aspirations and academic self-efficacy were determinants of achievement. Measures included surveys of the fathers’ socioeconomic status, a scale of

children's efficacy beliefs, academic records, and interviews with mothers and teachers of the children.

Among the domains of student efficaciousness in the study by Bandura et al. (1996) were perceived efficacy for academic achievement, self-regulated learning, leisure and extracurricular activities, prosocial behavior, and self-regulation to resist peer pressure leading to high-risk activities. Means for the domains were derived, and a matrix was constructed of the relationships among the psychosocial factors and academic achievement. Researchers found few correlations with age, owed to the narrow range. Gender differences were observed, with girls demonstrating more prosocial disposition, higher academic aspirations, and less moral disengagement than boys. Self-efficacious parents were found to hold higher academic aspirations for their children, relating to their children's' perceived academic self-efficacy and aspiration, prosocial behavior, and high scholastic achievement. The researchers found the high academic self-efficacy of the children linked to their achievement directly through academic aspirations and indirectly through their prosocial conduct. Prosocial behavior was characterized by such behaviors as helpfulness, sharing, kindness, and cooperativeness. Prosocial conduct was separate from social self-efficacy, which measured the children's beliefs in the capabilities to form and maintain appropriate social relationships and manage conflict. Social self-efficacy was found not directly related to academic achievement, but it indirectly promoted academic aspirations and reduced vulnerability to depression.

Bandura et al. (1996) underscored the importance of the educational vision parents have for their children, preceded by the self-efficacy of the parents. Also underpinning this work was the tenet that children who believe in their control over their

academic pursuits will achieve success in these endeavors. Painting with a broader brush, the researchers determined that agentic self-belief and self-regulation enlist psychosocial processes that influence academic goals. Thus, self-efficacy beliefs alter the quality of peer preferences and academic strategies that either promote or diminish engagement in scholastic endeavors. The age of subjects would preclude generalization to a population of older adolescents. Research on older adolescents, therefore, is needed to determine if parental and student self-efficacy and aspirations contribute to academic performance and the postsecondary plans of such students.

Yet another study of Italian adolescents was conducted in an effort to determine whether self-efficacy changed during the teen years, whether self-efficacy was influenced by gender, and how or if the constructs of self-image and self-efficacy overlapped (Bacchini & Magliulo, 2003). Subjects were 675 students, ages 13 to 19 years, selected according to their grade and residential zone. Another variable was the type of school attended by the subjects. Students in the *liceo* primarily were being prepared to continue on to university; whereas the students in the vocational school were being taught practical skills for the trades. Both groups were surveyed using the Offer Self Image Questionnaire (OSIQ) and five self-efficacy scales. The OSIQ was designed to measure psychological self, social self, coping self, familial self, and sexual self. The self-efficacy scales measured academic, self-regulatory, social, positive and negative emotional self-efficacy. The researchers conducted a Pearson's product-moment correlation coefficient matrix among the various scales, finding that the scale of social relationship correlated with perceived efficacy in social relationships ($r = 0.49$), and the scale of vocational and educational goals correlated both with regulatory ($r = 0.44$) and academic perceived self-

efficacy ($r = 0.44$). Perceived self-regulatory efficacy referred to the ability to resist peer pressure to engage in high-risk behavior, and perceived academic self-efficacy items were designed to measure the individuals' capability to manage their learning and fulfill both their academic expectations and those of their parents. It was not surprising that the perceived academic self-efficacy scale correlated with familial self and superior adjustment on the OSIQ.

Bacchini and Magliulo (2003) also attempted to determine if type of school influenced self-perception of the adolescent. The researchers performed a four-way multivariate analysis of the variance (MANOVA $2 \times 2 \times 2 \times 2$) with variables gender, grade, residential zone, and type of school (*liceo* vs. vocational school). A post hoc ANOVA reflected students who attended the vocational school actually reported better self-images than the *liceo* students in emotional tone, body image, social relations, and psychopathological balance. This finding was supported by a series of ANOVAs that demonstrated vocational students to have statistically significant higher perceptions of self-efficacy in social efficacy and the capacity to cope with negative emotions. The researchers explained that this finding, while surprising, might be reflective of the more rigorous curriculum in the *liceo* that leads to students' higher stress levels and more critical attitudes toward knowledge. Another explanation was that, owing to the more practical and directly applicable nature of the vocational program, the vocational students felt greater coherence between school investment and personal fulfillment in the future.

The final comparison explored by Bacchini and Magliulo (2003) was between the OSIQ scores from the 2001 study and those from a study in 1994. Findings were that improvements in perception of self were seen in familial adaptation, psychological

equilibrium and capacity to cope with complex developmental tasks. The only variable that showed significant decline was moral conscience. These findings prompted the researchers to observe that a greater satisfaction in body image and psychopathology impacting on the global perception of self existed for the more recent sample. Also noted was the fact that the sample of a decade ago exhibited more angst and disequilibrium with parents, while the modern adolescents felt more harmonious relationships with elders.

The domain specificity of self-efficacy lent itself to several studies in select disciplines. Pietsch, Walker and Chapman (2003) studied 416 high school students in Australia in an effort to compare self-concept and self-efficacy as related to mathematics performance. They hypothesized that when the affective component of self-concept was removed, mathematics self-efficacies and mathematics self-concept would load on a single factor. They also attempted to determine whether self-concept or self-esteem was more predictive of mathematics performance. Data were gathered through questionnaires including self-concept items, self-efficacy items, measures of social comparison, and mathematics scores. Means and standard deviations were charted, as were the fit indices and model descriptions for parallel analyses conducted within the domains of mathematics and percentages. Findings indicated the affective component of self-concept overlapped with self-efficacy when measured at the same level of generality, confirming the hypothesis. Most importantly, the researchers found the data to suggest that mathematics self-efficacy was more highly related to mathematics performance when compared with mathematics self-concept.

Lack of school engagement influenced by self-efficacy and goal orientation was a central theme in research conducted by Caraway, Tucker, Reinke, and Hall (2003). The researchers described school engagement as the behavioral, affective, and cognitive components that reflect commitment to learning and successful academic performance. Their hypotheses were that self-efficacy and goal orientation had significant positive associations with school engagement and fear of failure had inverse association with school engagement. The research examined contextual variables of family support, peer relationships, and school environment, as well as self-variables of self-efficacy, goal-orientation, and fear of failure. The authors noted that self-efficacy and goal orientation are two key concepts in achievement literature, and they applied social cognitive theory definitions in their study.

Subjects for the school engagement study (Caraway et al., 2003) were 206 high school students, ranging in age from 13 to 19 years old. Instrumentation included the Demographic/Academic Data Sheet (DADS), Sherer and Maddux's Self-Efficacy Scale (SES), the Goal Orientation Scale, Test Anxiety Scale, General Fear of Failure Scale, Marlowe-Crowne Social Desirability Scale Short Form, and the Engagement Subscale of the Rochester Assessment Package for Schools-Student Report. Students were provided the packet of assessments, and 60% of the original subjects returned the completed assessments. Means and standard deviations indicated significant correlations between social desirability and several other variables, including all three self-variable indicators. Thus, the researchers gleaned that generalized self-efficacy, goal orientation, and fear of failure were related to social desirability. Through a series of multiple regressions the researchers explored whether the three self-variables predicted school engagement, and,

if so, with what degree of variance. Their findings supported the hypotheses, suggesting that the higher efficacious student was more likely to get better grades and to be more engaged in various aspects of school. Further, the researchers determined that goal orientation influenced student level of engagement. They observed that setting and achieving goals begot willingness to set additional goals, putting forth more effort to achieve the goals, and persevering when facing a challenge. While the limitations to the study were the final small sample and self-report instrumentation, the findings held promise for additional study in the realm of academic engagement and self-efficacy and goal setting. Certainly it suggested the importance of intervention programs designed to maximize self-efficacious thinking and practice in goal setting. While goal setting for adolescents might naturally include those for post secondary education, this was not a variable in the study. The study did not attempt to relate educational plans for the subjects beyond high school, a concept needed in the broad area of adolescent development.

An examination of perceived self-efficacy and its influence on educational attainment was conducted via a longitudinal study by Grabowski, Call, and Mortimer (2001). The research team noted previous evidence that perceived self-efficacy rendered belief in one's capabilities to produce given attainments, a domain-specific factor. They elected, therefore, to examine sources of both global and economic (domain-specific) self-efficacy in adolescents and to compare the explanatory power of global and economic self-efficacy on attainment for youths transitioning from high school to young adulthood. They assessed parental socioeconomic status, high school grade point average, and work experience as predictors of self-efficacy. Subsequently, the researchers addressed the consequences of efficacy on high school achievement and post high school

experiences by examining senior year grade point averages as well as educational and occupational behaviors for two years following high school.

The longitudinal study conducted by Grabowski et al. (2001) began with a sample of 933 ninth grade students and surveyed them in six waves over the next six years. Measures, which varied for each wave, included demographics such as parental income, parental education, family composition, and self-reported grade point average. Global self-efficacy was measured with the Pearlin Mastery Scale. For domain-specific efficacy, the researchers constructed scales of economic factors predicted for the student's future. Included were the certainties that the student would, in adulthood, own a home and have a job that paid well and was satisfying. Measurement structures were constructed for key groups - working boys, working girls, and non-workers. Educational behavioral indicators, measured during the senior year (wave four) were the steps taken by the adolescent to enroll in a postsecondary educational program.

The authors noted a distinction in their study between educational expectations and educational aspirations. The latter connoted that which was desired. Rather, the authors sought data that measured the students' expectations, the level of education that each anticipated achieving. Finally, in waves five and six, data were gathered, via life history calendars, on the number of months the subjects had spent in postsecondary educational programs and full-time work.

Key findings of the study by Grabowski et al. (2001) were that youths from less affluent families made higher evaluations of their salaries. Among the non-workers, grades did not significantly relate to global self-efficacy beliefs. Grade point averages did contribute to beliefs about the economic future. Good pay influenced beliefs in both

domains, confirming that working during high school was significantly formative with respect to efficacy beliefs. Girls and boys educational expectations were similar, but girls took more steps toward preparation for college and achieved higher grades in college, while boys accrued more months of full-time work immediately after high school. Most important to the study was the finding that, for all subgroups, grade 11 economic self-efficacy beliefs were significantly related to educational attainment and later behaviors, while global self-efficacy was not related to any activities. The authors noted these findings to reflect previous patterns of the predictive power of domain-specific self-efficacy as opposed to overall efficacy beliefs.

Self-Efficacy and Career Expectations

The literature surrounding academics and educational plans converges with that of self-efficacy and career choice. For many students, career aspirations are a factor in considering whether or not to pursue post secondary education. Career self-efficacy refers to “a person’s beliefs regarding career-related behaviors, educational and occupational choice, and performance and persistence in the implementation of those choices” (Betz & Hackett, 1997, p. 383). Bandura (1997) postulated that self-efficacy is a consistent factor in career development.

It predicts the scope of career options seriously considered, occupational interests and preferences, enrollment in courses of study that provide the knowledge and skills needed for various careers, perseverance in difficult fields, academic success in those chosen pursuits, and even the choice of cultural milieu in which to pursue one’s occupational career. (p. 427)

In relating self efficacy to career choice, Bandura underscored the profound influence this construct has on the total development of the individual.

Bandura, Barbaranelli, Caprara and Pastorelli (2001) emphasized the importance of considering self-efficacy and career expectations. They noted that one's sense of personal identity, self-evaluation, and social interaction were shaped by career choices. The authors posited that the choices made in individuals' formative years can shape the course of their lives, determining potentialities cultivated and those ignored. Employing social cognitive components of efficacy beliefs and outcome expectancies, they noted, "The self-development during formative periods forecloses some types of options and makes others realizable," (p. 187) and saw self-efficacy as a pivotal factor in career development. Thus, they emphasized the need to explore self-efficacy and its influence on postsecondary expectations.

Bandura et al. (2001) examined the emerging beliefs of children about occupational efficacy and its impact on their career expectations. Their sample was 272 Italian children in sixth and seventh grade, a period the authors deemed a critical time of transition for the young. As in similar studies, the researchers explored the patterns of influence of parental socioeconomic status and parental academic aspirations for their children on the career and educational aspirations for the children. Their hypotheses included the belief that aspiring parents would disparage occupational choices that relied on manual labor. Further, they proposed that perceived academic self-efficacy would lead to selections of careers in scientific-technical, educational-medical, artistic-literary, and commercial-managerial careers, all calling for higher level cognitive skills and advanced knowledge. Prior to selection of an educational tract, the subjects were measured for

perceived self-efficacy in academic development, self-regulation, leisure, and social endeavors. Parents' beliefs about their efficacy to promote intellectual development were measured. Academic achievement was measured through grades assigned for core courses. Finally, the children were assessed for perceived occupational self-efficacy along six career clusters.

Results of the study by Bandura et al. (2001) revealed socioeconomic influence mediated indirectly by raising parental beliefs in their ability to influence educational choices. The researchers noted that parental educational aspirations rose with the self-efficacy they reported for influencing student decisions. As with other studies, children with high perceived academic self-efficacy performed academically. They also held a strong sense of efficacy for pursuits in scientific, educational, and medical pursuits. Social efficaciousness did not influence career trajectories. Social and self-regulation self-efficacy were, however, mediated through academic achievement. The results of the children's perceived occupational self-efficacy reflected sharp trajectories in choice by gender. A stereotypical picture emerged, with boys judging themselves to be more self-efficacious in science, technology, and management, and girls reporting higher self-efficaciousness in social, educational, and health services. Although the latter may have been a reflection of gender differentiations common in Italian cultural, the authors noted similar gaps in American studies. Indeed, while girls are catching up with boys in math and science scores, they are still rejecting those as options for true *métier*.

Betz (2004) supported Bandura's stance that self-efficacy be considered in career and educational planning. She echoed that level of self-efficacy will determine approach or avoidance behavior, an individual's likelihood to consider various options. Approach

behavior will find the self-efficacious individual setting goals and taking steps toward the goals, such as completing paper work and taking entrance examinations to attend college. Avoidance behavior, a result of low self-efficacy, will thwart individuals from attempting behaviors of which they deem themselves incapable. This self-appraisal may or may not be related to actual ability, but low self-efficacious individuals give themselves no chance to learn or master the activity. Capable students may avoid careers that require rigorous postsecondary educational experiences due to low self-efficacy.

A study by Andrew (1998) attempted to determine if students with postsecondary expectations for nursing school would also reflect science self-efficaciousness. A sample of 66 first year nursing students was selected to test hypotheses that student self-efficacy for science was related to academic performance in science and that students who studied science in the final year of high school had a higher self-efficacy for science. The instrument Self-Efficacy for Science (SEFS) was administered and tested against freshman year science scores as the criterion measure. Student reports on high school science classes were incomplete and, therefore, were not used in the final analysis. A Spearman rho correlation was performed with the SEFS scores the predictor variable and academic performance the criterion. The results indicated that the SEFS was statistically significantly correlated with academic performance in the science courses for freshmen. Thus, the first hypothesis was supported. The researchers noted the value of the study, in that by using a self-efficacy measure such as the SEFS, it may be possible to identify students who lack adequate efficacy in a key discipline. With such information, appropriate educational strategies could be developed to assist them.

Creed et al., (2003) emphasized the enormous responsibility adolescents feel for career decision making and how that is influenced by self-efficacy. They noted the dramatic physiological and psychological changes taking place in 18-19 year-old individuals, coupled with the expectations that they will seek full-time employment, postsecondary education, or a combination of education and employment. In their study of 309 students in their final year of high school, the researchers noted that pre-existing levels of well-being influenced student leave-taking. The authors echoed previous theories that found low levels of career decision making self-efficacy leading to low levels of participation in career decision making tasks and behaviors, such as information seeking, self-appraisal, and goal setting.

Career and educational plans as influenced by self-efficacy were explored in the context of social cognitive theory by Brown (1999). She focused specifically on the self-efficacy beliefs of minorities and women. Reinforcing domain-specific self-efficacy, she reviewed the four avenues through which self-efficacy is acquired as postulated by Bandura (1997), and placed them in context as they might be perceived by marginalized individuals. The author agreed that individuals acquire self-efficacy beliefs through performance accomplishments (mastery experiences). Therefore, the African-American female who has perceived racial barriers might suffer low self-efficacy and base decisions for career and educational planning on this perception. Individuals may also learn self-efficacy through vicarious learning (social modeling), observing and interpreting the behaviors of others. "When the modeling reflects economic, gender, cultural, or social class limitations, i.e., lack of nontraditional career choices, the students' career interests (and perceived options) are limited" (p. 2).

Brown (1999) concurred that beliefs about the self often are acquired through verbal persuasion (social persuasion). This persuasion can limit, either inadvertently or overtly, educational plans for the student by discouraging certain career choices. Evaluation of physical and affective status (physical and emotional states) is the fourth avenue for formation of self-efficacy (Bandura, 1997). Noting that stress and anxiety can negatively impact self-efficacy, Brown concluded that this common state for the minority student could portend low self-efficacy and, therefore, limit occupational and educational plans. The author advocated career development reform through contextual learning, problem-based learning, and community-based learning. She emphasized that students who perceive internal and external barriers to self-efficacy through cultural, linguistic, or socio-economic environments were especially in need of positive learning experiences that could guide them in overcoming the obstacles.

Self-Efficacy and Gender

Snyder (1994; Snyder, Cheavens et al., 1997; Snyder, 2002) reported having identified no differences between men and women in the overall hope, agency or pathways cognitions. He also attested that no significant difference has been determined between girls and boys using the Children's Hope Scale (Snyder, Hoza et al., 1997). Some research does suggest gender differences in self-efficacy, however, depending upon the domain studied. Bacchini and Magliulo (2003) found gender to be the variable that determined the greater number of differences, most notably in psychological self, sexual self, and coping with negative emotions. They found that girls, while successful at social functioning, experienced greater costs at the emotional level and more discontinuity in

transition. Betz (2004) described 20 years of research indicating that traditional female socialization led to lower self-efficacy expectations toward careers in math and science. Bandura et al. (2001) agreed that women's potential and their contribution to scientific and economic fields have not been realized due to low self-efficacy in these traditionally male-oriented fields.

Promoting Self-Efficacy in Youth

Just as educators who embrace the theory of hope believe it can be engendered, social cognitive theorists propose that teachers and other significant individuals can promote self-efficacy in students. Bong and Skaalvik (2003) described several experiments in changing student self-efficacy. Among the strategies proven successful were teaching students proximal rather than distal goal-setting; combining process goals with process feedback; practicing effort attribution feedback rather than performance feedback; encouraging peer assistance, especially with those who share similar attributes; and encouraging frequent student self-evaluation.

Betz (2004) offered that counselors who work with students can contribute greatly to their development in assisting them to recognize their patterns for underestimating capabilities. She noted this self-awareness to be especially important in career counseling with girls, who are particularly prone to abjure occupational and educational options because of altered self-efficacy. She specifically noted recent successes in working with middle school and high school girls to assist them in refuting the messages that keep them constricted. Specifically, the author suggested assessing self-efficacy prior to implementing other career counseling strategies in order to reveal avoidant behaviors.

Additionally, she advocated exposure to tasks representative of the avoided occupational option, building confidence by breaking down large areas of behavior into smaller ones. A valuable source of self-efficacy is social modeling, and Betz encouraged educators to locate people, particularly those of the same race and gender, in the fields in which the client lacks efficacy. Schunk and Miller (in Pajares and Urdan, 2002) agreed that vicarious influence is strengthened when key characteristics are similar. Modeling can also be done through film, books or other media. Because anxiety often accompanies the low self-efficacy domain, Betz encouraged emotional arousal (physical and emotional states) to assist the student in dealing with discomfort. Relaxation training and self-talk were two strategies suggested. Finally, Betz applied Bandura's source of social persuasion as she advocated for counselors and teachers to serve as cheerleaders for students as they try new things.

Hope, Self-Efficacy, Self-Concept, and Self-Esteem Compared

Although similar perception processes, self-concept, self-esteem, and self-efficacy differ in important applications to human behavior. Self-concept can be defined as "a composite view of oneself that is presumed to be formed through direct experience and evaluations adopted from significant others" (Bandura, 1997, p. 10). Integrating messages from key influences, the individual forms a global self-image across most domains. Bong and Skaalvik (2003) described self-concept as the totality of a person's thoughts and feelings in reference to himself as an object. They argued that self-concept is acquired in similar manner to self-efficacy, through frames of reference, causal attributions, reflected appraisals from significant others, and mastery experience.

Research has indicated that self-concept is comprised of seven distinct features: it is (1) organized, (2) multifaceted, (3) hierarchical, (4) stable, (5) developmental, (6) evaluative, and (7) differentiable. Additionally, this schema views self-esteem as one dimension of self-concept. In self-concept literature, the two are often used interchangeably, especially regarding a specific discipline (Pajares, in Maehr & Pintrich, 1997). Bandura (1997) judges self-esteem to be subsumed by self-concept. Individuals evaluate themselves, establishing self-concept, and make judgments of self-worth, thus forming their self-esteem.

In contrast, self-efficacy is the individual's judgment of personal capability that is domain-specific. Self-efficacy theory holds that there is not a fixed relationship between individuals' beliefs about their capabilities and their like or dislike for self (Bandura, 1997). Individual may feel inefficacious in any given activity without suffering loss of self-esteem. Thus, they can perceive healthy self-esteem and simultaneously perceive low self-efficacy with an activity. In noting the distinctions between self-concept and self-efficacy, Bong and Skaalvik (2003) observed that self-efficacy judgment is less concerned than self-concept with the skills and abilities one possesses. Rather, self-efficacy is a set of beliefs about how well one employs the skills and abilities. Bong and Skaalvik maintain, "While self-concept represents one's general perceptions of the self in given domains of functioning, self-efficacy represents the individuals' expectations and convictions of what they can accomplish in a given situation" (p. 5). Another distinction between self-efficacy and self-concept is that the former relates to cognitive perceptions of capability while self-concept incorporates both cognitive and affective self-perceptions (Pietsch et al., 2003).

Theorists acknowledge that individuals typically tend to cultivate capabilities in activities that enhance self-worth. The theories diverge, however, in the acceptance that self-liking will assure performance attainment. Bandura (1997) posited that self-esteem is not sufficient for success. Rather, individuals must possess confidence in their efficacy to initiate and sustain the effort to succeed in a given task. Thus, the theorist concluded that perceived self-efficacy predicts the goals the individual sets for as well as performance attainment, while self-esteem predicts neither. He argued that self-efficacy has greater predictive value than other cognitions when measuring the behavior at a specific level of generality.

The theories of hope and self-efficacy are similar but distinct. Bandura (1997) insisted that goal directed behavior is a product of the individual's assessment of outcome and efficacy expectancies. Outcome expectancies are a reflection of the individual's belief that a given behavior will yield an expected outcome. Efficacy expectancy is a product of individuals' beliefs that they have the capability to produce the necessary behavior.

Outcome and efficacy expectancies can be compared to agentic and pathway thinking in Snyder's (1994) hope theory. Willpower or agentic thinking differs from efficacy expectancies, according to Snyder, as it functions to direct mental energy to both initiate and sustain movement toward a goal. Pathways cognition goes beyond outcome expectancy in that it carries the thought that several routes to a goal can be attempted. As noted previously, Bandura held that self-efficacy beliefs are situation specific, while hope theory suggested that pathways and agentic thinking appear across several domains.

Finally, an important distinction between hope and self-efficacy is the interaction of components of each. According to Bandura, efficacy expectancies are more critical in driving goal-directed behavior than the outcome expectancies. Bandura et al. (2001) reinforced this concept in noting that self-efficacy beliefs contribute more to occupational preferences than do outcome expectancies. In contrast, hope theory suggested that agentic and pathway cognitions are equal and iterative in leading to goal pursuits (Snyder, 1994). Both hope and self-efficacy are distinctive cognitive processes, judged by the respective theorists to be essential for the individual's success and satisfaction (Bandura, 1997; Snyder, 1994). Thus, each cognitive theory is commensurable with adolescent goal pursuits for postsecondary education.

Coping and Coping Efficacy

Bandura described self-efficacy as a belief or set of beliefs about an individual's ability to take some action to produce desired results and/or forestall the undesired (Bandura, 2001). Self-efficacy theory is embedded in social cognitive theory, involving both emotion and intelligence and also implying coping competencies. Snyder and Dinoff (In Snyder, 1999) defined coping as "a response aimed at diminishing the physical, emotional, and psychological burden that is linked to stressful life events and daily hassles" (p. 5). Individuals learn coping strategies that result in success in reducing undesirable stressors. To the extent that individuals are successful in applying coping strategies, they are able to reduce the immediate stress and achieve long-term well-being. Coping efficacy is the individual's perception of confidence, motivation, and ability to successfully determine and apply strategies to cope with stressful personal and

interpersonal problems in daily life (Milford, 2002). A healthy coping efficacy can portend less vulnerability to stress and depression and greater resiliency to adversity (Bandura, 2001).

Salovey, Bedell, Detweiler, and Mayer (In Snyder, 1999) asserted that coping is a response to life events, the success of which is owed to emotional competencies.

Emotional competencies are components of the broader construct of emotional intelligence, a product of both emotion and cognition. Emotional intelligence determines the response to emotional arousal and, thus, one's coping. Emotional intelligence implies the ability to monitor and regulate feelings and emotions and to use information that is emotion-based in thinking and acting.

Salovey et al. (1999) envisioned the emotional intelligences most closely related to coping in terms of a hierarchy. The Emotional Coping Hierarchy, as designed by the authors, begins on the first level with basic emotional skills of perception, appraisal, and experience. Upon these emotional skills are built the second tier, consisting of the more sophisticated components of understanding and analysis. Emotional regulation serves as the top tier and completes the hierarchy. The writers argued that the entire hierarchy of emotional skills must be developed for effective emotional coping to take place.

Adding to the literature in the topic of emotional coping skills, Compas (1998) attempted to address what he observed to be a lack of advancement in conceptualization of the coping processes of young people. He determined that coping was but one subset of the broader domain of responses to stress, and that the coping process encompasses both effortful/volitional responses and involuntary responses. Compas joined other writers (Bandura, 1997; Snyder, 1999; Milford, 2002) in observing coping in a social

context. The individual acquires coping efficacy, at least in part, from significant relationships and acts upon them through interactions.

Efficaciousness in social interactions as well as in the intrapersonal domain was examined by Cunningham (2002). She questioned the dichotomy of approach and avoidance coping actions espoused by others (Bandura, 1997; Betz 2004) on empirical and factor analysis grounds. Cunningham conducted research with a sample of 359 fifth and sixth grade children in an effort to explore another model of coping factors, productive and nonproductive, and to develop a measurement model appropriate for use in research with early adolescents. Instrumentation for the study included the Children's Coping Scale (CCS; adapted from the Adolescent Coping Scale), the Children's Internal Coping Efficacy Scale (CICES), and the Family Environment Scale (FES). Employing domain-representative parcels of coping strategies in confirmatory factor analysis, the researcher found the productive coping factor was positively associated with the coping efficacy factor and negatively associated with a non-supportive family environment. For the nonproductive coping factor, the converse of the associations was found. The study did support other work determining the influence of family environment on children's coping efficacy as well as Bandura's social learning theory. Most important to the researcher was the development of an instrument with the potential to evaluate children's adaptive and maladaptive coping behaviors. Considering the importance of effective psychosocial development of the early adolescent, the instrument and subsequent interventions could have implications for enhancing the study of adolescent coping efficacy.

Immature or ineffective coping efficacy can result in ruminative coping, the cognitive pattern characterized by passively and repetitively focusing on symptoms of distress (Salovey et al., In Snyder, 1999). Ruminative coping finds individuals stuck in their concerns, unable to move forward or set goals. Milford (2002) determined that coping efficacy falls into two domains, personal coping and interpersonal coping, and that individuals experience coping either actively or passively. He noted that individuals with passive personal coping efficacy will tend to ruminate about bad things that happened in the past and to worry about losing control over the future. They will ruminate about their unworthiness, feel intimidated and submissive, and have difficulty setting boundaries. They are “prone to reflect low self-confidence, self-care, self-capability and little self-reliance or independence” (p. 13). Low coping efficacious individuals will have difficulty with relationships, feeling mistrustful, suspicious, rejected, and withdrawn. They also will indicate difficulty with making decisions and completing tasks, and they will be prone to procrastination.

Milford (2002) observed that the individual with high active personal coping efficacy will demonstrate competitiveness, high achieving, extroversion, assertiveness, and comfort with expression. High interpersonal coping efficacy indicates a high degree of socialization, interpersonal trust, support and acceptance of others. This observation by Milford paralleled that of Snyder, Cheavens et al. (1997) who noted that high-hope individuals nurture and sustain relationships with others.

Postsecondary Educational Expectations

The American high school system demonstrated dramatic evolution throughout the nineteenth century. While early educational institutions were designed for the gentry, reform led to opening the “schools of higher order” to women and minorities for the purpose of preparing students for admission to a college and, secondarily, for the workforce (Reese, 1995). Because many careers were prescribed by social class or family business, little thought was given to assisting the young person in making decisions about what path was most fitting or comfortable.

In the contemporary traditional American high school system the 12th year marks the end of secondary education for most students. Greater freedom for choice has been encouraged than was typical in the early high school setting. Some students will have made clear decisions about postsecondary goals, but certainly there are those who have unclear or no expectations. The decisions for some are dependent in part upon the level of preparation for education beyond high school.

Conley (2001) called attention to what he observed as a lack of articulation between high schools and postsecondary institutions in their role of preparing students for college. He noted apathy apparent in high school seniors who fail to prepare for the rigors of the college challenges ahead, and he agreed with then U.S. Secretary of Education Richard Riley who admonished the country’s educators about the “tyranny of low expectations” he observed, especially for poor and minority students (p. 31). As with most writers on the subject, Conley’s focus was on academic preparedness as he encouraged secondary schools to develop bridging relationships with colleges and universities to aid students in the transition. His examples of exemplary programs

included career-related learning pathways, personal learning plans begun in the 10th grade, and middle college high schools. The latter are programs wherein high school students complete their final two years on a college campus. Conley noted poorly developed student decision making skills, owed to institutions that make decisions for students for the 12 years of school (Conley, 2002).

Sizer (2003) added to the literature related to transitioning from high school to college. She observed the high school senior year in the United States to be a cultural phenomenon, fraught with excitement and frustration for the student. Sizer described the expectations for seniors to be numerous, conflicting, highly complex, and problematic, noting that these students are living in three time dimensions. They carry their history and the records they have assembled, the pressure of the work they are doing in the senior year, and the future they imagine. This author's perspective included suggested strategies for addressing the anxiety experienced by the senior. The strategies did not, however, include skill building in emotional intelligence or related competencies.

Gerdes and Mallinckrodt (1994), whose research focused on students making the transition from high school to college, observed that this stage for 17 to 19 year old students can be marked with anxiety, confusion, feelings of being overwhelmed, and questions about their ability to meet the demands expected of them. Indeed, these authors contended that the social and emotional concerns are sometimes overlooked by those educators who would put greater emphasis on academic preparation. Smith (1997) asserted that psychological discomfort was evident in most students anticipating leaving high school. She noted that students experienced high levels of anxiety associated with pressures about the college application process, entrance testing, pressures from family

and friends, and fear of rejection. She described a “generalized fear of the entire college application and selection process and noticeable performance anxiety” (p. 8). This anxiety may be a precursor to a lack of educational expectations.

A study by Paul and Brier (2001) addressed the propensity of students to resist forward focusing due to anticipated grief in the loss of high school friends. Their short-term longitudinal study using several scales administered before college enrollment and again during the freshman year of college determined “friendsickness” was associated with precollege concerns (p. 84). Friendsickness was significantly positively associated with loneliness and social acceptance and significantly negatively associated with college friendship self-esteem and social acceptance self-esteem. Pre-college concerns, when associated with low-hope and/or low coping efficacy, will influence postsecondary expectations.

Goodnough and Ripley (1997) designed a pro-active program to assist confused and anxious high school seniors to identify and acquire coping strategies for dealing with developmental concerns that might hinder their postsecondary expectations. They assisted graduating seniors in self-classifying according to expected plans for 4-year college, 2-year college, or military service. Semi-structured group sessions were formed according to the respective expectations. Session content included discussions about hope for college/military life, the process of separation and individuation, the fear of the unknown, losses associated with transition, parental pressures, and saying good-bye. The authors admonished high school counselors to consider the developmental concerns of graduating seniors as well as academic performance. The authors advocated providing

active interventions to assist the students in understanding their apprehensions, process their transitions, and plan for the future.

Research data revealed that between 1972 and 2001, U.S. high school completers who elected immediately to enroll in college have increased from 49% to 62% (National Center for Educational Statistics, 2003). Additionally, the data showed that during the same years, immediate enrollment rates for Caucasian high school completers increased from 50% to 64%, while for African American students, the rates rose, leveled, and then saw an increase between 1983 and 2001, from 38% to 55%. High school females entered college at greater rates than males. Anderson (2002) reported that the number of male high school completers who enroll in college has decreased from 56% to 44% since the early 1970s. Men earn more than women at all educational levels, and, therefore, do not feel compelled to strive at the same rates as women. Thus, the author observed, male decision making about postsecondary goals may be influenced by societal messages conveyed about their earning power. Anderson concluded that postsecondary goals are a simple matter of human capital investment, and she ignored other developmental or motivational factors.

The most recent data released on Louisiana high school graduates revealed that in 2002, 46% of public and nonpublic high school completers were enrolled in higher education programs (contrasting with the national rate of 62%; NCES, 2003), an increase over the previous year's 44%. The same study showed that 42% of public school completers were enrolled in higher education programs in the same year, an increase from 40% in 2001. The majority of full time freshmen (78.4%) were enrolled at one of Louisiana's 4-year public colleges or universities. Data revealed, however, that 2-year

public higher education facilities saw an increase from 13% to 13.5% (Louisiana Department of Education, 2004). While factors such as financial incentive and increased efforts at academic preparation may explain the increases in the state's postsecondary enrollment, there exists a dearth of information relating emotional competencies and cognitive dispositions to postsecondary choice.

Research does not reflect the direct influence of hope on students' postsecondary educational plans or expectations. Snyder and Shorey (2002), however, posited that there is reason to suspect that high-hope adolescents will be more likely to set goals to attend college than their low-hope counterparts. Similarly, there appears to be some indication that young people with a higher sense of efficacy are more likely to select challenging tasks, set more specific goals, and form a well-structured trajectory toward educational and occupational plans (Skinner, Zimmer-Gembeck, & Connell, 1998).

Summary

The period of life between 13 and 19 years of age marks a crucial transitional phase for individuals. According to Erikson, this phase, termed identity vs. role confusion, is experienced with challenges of natural maturation in which adolescents attempt to answer questions about whom they are and where they are going. The latter end of this phase traditionally finds young people preparing to leave high school, contemplating society's expectations as well as their own needs to individuate. The way adolescents envisage the transition and subsequently set goals for postsecondary education can determine their level of general life satisfaction as they mature. Snyder and

Bandura agree that goals and goal pursuit are essential for life satisfaction. Skills in goal setting may be influenced by levels of hope and coping efficacy.

Snyder's hope model was built upon the three basic components of goals, self-agency, and pathways thinking. According to Snyder, hope is the individual's perceived capability to design pathways to desired goals and to self motivate via agency thinking to use those pathways. Pathways thinking leads to the capacity to generate one or more workable routes to a goal. Agency thinking provides the motivation and tenacity to pursue the goals and stay the course. Thus, decision making about a goal is determined by one's pathways thinking, the perceived capacity to seek routes to the target goal, and agentic thinking, the driving force that motivates.

Proponents of hope theory stress that hope is a cognitive process, noting that both agentic thinking and pathways thinking are necessary and neither is sufficient alone for effective goal pursuit. During the goal pursuit sequence, pathway and agency thinking are both iterative and additive in nature.

A major product of goal pursuit is control over events in one's life. Social cognitive theory holds that the drive for control is instinctive to human nature. Individuals strive to exert influence over the environment in order to bring about desired outcomes and to avoid undesired ones. According to Bandura, perceived self-efficacy is the belief in the capability to perform in ways that gives people control over the events that will affect their lives. The four sources for acquisition of self-efficacy are mastery experiences (thought by Bandura to be the most powerful), social modeling, social persuasion, and physical and emotional states.

Bandura's theory merges with hope theory in the belief that personal agency is the most essential ingredient for effective goal pursuit. It is through this cognition, according to Bandura, that individuals make things happen in their lives. Through a mature sense of personal agency, individuals perceive the ability to bring anticipated outcomes to bear on current activities and develop a confidence in foresight.

Self-efficacy employs efficacy beliefs and outcome beliefs. Outcome expectancies are a reflection of the individual's belief that a given behavior will yield an expected outcome. Efficacy expectancy is a product of people's beliefs that they have the capability to produce the necessary behavior. Thus, the outcome anticipated is influenced by their sense of how well they perform in a given situation. Outcome and efficacy expectancies can be compared to agentic and pathway thinking in hope theory. The theories diverge, however, in the interactions of the components. Bandura posited that outcome expectancies are more critical in driving goal behavior. Snyder held that both agentic and pathways thinking are essential in leading to goal pursuit.

Self-efficacy theory stresses that individuals' motivation is based more on what they perceive about themselves than on what is objectively true. Highly efficacious adolescents can envision successfully negotiating obstacles, and become comfortable in setting goals. Self-efficacy assists adolescents in predicting events and exercising control over those events. Individuals will be unprepared to set important goals if they are not supported by a personal conviction of the ability to have an effect upon a course of events.

Self-efficacy also implies coping competencies. Coping is a response aimed at confronting stressful life events. People learn coping strategies that result in success in

reducing undesirable stressors. Coping efficacy is the perception that individuals can successfully determine and apply strategies to cope with stressful personal and interpersonal challenges in their lives.

The literature is lacking in studies demonstrating a relationship between coping efficacy, hope, and postsecondary expectations for high school students. Hope theorists posit that there is reason to suspect that high-hope adolescents will be more likely to set goals to attend college than their low-hope counterparts. Similarly, social cognitive theorists note that students with a high sense of coping efficacy are more likely to set specific and challenging goals which can subsequently influence educational and occupational planning.

CHAPTER THREE

Methodology

Introduction

The purpose of this study was to investigate the relationships among the variables of levels of hope, levels of coping efficacy, and postsecondary educational expectations for high school seniors. Using the Future Scale, the researcher measured the first independent variable. Total hope scores and sub-scores of pathways thinking and agentic thinking were obtained for a sample of high school seniors enrolled in north central Louisiana public schools. Overall coping efficacy and sub-scores of personal coping efficacy and interpersonal coping efficacy for the same sample, measured by the Coping Efficacy Index, also were obtained. Overall coping efficacy scores provided the measure for the second independent variable. Through administration of the Survey of Postsecondary Plans, the researcher attempted to determine the level of certainty for postsecondary educational plans, the dependent variable.

Future Scale scores were tested against each of the three items on Part II of the Survey of Postsecondary Plans that indicated the subjects' certainty for continued education. Options for continued education included 4-year college or university, community college, and vocational school. Each of the three options was measured using a 5-point continuous scale. Overall Coping Efficacy scores also were tested against each

of the same three items on the Survey of Postsecondary Plans that indicated the subjects' certainty for continued education.

Research Design

The researcher used a group comparison ex post facto design to determine whether an overall level of hope or overall coping efficacy was a better predictor for postsecondary educational expectations for high school seniors. Crowl (1996) described ex post facto research as group comparison research in which preexisting groups being compared differ with respect to one of the variables of interest. The researcher compared three groups of high school seniors for each hypothesis. The groups were products of the postsecondary options declared by the subjects (4-year college or university, community college, and vocational school). A fourth group (undecided/no plans for postsecondary education) was used for some tests.

Independent variables for this study included two-factor Future Scale (hope) scores and Coping Efficacy Index scores. The Future Scale scores were a sum of hopeful pathways thinking scores and hopeful agentic thinking scores. The Coping Efficacy Index scores were a sum of personal coping efficacy scores and interpersonal coping efficacy scores. The dependent variable was students' reported certainty of postsecondary expectation (four-year college or university, community college, or vocational school), measured by the Survey of Postsecondary Plans.

Null Hypotheses

For the purpose of this study, two general null hypotheses for the general research hypotheses were tested with three specific null hypotheses imbedded within each.

- Null hypothesis for General Research Hypothesis Set 1: Levels of hope in high school seniors are not positively related to postsecondary educational expectations.
- Null Hypothesis for Research Hypothesis 1A: Levels of hope in high school seniors are not positively related to the certainty of the subjects' expectations to attend a 4-year college or university in the next year.
- Null Hypothesis for Research Hypothesis 1B: Among high school seniors not planning to attend a 4-year college or university, levels of hope are not positively related to the subjects' certainty of attending a community college in the next year.
- Null Hypothesis for Research Hypothesis 1C: Among high school seniors not planning to attend a 4-year college or university or a community college, levels of hope are not positively related to the subjects' certainty of attending a vocational school in the next year.
- Null Hypothesis for General Research Hypothesis Set 2. Overall coping efficacy in high school seniors is not positively related to postsecondary educational expectations.
- Null Hypothesis for Research Hypothesis 2A: Overall coping efficacy in high school seniors is not positively related to the certainty of the subjects' expectations to attend a 4-year college or university in the next year.
- Null Hypothesis for Research Hypothesis 2B: Among high school seniors not planning to attend a 4-year college or university, overall coping efficacy is not positively related to the subjects' certainty of attending a community college in the next year.

- Null Hypothesis for Research Hypothesis 2C: Among high school seniors not planning to attend a 4-year college or university or a community college, overall coping efficacy is not positively related to the subjects' certainty of attending a vocational school in the next year.

Population and Sample

A sample was selected from seven high schools in three separate school districts in north central Louisiana. The schools were selected for a balance of enrollment size and diversity in population, and the school districts and schools were selected for accessibility. Crowl (1996) suggested that a sample of 10% of the population can be sufficient for research. The researcher collected 325 surveys from students enrolled in 24 English IV classes, selected because of high enrollment of senior students, at the respective high schools. This sample size is endorsed by Krejcie and Morgan (1970) whose work determined the needed sizes of a sample from a given population such that the sample proportion will be within .05 of the population proportion with a 95 percent level of confidence. The total population of enrolled 12th grade students for the three school districts is approximately 1682 (Louisiana Department of Education, 2004). Applying the guidelines derived by Krejcie, Morgan and Crowl, 325 students are considered a sufficient sample.

Instrumentation

Three survey instruments were selected for this study in order to derive values to measure the two independent variables and the dependent variable. Instruments used

were The Future Scale, Coping Efficacy Index, and the Survey of Postsecondary Plans. The Future Scale, developed by Snyder (Snyder et al., 1991), was designed to reflect individuals' beliefs that they have the determination and commitment to reach their goals, the mental capacity to find one or more ways to reach the goals, and the overall belief that they will get what they want out of life. The survey was originally titled The Hope Scale, but the author determined that the title led to sufficient interest in the construct hope to be distracting. Extensive research has seen the inventory titled Goals Scale, Trait Hope Scale, and the Future Scale (McDermott, & Snyder, 1999; Salovey, et al., 1999; Snyder, 1994; Snyder, 1999; Snyder, 2002; Snyder, Cheavens, & Michael, 1999; Snyder, Cheavens, & Simpson, 1997; Snyder, & Dinoff, 1999; Snyder, Harris, et al., 1991; Snyder, Hoza, et al., 1997; Snyder, Lopez, et al., 2003; Snyder, McDermott, et al., 2002; Snyder, & Shorey, 2002).

The Future Scale consisted of 12 items, four items measuring agency thinking, four measuring pathways thinking, and four distracter items. Agency thinking was measured by items such as "I energetically pursue my goals" and "I've been pretty successful in my life." Pathways thinking was measured by items such as "I can think of many ways to get out of a jam" and "Even when others get discouraged, I know I can find a way to solve the problem." The Future Scale has been heavily researched on adults in a wide range of settings. Internal reliability has been demonstrated with alphas ranging from .74 -.88 for the overall scale, and alphas of .70 -.84 for agency and .63 -.86 for pathways subscales. Temporal (time dependent) reliability has also been determined with tests-retests ranging from .85 for three weeks to .82 for ten weeks. Also reported were

extensive concurrent and discriminant validation support and experimental manipulation-based convergent validation (Snyder, 2002).

The Future Scale consisted of 12 items using an eight-point continuum to encourage a wider variance in scores. Responses ranged from “definitely false” to “definitely true.” The Pathways subscale was derived from the sum of four of the items, and the Agency subscale was derived from the sum of four different items. Scores for the two subscales range from 4 to 32 each. Four items were distracters and were not used for scoring. The overall Future score was the sum of the four Pathways and four Agency items, ranging from 8 to 64. A total score of 56 (i.e. a response of at least 7, “mostly true,” for each item on the eight-point continuum) indicated the subjects’ hopeful thoughts about getting what they want out of life. The researcher derived a Pathways score, Agency score, and Total Future score for each completed survey. The Total Future score was used as the measure for the first independent variable, levels of hope for high school senior students. The Future Scale took approximately five minutes to complete. The author granted permission for the scale to be used for research purposes (Snyder et al., 1991).

The Coping Efficacy Index (CEI) was developed by Milford (1999) as a measure of coping efficacy in the personal and interpersonal domains. The developer constructed the instrument based on the theory that individuals acquire beliefs that reflect varying degrees of confidence, capability, and care in accomplishing personal wants and needs, as well as meeting expectations of others (King, 2002). The CEI consisted of 40 items in a five-point scale format to increase variance and enhance discrimination of items.

Responses ranged from “Definitely False” to “Definitely True.” Seventeen of the items were reverse-scored to control for response biases.

The CEI consisted of nine coping scales, four in the personal domain, four in the interpersonal domain, and a composite scale score for overall coping adaptation. The (1) self-confidence (SCF), (2) self acceptance/self-care (SAC), and (3) self capability/self control (SCL) scales comprised the personal coping domain. Examples of items in the personal coping domain were “I do my best at most things I do” and “I am able to make many good things happen for me.” The (4) interpersonal or other confidence (OCF), (5) other acceptance/other care (OAC), and (6) other capability/other control (OCL) scales made up the interpersonal domain. Examples of items in the interpersonal coping domain included “I know most people will treat me fairly” and “I praise and encourage others.”

The personal coping composite (PC) was obtained by summing the raw score values for scales 1, 2, and 3. The interpersonal coping composite (IC) was obtained by summing the raw score values for scales 4, 5, and 6. The overall level of coping adaptation scale score (OC) was obtained by adding the raw scores for overall personal coping (PC) and overall interpersonal coping (IC). The final score used for this study from the CEI was the composite overall coping adaptation score (OC). The Overall Coping adaptation score was the value used for the second independent variable, coping efficacy of high school senior students.

Two studies have been conducted to determine reliability and validity of the Coping Efficacy Index. Bellah (2000) reported internal consistency of composite, index scores, and subscales using Cronbach’s alpha. The personal coping competence showed a reliability of $r = .85$, interpersonal coping competence was $r = .88$, and overall reliability

of the CEI was $r = .90$. Reliabilities of the subscales reflected moderately high degrees of internal consistency as follows: personal self-confidence (SCF), $r = .83$; personal acceptance/self care (SAC), $r = .79$; personal capability/self control (SCL), $r = .81$; interpersonal or other confidence (OCF), $r = .84$; interpersonal or other acceptance/other care (OAC), $r = .82$; and interpersonal or other capability/other control (OCL), $r = .83$. King (2000) found that reliability coefficients and factor structure on the CEI were similar to Bellah's. Consequently, both Bellah and King indicated acceptable reliability and validity.

The standard errors of measurement for each of the subscales of the CEI were low, reflecting a high degree of stability among subscale scores. The standard errors of measurement of the subscales were: SCF, 1.99; SAC, 1.70; SCL, 1.26; OCF, 1.96; OAC, 1.75; and OCL, 2.06. Standard errors of measurement for the overall scores were: PC, 3.32; IC, 3.66, and OC, 5.04 (Bellah, 2000). Additionally, Bellah reported that the CEI demonstrated satisfactory convergent and discriminant validity on a number of studies examining factor structure, criterion validity, and construct validity of the assessment.

The CEI took approximately 20 minutes to complete. Permission to administer this assessment for research purposes was granted by the developer.

The Survey of Postsecondary Plans (SPSP) was developed by the researcher as a measure for the dependent variable, specifically what educational option was selected by subjects (4-year college or university, community college, or vocational/technical school) and the level of certainty about plans to pursue education after high school.

The survey was organized in two sections. In Section I, participants were surveyed for demographic data, such as age, gender, racial/ethnic group, and overall high

school grade point average. Subjects were asked grade classification in order to eliminate any who were not enrolled as seniors.

Section II of the SPSP was comprised of three items, each asking for level of certainty for a separate post high school educational option [(A) 4-year college or university, (B) community college, and (C) vocational school]. Each item was valued 1 to 5 on a Likert scale, from “definitely do not plan to attend” to “definitely plan to attend.” In item A, subjects were asked to determine their level of certainty for plans to attend a four-year college or university. Subjects who selected 1, 2, or 3, (“definitely do not plan to attend” to “not sure whether I will attend”) were instructed to continue to item B, which addressed the level of certainty for plans to attend a community college. Subjects who selected 1, 2, or 3 on item B (“definitely do not plan to attend” to “not sure whether I will attend”) were instructed to continue to item C, which asked subjects for level of certainty for plans to attend a vocational school. Beginning with item A, students who select 4 or 5 (“I plan to attend” or “I definitely plan to attend”) were instructed to ignore the remaining items.

The Survey of Postsecondary Plans was designed by the researcher, and, therefore, reliability and validity data were not available. The researcher, however, conducted a pilot study for face and content validity. The Survey of Postsecondary Plans was examined initially by a panel of experts. Following that examination for face validity, the survey was administered to a sample of high school students enrolled in the 12th grade in a north central Louisiana public school. The data were examined using descriptive frequencies, including means, standard deviations, ranges, minimum and maximum scores (Table 1). Based upon responses from the pilot sample, some

modifications were made to the instrument. Racial and ethnic descriptors were alphabetized, and, to enhance clarity of responses, overall grade point average was requested as a subject's value rather than selected from a range. The pilot sample was not included in the analysis of the sample for the larger study.

Procedural Details

Permission to conduct the research using human subjects was sought and obtained from the Human Use Committee of Louisiana Tech University. After approval of the Human Use Committee, superintendents of the three school districts were petitioned for permission to conduct the research in selected high schools in each of those districts. In addition, permission was requested from one of the superintendents to conduct the pilot study with one class of 12th grade students. Following permission of the superintendent and principal, an English teacher was identified, and support and participation for Phase I, the pilot study, was secured. This school was not used for the final sample. Permission was sought from the principals of each of the schools selected for the final study, and, upon that approval, English teachers in each of the schools were identified and their support and participation was secured.

Phase II was the full research study, in which seven high schools in three school districts participated. Upon receiving approval from the Human Use Committee and endorsement from superintendents, principals, and identified teachers, letters of explanation and permission forms were prepared for the sample for the study. One week prior to administration of the measures, the sample of 12th grade students enrolled in northeast Louisiana schools were given, through English classes, the letters and forms

requesting permission from parents of those under the age of 18 years. The minor students were instructed to return the signed permission forms in order to take part in the study.

The researcher then scheduled an appropriate time for administration with each of the nine English teachers who volunteered for participation. Each class was visited by the researcher to administer the Future Scale, Coping Efficacy Index, and Survey of Postsecondary Plans. Introduction, explanation of the study, and instructions were scripted to insure consistency of administration. Completed parental permission forms were collected from minor students. Minor students who had not returned parental permission forms were given another permission form, a copy of the survey, and a stamped envelope addressed to the researcher. Each of these students was invited to complete the survey with the class, obtain parental permission, and mail both the survey and permission form in the envelope provided. Students 18 years and older were instructed to read and sign a Human Use Form, provided by the researcher, prior to completing the measures. Participant consent forms were collected separately from the measures, and students were informed that no effort would be made to identify the participants or school by name.

All student participants were given explicit instructions by the researcher for completing the survey. Subjects were given the three measures and instructed to complete them according to their best responses of how true the items were for each. Completed surveys were collected from those students who were 18 years or older on the day of the administration and those who had returned signed permission forms. The entire survey took approximately 30 minutes per class to complete, including instructions. The

researcher collected a total of 312 surveys, and an additional 13 were mailed in, for a total N of 325.

Phase I, Pilot Study

Phase I of the research was the pilot study. The researcher-designed Survey of Postsecondary Plans was examined by a panel consisting of three licensed psychologists, each of whom provided expert feedback. The Survey of Postsecondary Plans, Future Scale, and the Coping Efficacy Index were administered to one class of 12th grade students enrolled in English IV. Demographic data from this administration are reported in Table 1, indicating 19 subjects. The sample included 47% males, 53% females, 11% African Americans, and 89% Caucasian students. The mean and median grade point averages were 1.89 and 2.0 (on a 4-point scale), respectively. Additionally, Table 2 reveals that 68.4% of respondents reported plans to attend a postsecondary program during the next year, 21.1% were undecided, and 10.5% responded that they would not seek postsecondary education. The number of students who reported plans to attend a postsecondary institution was disproportionately greater than the state average, a finding that would be again reflected in the larger sample. As a result of the pilot study, minor modifications in the Survey of Postsecondary Plans were made to enhance clarity. No other problems were detected in the pilot study.

Table 1

Number, Race/Ethnicity, Gender, Age, and Grade Point Average of Pilot Sample

Race/Ethnicity	Frequency	Percent
African American	2	10.5
Caucasian	17	89.5
Total	19	100.0
Gender		
Male	9	47.4
Female	10	52.6
Total	19	100.0
Age		
17	5	26.3
18	11	57.9
19+	3	15.8
Total	19	100.0
Grade Point Average		
3.5-4.0	5	26.3
2.5-3.49	11	57.9
1.5-2.49	3	15.8
Total	19	100.0

Note: n = 19

Table 2

Certainty Level - General Postsecondary Education Plans of Pilot Sample

No	2	10.5
Undecided	4	21.1
Yes	13	68.4
Total	19	100.0

Note: n = 19

Data Analysis

Collected data for the pilot study and full research study were entered into the Statistical Package for Social Sciences (SPSS) computer program. Standard descriptive statistics (means, standard deviations, ranges, minimum and maximum scores) were derived as appropriate for each of the independent and dependent variables.

The hypotheses for the full research study were tested using Pearson product-moment correlations, followed by Kruskal-Wallis H tests, multiple linear regressions, and multiple discriminant analyses. The first General Research Hypothesis concerned the relationship between levels of hope and postsecondary educational plans for 12th grade students. Research Hypotheses 1A, 1B, and 1C were tested computing the Pearson product-moment correlation coefficients between Total Future Scale (hope) scores and, respectively, responses to items A, B, and C of the Survey of Postsecondary Plans. The hypotheses were also tested with Total Future scores and a general postsecondary scale, assigning values for affirmative plans to attend a postsecondary program (2), undecided (1), and no plans to attend a postsecondary program (0). Although not a formal property of the hypothesis, Pearson correlations were calculated by gender for Total Future scores and the dependent variables.

The second hypothesis concerned the relationship between coping efficacy and postsecondary educational plans for 12th grade students. Research Hypotheses 2A, 2B, and 2C were tested computing the Pearson product-moment correlation coefficients between Overall Coping Efficacy Index scores and, respectively, responses to items A, B, and C of the Survey of Postsecondary Plans. The hypothesis was tested using Overall Coping scores and general postsecondary scores, assigning values for affirmative plans to

attend a postsecondary program (2), undecided (1), and no plans to attend a postsecondary program (0). As with the Total Future scores, correlations were calculated by gender for the Overall Coping scores and postsecondary plans.

Although hypotheses were not held concerning subscales, a more precise analysis was performed with a series of Pearson correlations to discern if subscales of either of the two independent variables (Future Scale and Coping Efficacy Index) revealed more specific relationships. Analyses with the Kruskal-Wallis H test were calculated to test the differences between the means ranks of the independent variables. A grouping variable was constructed by classifying subjects into four groups reflecting four levels of self-reported certainty on the Survey of Postsecondary Plans: (1) certainty for 4-year college or university, (2) certainty for community college, (3) certainty for vocational school, and (4) uncertain/no plans for postsecondary education.

Tests were performed to obtain more precise information about relationships between the two independent variables (Total Future scores and Overall Coping scores) using multiple linear regression. Three multiple regressions were performed, one for each of three dependent variables (certainty level for 4-year college/university, certainty level for community college, certainty level for vocational school). Tests also included multiple discriminant analyses to account for differences in the profiles of four groups (certainty for 4-year college or university, certainty for community college, certainty for vocational school, and uncertain/no plans for postsecondary education). The multiple discriminant function analyses were performed both stepwise and simultaneous entry.

Interpretation Plans

Descriptive data (means, standard deviations, ranges, minimums and maximum scores) collected and entered into SPSS were examined. Subscales and overall scores for the two independent variable measures were derived. The first general hypothesis, the relationship between levels of hope and the certainty of postsecondary educational expectations for the sample, was analyzed using the Pearson product-moment correlation. The strength and the direction of the relationship between levels of hope and the certainty of expectations for attending a 4-year college or university, community college, or vocational school was examined using the values derived with the Pearson r . The general education plan value was derived based upon plans reported by subjects to attend any of the three educational options. This value was also tested against the Future Scale subscales and Total Future scores.

The second general hypothesis, the relationship between overall coping efficacy and the certainty of postsecondary educational expectations for the sample, was computed using the Pearson product-moment correlation. The strength and the direction of the relationship between coping efficacy and the certainty of expectations for attending a four-year college or university, community college, or vocational school was examined using the values derived with the Pearson r . The general education plan value was derived based upon plans reported by subjects to attend any of the three educational options. This value was also tested against the Coping Efficacy subscales and Overall Coping scores. For each of the data sets, the strength, value, degrees of freedom, and direction of the relationships was reported.

Kruskal-Wallis H tests were used to support the correlations and to examine the differences in mean ranks. Both Kruskal-Wallis tests revealed a significant difference for the grouping mean ranks. Additionally, the independent variable scores were calculated against the three educational options with a multiple linear regression, and data were examined to determine if either instrument was a better predictor for postsecondary educational expectations.

Tests with multiple discriminant analyses were used to account for the differences in the profiles of the four groups, using the stepwise entry of the two independent variables. To determine the degree to which the two independent variables together correctly classified observations into the four groups, two multiple discriminant analyses were performed, one with stepwise entry and one with simultaneous entry of the two dependent variables.

Limitations

The researcher acknowledged some limitations to this study. The selected sample was 12th grade students in public schools in the same general geographic area. Due to the restricted geographic area of the sample, results can not be generalized to the entire population.

The researcher-designed instrument Survey of Postsecondary Plans may have posed limitations to the study. Part II of the survey required subjects to select a level of certainty for three specific postsecondary educational options, using a five-point scale of certainty. The responses to the three items in this section served as the dependent variable for the tests of the hypotheses. Pyrzak (2001) noted that values may be diminished if the

variability in a group is artificially low. The use of a five-point rating scale on these items may have resulted in some restriction in range on the dependent variable, and, therefore, may be a possible limitation to this study.

The Survey of Postsecondary Plans offered restricted options for postsecondary plans. For example, options were not offered for plans to seek military experience or full-time employment. This omission may have prompted socially desirable responses, resulting in an unusually high percentage of subjects who reported plans to attend a postsecondary institution in the next year. All data were obtained by student self-report, increasing the risk for subject deception, especially on items such as grade point average and certainty of plans.

CHAPTER FOUR

Results

Introduction

The general purpose of this study was two-fold: (1) to test hypotheses concerning relationships between levels of hope and postsecondary educational plans for high school senior students and (2) to test hypotheses concerning relationships between levels of coping efficacy and postsecondary educational plans for the same sample. Specifically, the researcher wanted to determine if either construct, hope or coping efficacy, was a significant predictor for decisions made about continuing education beyond high school. Educational expectations included: plans to attend a 4-year college or university, plans to attend a community college, or plans to attend a vocational school. Two general research hypotheses were designed with three specific hypotheses embedded in each general hypothesis, matching the three postsecondary options.

Three instruments were used to operationalize the variables. To measure the independent variables, hope and coping efficacy, respectively, the researcher selected the well-researched Future Scale (FS) (Snyder, Harris, et al., 1991) and the Coping Efficacy Index, (CEI) (Milford, 1999). The instrument used to measure the dependent variable was the researcher-designed Survey of Postsecondary Plans (SPSP).

The Future Scale yielded two subscales, measuring pathways thinking and agentic thinking. The Pathways Subscale measured the subjects' beliefs that they could generate workable routes to a goal. The second, Agency Subscales, reflected their perceived

capacity to use the pathways to reach the desired goal. As is standard procedure, the two subscales were summed to derive a Total Future Scale score, the value of which was used to test the first set of hypotheses.

The Coping Efficacy Index was designed to assess the individual's perception of confidence, motivation, and capability to successfully determine and apply strategies to cope with personal and interpersonal challenges. Thus, the Coping Efficacy Index may be viewed as a comprehensive measure of adjustment (Milford, 2002). Subscales for the Coping Efficacy Index were Personal Coping and Interpersonal Coping. The two subscales were summed to derive an Overall Coping score, which was the value used to test the second set of hypotheses. The researcher-designed instrument, the Survey of Postsecondary Plans, was used to measure the dependent variable, educational expectations of high school seniors. This instrument gleaned useful demographic data as well as scores that indicated the students' reported levels of certainty about attending a 4-year college or university, community college, or vocational school immediately following high school graduation.

A pilot study phase included examination of the instruments by a panel of experts and administration of the survey to a class of high school seniors enrolled in English IV. Following the pilot study, the instrument was administered to the full sample of students enrolled in the 12th grade in 24 different classrooms in three public school districts in north central Louisiana.

Phase II, The Full Research Study

Phase II of the research involved survey administration to a larger sample of high school seniors. The study included students from three school districts in north central Louisiana. Seven schools participated, from which 24 classes of English IV were surveyed by the researcher. Completed surveys were collected only from students who were over 18 years old and had signed an informed consent form or those who had returned a parental permission form distributed prior to the research. The researcher collected 312 surveys during school visits. An additional 125 students were surveyed, but were unable to formally contribute data at the time of collection due to lack of completed parental permission forms. Each of these students completed the survey with their peers and was provided with a parental permission form and stamped envelope addressed to the researcher. Of these, 13 surveys and parental permission forms were returned via mail for a return rate of 10% mail-ins. The total number of surveys collected at administration and via mail was 325.

Part I of the Survey of Postsecondary Plans instructed subjects to provide basic demographic information. Table 3 reflects descriptive statistics for subjects' race/ethnicity, gender, and age, including frequencies reported by percentages. As noted, 30.2% of the samples were African American and 64.3% were Caucasian. Gender was evenly split, with 161 males (49.5%) and 164 females (50.5%). The age range of subjects was 16 to 19 years of age, with 66.2% reporting age 18 and 24.9% reporting age 17.

Table 3

Reported Race/Ethnicity, Age, and Gender of Subjects

	Frequency	Percent
Race /Ethnicity		
African American	98	30.2
Asian American/Oriental	4	1.2
Caucasian	210	64.6
Mexican American	1	.3
Native American	3	9
Puerto Rican, Latino, Hispanic	5	1.5
Other	1	.3
Prefer not to respond	3	.9
Total	325	100.0
Age		
16	1	.3
17	81	24.9
18	215	66.2
19+	28	8.6
Total	325	100.0
Gender		
Male	161	49.5
Female	164	50.5
Total	325	100.0

Note: n = 325

Participant grade point averages were self-reported. Table 4 shows a mean grade point average of 3.07 with a standard deviation of 0.55, and a range of 2.50 (from 1.50 to 4.00) on a 4.0 scale for the full sample. Grade point averages differed by gender with a

mean for males of 2.96 and a mean for females of 3.17. Five students did not report grade point average; thus for this variable $n = 320$.

Table 4

Reported Grade Point Average of Subjects

	Total Sample	Males	Females
N	320	159	161
Missing	5	2	3
Mean	3.07	2.96	3.17
Std. Deviation	.55730	.54980	.54732
Range	2.50	2.50	2.00
Minimum	1.50	1.50	2.00
Maximum	4.00	4.00	4.00

Note: $n = 320$

Survey Instruments

Instruments used for this study were the Future Scale (Snyder, et al., 1991), Coping Efficacy Index (Milford, 1999), and Survey of Postsecondary Plans, designed by the researcher. The Future Scale yielded subscales of Agency and Pathways, as well as a Total Future score. From the Coping Efficacy Index, subscales of Personal Coping and Interpersonal Coping were derived, as well as an Overall Coping score. The Survey of Postsecondary Plans was constructed in two parts. Part I requested basic demographic information, and Part II reflected the subjects' reported plans to attend a postsecondary institution in the next year.

Table 5 indicates for each of the scales and the corresponding subscales the number of usable scores, means, standard deviations, ranges, minimum, and maximum scores. Student error (i.e., incomplete responses) resulted in fewer usable scores for the Overall Coping scores of the Coping Efficacy index ($n = 306$) than the Total Future scores of the Future Scale ($n = 322$). As expected, the numbers of subjects for the four items on Part II of the Survey of Postsecondary Plans diminished in descending order (General postsecondary plans, $n = 325$; 4-year college plans, $n = 323$; community college, $n = 81$; vocational school, $n = 52$). This pattern reflected the reported educational plans of subjects and was consistent with expectations based on the pilot study. Students were instructed not to proceed to the next educational option if they had selected “plan to attend” or “definitely plan to attend” for the item preceding.

The variable Certainty Level for General Postsecondary Education Plans indicated a value applied by the researcher based upon observation of the responses of the three items for education option. Values were applied based on underlying social perceptions about the value of education in preparation for a career. As noted previously, Erikson determined the young person’s quest for occupational identity to be paramount (Erikson, 1963). The U.S. Department of Labor, Bureau of Labor Statistics (2004) has reported consistently that educational attainment level is linked to job security and earning power, with individuals earning a 4-year degree earning substantially more than 2-year degree graduates. Two-year degree graduates also earn more than workers with no postsecondary education or training. Similarly, data indicate that the unemployment rate decreases incrementally with levels of education attained. It, therefore, was reasonable to create a continuous variable for general postsecondary certainty applying values based

upon subject responses to the three items on Part II of the Survey of Postsecondary Plans. Students who responded to any of the three items with “plan to attend” or “definitely plan to attend” were assigned a value of two. Those students who did not respond affirmatively to any of the educational options and who selected “undecided” were assigned a value of one. Students who did not select any of the options above and who selected “do not plan to attend” or “definitely do not plan to attend” were assigned a zero. Thus, the variable Certainty Level for General Postsecondary Education Plans, yielded 325 responses because every student was assigned a value.

Table 5

Descriptive Statistics for Future Scale, Coping Efficacy Index, and Survey of Postsecondary Plans, Including Subscales

	N	Mean	sd	Range	Minimum	Maximum
Agency Subscales	324	25.87	4.150	21	11	32
Pathways Subscales	323	25.28	4.113	26	6	32
Total Future Scores	322	51.17	7.132	40	24	64
Personal Coping Subscales	318	69.19	9.710	48	41	89
Interpersonal Coping Subscales	313	76.59	10.722	58	50	108
Overall Coping Scores	306	145.82	17.074	96	98	194
Certainty Level 4-Year College	323*	4.11	1.237	4	1	5
Certainty Level-Community College	81	2.84	1.418	4	1	5
Certainty Level-Vocational School	52	1.98	1.276	4	1	5
Certainty Level-General Postsecondary Education Plans	325	1.81	.510	2	0	2

Note: *As explained on pages 91-92, all subjects responded to Survey of Postsecondary Plans item II, A, according their plans to attend a 4-year college or university. Subjects were instructed not to proceed to the next educational option if they had selected “plan to attend” or “definitely plan to attend” for the item preceding. Subjects who indicated any combination of “definitely do not plan,” “do not plan,” or “not sure” on items A, B,

and/or C, will have been counted on all such responses. Thus, the total for the three items does not equal 325, the number of subjects in the sample, indicating a lack of independence between these groups. Additionally, the variable Certainty Level for General Postsecondary Education Plans was constructed with data from the previous three variables. All subjects were assigned a value, as explained on pages 92, based on their educational plans for any of the three options. ("definitely plan to attend," or "plan to attend" = 2; "not sure" = 1; "definitely do not plan to attend," or "do not plan to attend" = 0). Thus, n for this variable was 325.

Tests of Hypotheses

The hypotheses of the study were tested at the $p < .05$ two-tailed level of significance. Each of the research hypotheses and those embedded were tested using a series of Pearson product-moment correlation coefficients, followed by Kruskal-Wallis H tests, multiple linear regressions, and multiple discriminant analyses.

Analyses Using Pearson Product-Moment Correlations

Preliminarily, the validity of using the full-scale scores of the two instruments Future Scale and Coping Efficacy Index was determined by comparing the subscales of each respectively. A Pearson correlation was calculated examining the relationship between the Agency Subscales and Pathways Subscales of the Future Scale. A moderate positive correlation was found to be significant ($r(320) = .48, p < .05$). A Pearson correlation also was calculated examining the relationship between the Personal Coping subscale and Interpersonal Coping subscale of the Coping Efficacy Index. A moderate

positive correlation was found to be significant ($r(304) = .39, p < .05$). Since the subscales for the Future Scale and for the Coping Efficacy Index showed moderate intercorrelations in this study, and because the total scale scores are traditionally used in research, the two subscales for each scale were combined for a Total Future score and Overall Coping score, respectively.

Research Hypothesis Set 1: Level of hope in high school seniors is positively related to postsecondary educational expectations.

This general hypothesis and hypotheses 1A, 1B, and 1C (defined on page 10), were tested using Pearson product-moment correlation coefficients. Levels of hope were measured by the Total Future Scale. Postsecondary expectations were measured by the Survey of Postsecondary Plans as follows: certainty of attending a 4-year college or university, certainty of attending a community college, and certainty of attending a vocational school in the next year. A general certainty of educational plans score, the product of the three, was also used. The results are listed in Table 6.

Of the four hypotheses tested between Total Future scores and the four measures of certainty of postsecondary educational plans, only one was supported by statistically significant results. This significant result supported the hypothesis concerning Total Future scores and certainty of plans to attend a 4-year college or university (Hypothesis 1A, defined on page 10). A weak but statistically significant positive correlation was found between Total Future scores and reported certainty to attend a 4-year college or university ($r(318) = .16, p < .01$). As indicated in Table 6, the hypothesized relationships between Total Future scores and (1) general postsecondary plans, (2) plans to attend a community college, and (3) plans to attend a vocational school were not statistically

significant. A non-significant correlation also was found when the general certainty for postsecondary education plans was calculated with a split file, where “undecided” and “no” responses were combined in one file against “yes” responses ($r = .03$). An unexpected negative correlation was found for certainty to attend community college and the Total Future Scores ($r = -.20$) (Hypothesis IB, defined on page 10), although this was not statistically significant.

Table 6

Pearson Correlations for Total Future Scores and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson r	p	n
General Postsecondary Education Plans	-.01	ns	322
4-Year College or University	.16	< .01	320
Community College	-.20	ns	81
Vocational School	.02	ns	52
General Postsecondary Education Plans-Split File	.03	ns	322

Research Hypothesis Set 2: Overall coping efficacy in high school seniors is positively related to postsecondary educational expectations.

This general hypothesis and hypotheses 2A, 2B, and 2C (as defined on pages 10-11) were tested using Pearson product-moment correlation coefficients between coping efficacy as measured by the Overall Coping efficacy score and each of the three educational options on the Survey of Postsecondary Plans Part II (4-year college or

university, community college, vocational school), as well as general educational plans. The results are listed in Table 7.

Of the four hypotheses tested between Overall Coping Efficacy scores and the four measures of certainty of postsecondary educational plans, two were supported by statistically significant results. Overall Coping Efficacy Index scores were significantly and positively associated with both (1) reported certainty to attend a 4-year college or university and (2) reported general postsecondary educational plans.

A weak but statistically significant positive correlation was found between the Overall Coping Index scores [$r(304) = .14, p < .05$] and general certainty of educational plans. When the file was split, combining “undecided” and “no” responses into one file, and tested against “yes” responses, again a weak but statistically significant positive correlation was found for Overall Coping scores and general certainty of plans for postsecondary education [$r(304) = .18, p < .01$]. A weak but statistically significant positive correlation that was found [$r(303) = .20, p < .01$] between Overall Coping scores and reported certainty to attend a 4-year college or university (Hypothesis 2A). No other significant relationships were found supporting Hypothesis 2. A negative correlation was found for the certainty to attend vocational school (Hypothesis 2C) and Overall Coping scores ($r = -.16$), although this relationship was not statistically significant.

Table 7

Pearson Correlations for Overall Coping Index Scores and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson <i>r</i>	<i>p</i>	<i>n</i>
General Postsecondary Education Plans	.14	< .05	306
4-Year College or University	.20	< .01	305
Community College	.06	ns	76
Vocational School	-.16	ns	50
General Postsecondary Education Plan – Split File	.18	< .01	306

Thus, to summarize the results for Hypothesis Set 1, only one of four hypotheses was supported by a statistically significant Pearson correlation. Total Future scores were significant and directly correlated with reported certainty to attend a 4-year college for university. For Hypothesis Set 2, two of the four hypotheses were supported by significant Pearson correlations. (1) Overall Coping scores were significant and directly correlated with reported certainty to pursue general postsecondary plans, and (2) Overall Coping scores were significant and directly associated with reported certainty to attend a 4-year college or university.

Although hypotheses were not projected for subscales, a more precise analysis was performed with a series of Pearson correlations to discern if subscales of either of the two independent variables (Total Future Scale and Coping Efficacy Index) revealed more

specific relationships. As noted in Table 8, for Agency Subscales a weak but statistically significant positive correlation was found with the certainty of attending a 4-year college or university [$r(320) = .23, p < .01$]. No other significant relationships were found for Agency Subscales. It is noted that a negative, though not significant, correlation was found for Agency Subscales and certainty to attend a community college ($r = -.16$).

Table 8

Pearson Correlations for Agency Subscale Scores of Future Scale and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson r	p	n
General Postsecondary Education Plans	.06	ns	324
4-Year College or University	.23	<.01	322
Community College	-.16	ns	81
Vocational School	.02	ns	52

A Pearson correlation was calculated examining the relationship between subjects' Pathways Subscale scores and certainty to seek postsecondary education. The results are listed in Table 9. No significant relationships were found between the Pathways Subscale scores of the Total Future Scale and any of the four measures of the Survey of Postsecondary Plans. It was noted that a statistically non-significant negative correlation was found between Pathways Subscales and general certainty of educational plans ($r = -.07$) and Pathways Subscales and certainty of attending a community college ($r = -.19$).

Table 9

Pearson Correlations for Pathways Subscale Scores of Future Scale and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson <i>r</i>	<i>p</i>	n
General Postsecondary Education Plans	-.07	ns	323
4-Year College or University	.03	ns	321
Community College	-.19	ns	81
Vocational School	.02	ns	52

Pearson correlations were calculated examining the relationship between the two Coping Efficacy Index subscales- Personal Coping and Interpersonal Coping - and the reported certainty of educational plans. As noted in Tables 10 and 11, three statistically significant relationships were found. For Personal Coping subscales, a weak but statistically significant positive correlation was found with the certainty of attending a 4-year college or university [$r(314) = .16, p < .01$]. No other significant relationships were found for Personal Coping Subscales.

A Pearson correlation was calculated examining the relationship between the Interpersonal Coping Subscales and certainty for postsecondary educational plans. A weak but statistically significant positive correlation was found with the general certainty of plans for postsecondary education [$r(311) = .14, p < .05$], and with certainty of plans for 4-year College or university [$r(310) = .19, p < .01$]. No other significant relationships

were found between Interpersonal Coping Subscales and the measures of postsecondary educational expectations.

Table 10

Pearson Correlations for Personal Coping Subscale Scores of Coping Efficacy Index and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson <i>r</i>	<i>p</i>	n
General Postsecondary Education Plans	.09	ns	318
4-Year College or University	.16	< .01	316
Community College	-.01	ns	81
Vocational School	-.10	ns	52

Table 11

Pearson Correlations for Interpersonal Coping Subscale Scores of Coping Efficacy Index and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson <i>r</i>	<i>p</i>	n
General Postsecondary Education Plans	.14	< .05	313
4-Year College or University	.19	< .01	312
Community College	.09	ns	81
Vocational School	-.16	ns	50

Additional tests investigated whether relationships between hope, coping efficacy and postsecondary plans varied with gender. A Pearson correlation was calculated examining the relationship between male subjects' Total Future scores and (1) general certainty of postsecondary plans, (2) certainty for 4-year college or university, (3) certainty for community college, and (4) certainty for vocational school. As shown in Table 12, a weak but statistically significant negative relationship was found for Total Future scores for males and their reported certainty to attend community college [$r(42) = -.38, p < .05$]. No other significant relationships were found for Total Future scores for males.

A Pearson correlation was calculated between male subjects' Overall Coping scores and (1) general certainty of postsecondary plans, (2) certainty for 4-year College or university, (3) certainty for community college, and (4) certainty for vocational school. The results are shown in Table 13. A weak but statistically significant positive relationship was found for Overall Coping scores for males and certainty for 4-year college or university [$r(146) = .16, p < .05$]. No other significant relationships between Overall Coping scores and educational expectations for males were found.

Table 12

Pearson Correlations for Male Total Future Scores and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson <i>r</i>	<i>p</i>	n
General Postsecondary Education Plans	-.06	ns	161
4-Year College or University	.13	ns	160
Community College	-.38	< .05	44
Vocational School	-.31	ns	32

Table 13

Pearson Correlations for Male Overall Coping Scores and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson <i>r</i>	<i>p</i>	n
General Postsecondary Education Plans	.05	ns	161
4-Year College or University	.16	< .05	148
Community College	-.07	ns	44
Vocational School	-.31	ns	32

The same procedure was followed for female subjects, examining the relationship between female subjects' Total Future scores and (1) general certainty of postsecondary plans, (2) certainty for 4-year College or university, (3) certainty for community college,

and (4) certainty for vocational school. The results are shown on Table 14. A weak but statistically significant relationship was found for female subjects' Total Future scores and certainty of plans for a 4-year college or university [$r(161) = .17, p < .05$]. No other significant relationships were found for females Total Future scores and educational expectations. Pearson correlations calculated examining the relationship between female subjects' Overall Coping scores and the four options for educational expectation found two significant relationships, as shown in Table 15. A weak but statistically significant relationship was found for female Overall Coping scores and general certainty of postsecondary plans [$r(162) = .25, p < .01$]. Similarly, a weak but statistically significant relationship was found for female Overall Coping scores and certainty for 4-year college or university [$r(161) = .24, p < .01$]. No other significant relationships were found for female Overall Coping scores and educational expectations.

Table 14

Pearson Correlations for Female Total Future Scores and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson r	p	n
General Postsecondary Education Plans	.06	ns	164
4-Year College or University	.17	< .05	163
Community College	-.04	ns	37
Vocational School	.30	ns	20

Table 15

Pearson Correlations by Female Overall Coping Scores and Certainty of Educational Plans

Educational Plan Certainty Level	Pearson r	p	n
General Postsecondary Education Plans	.25	< .01	164
4-Year College or University	.24	< .01	163
Community College	.21	ns	37
Vocational School	.14	ns	20

Analyses Using Kruskal-Wallis H Tests

To provide additional information about the relationships among hope, coping efficacy, and postsecondary plans, initially two one-way ANOVAs were performed. However, the descriptive data for the four groupings indicated a large disproportion between samples in each cell. Therefore, the more appropriate Kruskal-Wallis H Test was conducted for each of the independent variables, Overall Coping and Total Future scores, and a grouping variable. The grouping variable was constructed by classifying subjects into four groups reflecting four levels of self-reported certainty on the Survey of Postsecondary Plans: (1) certainty for 4-year college or university; (2) certainty for community college; (3) certainty for vocational school; (4) uncertain/no plans for postsecondary education.

A Kruskal-Wallis test was conducted comparing the Total Future scores and the four groups of self-reported certainty of postsecondary educational plans. As shown in Table 16, a significant result was found [$H(3) = 10.07$, $p < .01$], indicating that at least one pair of group mean ranks differed significantly. The significant difference between groups was indicated between the two groups with the largest difference in rank. These findings were consistent with the ANOVA and post hoc tests conducted previously on the same data. Table 17 lists the mean ranks for the four groups.

Table 16

Kruskal-Wallis Test Statistics for Total Future Scores and Four Groups

<i>df</i>	<i>Chi-Square</i>	<i>p</i>
3	10.072	.01

Table 17

Kruskal-Wallis Groups and Mean Ranks for Total Future Scores

Group #	Description	n	Mean Ranks of Total Future Scores
Group 1	Subjects reporting certainty for 4-year college or university	239	169.76*
Group 2	Subjects reporting certainty for community college	31	116.47
Group 3	Subjects reporting certainty for vocational school	7	164.21
Group 4	Subjects reporting uncertainty or no plans for postsecondary education	45	148.26
Total		322	

Note: *Although mean ranks are not standard statistics, they are reported because disproportions among group frequencies mandated use of a non-parametric test based on medians rather than standard ANOVAs.

A Kruskal-Wallis test was conducted comparing the Overall Coping scores and the four groups of self-reported certainty of post-secondary educational plans. As shown in Table 18, a significant result was found [$H(3) = 14.19, p < .003$] indicating that at least one pair of group medians differed significantly. These findings also were consistent with the ANOVA and post hoc tests conducted on the same data. Table 19 lists the mean ranks for the four groups.

Table 18

Kruskal-Wallis Test Statistics for Overall Coping Scores and Four Groups

<i>df</i>	<i>Chi-Square</i>	<i>p</i>
3	14.197	.003

Table 19

Kruskal-Wallis Groups and Mean Ranks for Overall Coping Scores

Group #	Description	N	Mean Ranks of Overall Coping Scores
Group 1	Subjects reporting certainty for 4-year college or university	228	164.61*
Group 2	Subjects reporting certainty for community college	28	124.98
Group 3	Subjects reporting certainty for vocational school	6	121.67
Group 4	Subjects reporting uncertainty or no plans for postsecondary education	44	118.43
Total		306	

Note: *Although mean ranks are not standard statistics, they are reported because disproportions among group frequencies mandated use of a non-parametric test based on medians rather than standard ANOVAs.

Analyses Using Multiple Linear Regressions

Additional analyses were performed to obtain more precise information about relationships between the two independent variables (Overall Coping scores and Total Future scores) and the dependent variables (1) certainty level for 4-year college/university, (2) certainty level for community college, and (3) certainty level for vocational school. Three multiple regressions were performed, one for each of these dependent variables. For each of these regressions, Overall Coping scores and Total Future scores were used as the independent variables. Tables 20 to 22 list the ANOVA summaries for these four regressions. As indicated in the tables, one of the three regressions was statistically significant. R^2 analyses were performed to indicate the proportion of variance of the dependent variable accounted for by the two combined independent variables. Significant regression was found for certainty level-4-year college/university, [$F(2,300) = 6.85, p < .001$], with an R^2 of 4.4%.

As shown in Tables 21 and 22, significant regressions were not found for certainty level for community college [$F(2,73) = 2.14, ns; R^2 = 5.5\%$], or for certainty level for vocational school [$F(2,47) = .724, ns; R^2 = 3\%$].

Table 20

Multiple Linear Regression for Certainty to Plan 4-Year College or University, Total Future Scores, and Overall Coping Scores

<i>R Square</i>	<i>df</i>	<i>F</i>	<i>Sig</i>	<i>SS</i>	
.044	2 300	6.85	.001	Regression	20.163
				Residual	441.243
				Total	461.406

Table 21

Multiple Linear Regression for Certainty to Plan Community College, Total Future Scores, and Overall Coping Scores

<i>R Square</i>	<i>df</i>	<i>F</i>	<i>Sig</i>	<i>SS</i>	
.055	2	2.14	.125 ns	Regression	8.266
	73			Residual	140.931
				Total	149.197

Table 22

Multiple Linear Regression for Certainty to Plan Vocational School, Total Future Scores and Overall Coping Scores

<i>R Square</i>	<i>df</i>	<i>F</i>	<i>Sig</i>	<i>SS</i>	
.030	2	.724	.490 ns	Regression	2.328
	47			Residual	75.592
				Total	77.920

Thus, the combination of Overall Coping scores and Total Future scores together accounted for a statistically significant proportion of variance for certainty level of 4-year college/university. It is noted that the proportions of variance accounted for by the two independent variables combined, even the one that was statistically significant (4.4%), was quite small. Thus, combining the two independent variables together did not result in a substantial increment in the prediction of dependent variable scores. The regressions do, however, compare with the correlations used to test the hypotheses. As previously noted in Tables 6 and 7, weak but statistically significant positive correlations were found

between Total Future scores and reported certainty to attend a 4-year college or university and Overall Coping and certainty to attend a 4-year college or university.

Analyses Using Multiple Discriminant Analyses

The discriminant function is a multivariate technique used to determine the extent to which different populations overlap or diverge. Multiple discriminant analyses were performed as additional analyses for two purposes. The analysis first sought to compare the relative efficacy of the two independent variables (Total Future scores and Overall Coping scores) in accounting for the differences in the profiles of the four groups for the dependent variable. This was investigated by using multiple discriminant analysis with stepwise entry of the two independent variables. Based on the hypotheses test results using Pearson correlations, it was expected that Overall Coping scores would be a stronger predictor of group membership than Total Future scores. Additionally, the analyses were used to determine the degree to which the two independent variables together can correctly classify observations into the four groups. This question was answered by using two multiple discriminant analyses: one with stepwise entry and one with simultaneous entry of the two variables.

In the stepwise procedure, the independent variable that minimizes the overall Wilks' Lambda (i.e., shows the greatest significant increment in predicting group membership) is entered first. As expected, the stepwise procedure first entered the Overall Coping scores into the analysis (Wilks' Lambda exact $F = 5.01$, $df = 3, 300$, $p < .002$), shown in Table 23. Discriminant function 1, using Overall Coping scores as the independent variable, showed a significant canonical correlation of .21 with group

membership, as shown in Table 24. After Overall Coping scores were entered into the discriminant function, the second independent variable, Total Future scores, was not entered into the dominant function because this variable was not sufficiently significant to merit inclusion.. Therefore, it was demonstrated that Total Future scores did not provide a statistically significant increment toward predicting group membership.

Table 23

Wilks' Lambda Statistics for Stepwise Multiple Discriminant Analysis

Statistic	df1	df2	<i>p</i>
5.011	3	300.00	.002

Note: Maximum significance of F to enter is .05.
Minimum significance of F to remove is .10.

Table 24

Summary of Canonical Discriminant Functions for Stepwise Multiple Discriminant Analysis

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.050	100	100	.21

In the simultaneous entry procedure, both independent variables (Overall Coping scores and Total Future scores) were simultaneously entered into the discriminant function. Two statistically discriminant functions were obtained. The Wilks' Lambda statistics and standardized canonical discriminant function coefficients are shown in Tables 25 and 26.

Table 25

Wilks' Lambda Statistics for the Two Discriminant Functions

Test of Function(s)	Wilks' Lambda	Chi-Square	df	<i>p</i>
1	.929	22.18	6	.001
2	.976	7.31	2	.03

Table 26

Standardized Canonical Discriminant Function Coefficients

	Function 1	Function 2
Total Future Scores	-.19	1.16
Overall Coping Scores	1.09	-0.45

It was clear that the Overall Coping scores significantly accounted for the differences among the groups, as demonstrated by the stepwise procedure. In addition, it was clear that Overall Coping scores better predicted group membership than Total

Future scores because Total Future scores did not reach the criterion for inclusion into the discriminant function. Although the stepwise discriminant function showed a significant effect due to Overall Coping scores, the practical utility of using this information to classify observations into groups did not show an improvement about chance.

Summary

This chapter reviewed the findings of statistical procedures employed to test the hypotheses and to identify relationships among levels of hope, coping efficacy, and postsecondary educational plans for high school seniors. In the full research study, subjects were 325 students in 24 classes of English IV. Each was surveyed using the Future Scale, Coping Efficacy Index, and the Survey of Postsecondary Plans. Descriptive statistics revealed a racially diverse sample and even split by gender. Two general hypotheses with three sub-hypotheses were tested using the Pearson product-moment correlation. Additional tests were performed by Kruskal-Wallis H tests, multiple linear regressions, and discriminant function analyses.

Findings revealed moderate intercorrelations between subscales for the instruments used for the independent variables, Future Scale, measuring levels of hope, and the Coping Efficacy Index, measuring levels of coping efficacy, supporting the use of total scores for each scale. Tests of the hypotheses were performed using the Total Future Scores and Overall Coping Scores for the independent variables. These were tested against three options for certainty of postsecondary education as well as a general certainty of postsecondary education, which was a product of the former three. A Pearson correlation showed a significant correlation between Total Future scores and the certainty

to plan to attend a 4-year college or university. Thus, the null hypothesis 1A, levels of hope in high school seniors are not related to the certainty of subjects' expectations to attend a 4-year college or university, was rejected ($p < .05$), and the corresponding conceptual hypothesis was supported.

Pearson correlations also were calculated for coping efficacy and the certainty of postsecondary educational plans. A statistically significant weak correlation was found for general certainty of educational plans and the Overall Coping scores. The null general hypothesis 2, overall coping efficacy in high school seniors is not related to postsecondary educational expectations, was rejected ($p < .05$), supporting the corresponding conceptual hypothesis. A statistically significant but weak correlation also was found with certainty of plans to attend a 4-year college or university and Overall Coping scores. The null hypothesis 2A, overall coping efficacy in high school seniors is not related to the certainty of the subjects' expectations to attend a 4-year college or university, was rejected ($p < .05$). Analysis of the data for the subscales revealed statistically significant but weak correlations with the Future Scale Agency subscales and 4-year college or university; Coping Efficacy Index Personal Coping subscales and 4-year college or university; and Coping Efficacy Index Interpersonal Coping subscales and both general certainty for postsecondary education and 4-year college or university.

Pearson correlations to examine relationships between the Future Scale and postsecondary expectations and for Overall Coping scores and postsecondary expectations were calculated by gender. A statistically significant but weak negative association was found between male Total Future scores and certainty for community college ($p < .05$). A statistically significant but weak positive relationship was found for

males for Overall Coping scores and certainty for 4-year college or university ($p < .05$). For females, a statistically significant but weak positive relationship was found for Total Future scores and certainty for 4-year college or university ($p < .05$); Overall Coping scores and general certainty for postsecondary education ($p < .01$); and for Overall Coping scores and certainty for 4-year college or university ($p < .01$).

To obtain additional information, one-way ANOVAs were performed on Total Future scores and Overall Coping scores, respectively. However, the descriptive data for the four groupings indicated a large disproportion between samples in each cell. Therefore, the more appropriate Kruskal-Wallis H Test was conducted for each of the independent variables, Overall Coping and Total Future scores, and a grouping variable. The grouping variable was constructed with the four groups representing certainty for four postsecondary educational options: (1) 4-year college or university; (2) community college; (3) vocational school; and (4) uncertain/no plans for postsecondary education. A significant result was found for both tests, indicating that the groups differed significantly from each other. The Kruskal-Wallis does not permit a post hoc test, and, therefore, no information was available about which means differ. Some cells were small, and assumptions should be made with caution.

Additionally, three multiple linear regressions were performed to assess the degree to which the two combined independent variables (hope and coping efficacy) together predicted postsecondary educational plans for 4-year college/university, community college, and vocational school. One of the regressions was statistically significant (certainty level for 4-year college/university). However, it was noted that the

combined independent variables did not result in a substantial increment in the prediction of dependent variable scores.

Finally, analyses were performed with multiple discriminant analyses, both stepwise and simultaneous entry. Overall Coping scores significantly accounted for differences among the groups and predicted group membership better than the Total Future scores in the stepwise procedure. In the simultaneous entry discriminant analysis, two statistically significant discriminant functions were obtained. Although the stepwise discriminant function showed a significant effect due to Overall Coping scores, the practical utility of using this information to classify observations into groups did not show an improvement about chance.

CHAPTER FIVE

Summary, Conclusions, Limitations, Recommendations and Implications for Education

Summary

The purpose of this study was to examine the relationships between each of the two independent variables, hope and coping efficacy, with postsecondary educational plans for high school seniors. The research questions and hypotheses were predicated on the belief that students characterized by greater hope and self efficacy will set higher educational goals.

Three hundred and twenty-five students enrolled in English IV classes from seven high schools in three different school districts in north central Louisiana completed three survey instruments selected for this study. This sample represents 19.3% for the total population of 12th grade students enrolled in English IV classes from the three school districts. According to Crowl (1996), a sample of 10% of the population can be sufficient for research when the aim is to generalize findings to a population. Standard descriptive statistics were derived as appropriate for each of the independent and dependent variables. An ex post facto design was used to test two general hypotheses: (1) Level of hope in high school seniors is positively related to postsecondary educational expectations, and (2) Overall coping efficacy in high school seniors is positively related postsecondary educational expectations. Each general hypothesis contained three sub-hypotheses. The two hypotheses sets were analyzed using the Pearson product-moment

correlation. Pearson correlations were also performed to investigate whether relationships between hope, coping efficacy and postsecondary plans varied according to gender.

Kruskal-Wallis H tests were performed to gain additional information about the relationships between hope, coping efficacy, and postsecondary plans. A grouping variable was constructed by classifying subjects into four groups according to the four levels of self-reported certainty for educational plans (4-year college or university, community college, vocational school, or uncertain/no plans for postsecondary education).

Additional testing also was conducted with multiple linear regressions to obtain more precise information about relationships between the variables. The two independent variables, Overall Coping scores and Total Future scores, were combined and used for the three dependent variables (certainty level for 4-year college/university, certainty level for community college, and certainty level for vocational school). Analyses also were performed with multiple discriminant analyses, both stepwise and simultaneous entry.

The hope theory of Snyder (1994) and the social cognitive theory of Bandura (1997) provided the theoretical framework for this study. Germane to both of these theories is the concept that goal pursuit is essential for life satisfaction, and intentionality of human agency is a necessary principle to goal orientation.

The literature supports the association between goals and the two constructs, hope and coping efficacy. Snyder (1994) noted that persons reporting higher hope tend to operate with several goals at one time, with more difficult goals than low-hope people, and are more likely to accomplish these goals. Snyder also suggested that "hope is a very powerful predictor of the difficulty of goals that students undertake" (p. 52).

Coping efficacy also contributes to individuals' successes in setting and completing goals. As observed by Bandura (1997), efficacy beliefs are essential for effective thought processes, enhanced levels of motivation, and affective states that precede performance. Bandura et al. (2001) determined self-efficacy to be a pivotal factor in career development, leading individuals to consider some options and foreclose others. Young people who believe in their capabilities (i.e., have high coping efficacy) perceive difficult tasks as challenges to be mastered and are less threatened by them. Therefore, it may be said that efficacious high school students are more likely to embrace continued educational challenges and construct plans to meet those challenges.

Conclusions

Two general hypotheses were stated, each with three additional hypotheses embedded. The hypotheses of the study were tested at the $p < .05$ two-tailed level of significance.

The first set of hypotheses was constructed to examine the relationship between levels of hope and postsecondary expectations of the subjects. The second set of hypotheses examined the relationship between coping efficacy and postsecondary expectations. In testing the hypotheses using Pearson correlations, nine tests (including those performed by gender) indicated statistically significant relationships. Of these a greater number (six) were associated with postsecondary educational expectations and Coping Efficacy Index scores.

Two Kruskal-Wallis H tests were performed to determine if significant differences existed for hope and coping efficacy between groups constructed from four

levels of educational plans. In each, a significant difference between groups was found for each test. Additional analyses were performed to obtain more precise information about relationships between the two independent variables (Total Future scores and Overall Coping scores) and three dependent variables (certainty level-4-year college, certainty level-community college, certainty level-vocational school). Three multiple regressions were performed, one for each of the four dependent variables.

General Research Hypothesis 1: levels of hope in high school seniors are positively related to postsecondary educational expectations. This hypothesis and sub-hypotheses 1A, 1B, and 1C were tested using Pearson product-moment correlation coefficients. Levels of hope were measured using the Future Scale (Snyder, Harris et al., 1991). Postsecondary educational expectations were a reflection of the subjects' self reported certainty of pursuing education beyond high school graduation. Educational options for this variable were 4-year college or university, community college, or vocational school. This hypothesis was tested using the Pearson product-moment correlation coefficients with significance level set at $p < .05$ two tailed. Data analysis revealed no significant relationship between levels of hope and subjects' general certainty of plans for postsecondary education, and, therefore, did not support the general research hypothesis. A split file correlation was also conducted, combining subject responses for "undecided" and "do not plan to attend" into one value that was compared to "do plan to attend." No significant relationship was found with this test. An analysis by gender did not reveal a statistical significant relationship between levels of hope and general certainty of plans for postsecondary education. This finding was consistent with hope and gender research (Snyder, Hoza et al., 1997; Curry et al., 1997; Snyder, 2002) which

reported no differences between girls and boys or men and women and hope. The researcher did not reject the null hypothesis for General Research Hypothesis 1. In general, it was concluded that higher hope students do not indicate higher general certainty for seeking postsecondary education.

Research Hypothesis 1A: levels of hope in high school seniors are positively related to the certainty of the subjects to attend a 4-year college or university in the next year. Data analysis showed a weak but statistically significant positive correlation between levels of hope and subjects' reported certainty to attend a 4-year college or university. The researcher rejected the null hypothesis 1A for the sample.

A more precise analysis was performed with a Pearson correlation to discern whether subscales of the two measures for the independent variable revealed more relationships among the subscale variables. A weak but statistically significant positive correlation was found for the certainty of attending a 4-year college or university and the Agency subscale of the Future Scale. Significant subscale intercorrelations reinforced a pattern that the greatest number of correlations occurred between the independent variables and the certainty of plan to attend a 4-year college or university.

In addition, an analysis by gender for research hypothesis 1A revealed a weak but statistically significant positive relationship between females' levels of hope and their reported certainty to attend a 4-year college or university. No statistically significant relationship was found between males' levels of hope and their reported certainty to attend a 4-year college or university. The data suggested a trend indicating students with higher levels of hope report higher certainty about attending a 4-year college or university. A trend also was indicated that within the whole sample, levels of hope for

female subjects are more closely positively related to plans for 4-year college or university than for male subjects. It was noted that the modest level of significance did not vary from previous research for hope and gender.

Research Hypothesis 1B: Among high school seniors not planning to attend a 4-year college or university, levels of hope are positively related to certainty for these subjects to attend a community college. In addition to colleges and universities, other educational options exist for students post high school, and the researcher presumed that some students would elect to attend an educational program other than a traditional 4-year college or university. For the subjects as one group, no significant relationship was found between levels of hope and certainty of plans to attend a community college. The data suggested that higher hope students who do not plan to attend a 4-year college or university do not indicate higher certainty for attending a community college. An unexpected weak but statistically significant negative relationship was found, however, between levels of hope and plans to attend a community college for males. A negative relationship for males in this hypothesis suggests that higher hope males indicate lower certainty to attend a community college. Since the hypothesis was directional, the null hypothesis 1B for the overall sample was accepted.

Research Hypothesis 1C: Among high school seniors not planning to attend a 4-year college or university or a community college, levels of hope are positively related to the subjects' certainty of attending a vocational school. The final option for postsecondary education provided subjects was vocational school. The researcher presumed that some students who chose not to attend a 4-year college or university or a community college would elect to seek vocational training in a trade. The data revealed

no significant relationships between levels of hope and certainty of attending vocational school for either the total sample or by gender. Thus, the researcher accepted the null hypothesis 1C.

General Research Hypothesis 2: Overall coping efficacy in high school seniors is positively related to postsecondary educational expectations. This hypotheses set was based on the assumption set forth by Bandura (2001) that individuals develop the ability to give shape to their expectations and regulate the execution of plans with increased efficacy. This hypothesis and sub-hypotheses 2A, 2B, and 2C were tested using Pearson product-moment correlation coefficients. Significant statistical correlations were found in the three tests performed for Overall Coping scores and general certainty of educational plans. A weak but statistically significant positive correlation was found between Overall Coping Index scores and general certainty of educational plans. When the file was split, combining “undecided” and “do not plan to attend” responses into one file and testing them with “do plan to attend” responses, a weak but statistically significant positive correlation was found between Overall Coping scores and general certainty of educational plans. An analysis by gender found a weak but statistically significant correlation between females’ Overall Coping scores and general certainty of postsecondary plans.

A more precise analysis was conducted between the general certainty for plans to attend a postsecondary institution and subscales of the Coping Efficacy Index. A weak but statistically significant correlation was found for Interpersonal Coping, one subscale of the Coping Efficacy Index, and general certainty of plans. The data suggest that students with higher coping efficacy indicate a higher level of general certainty about

attending a postsecondary institution in the next year, supporting the research hypothesis. The researcher rejected the general null hypothesis 2 for the sample.

Research Hypothesis 2A: Overall coping efficacy in high school seniors is positively related to the certainty of the subjects to attend a 4-year college or university in the next year. A weak but statistically significant positive correlation was found between total subjects' Overall Coping scores and the certainty to attend a 4-year college or university. When the data were analyzed by gender, a weak but statistically positive correlation was found between females' Overall Coping scores and level of certainty to attend a 4-year college or university. A weak but statistically significant positive correlation was found between males' Overall Coping scores and level of certainty to attend a 4-year college or university. Weak but statistically significant positive correlations also were found between Personal Coping scores and Interpersonal Coping scores, the two subscales for the Coping Efficacy Index, and the certainty of attending a 4-year college or university. The data consistently suggest that students with higher coping efficacy indicate a higher level of certainty about plans to attend a 4-year college or university in the next year. Thus, the researcher rejected the null hypothesis for the sample, and the Research Hypothesis 2A was supported by the data.

Research Hypothesis 2B: Among high school seniors not planning to attend a 4-year college or university, levels of hope are positively related to certainty for these subjects to attend a community college. Pearson correlations were calculated examining the relationship between subjects' Overall Coping scores and the certainty to plan to attend a community college. No statistically significant correlation was found for Overall

Coping scores and the certainty for attending a community college for either the whole sample or by gender. The researcher did not reject the null hypothesis 2B.

Research Hypothesis 2C: Among high school seniors not planning to attend a 4-year college or university or a community college, levels of hope are positively related to the subjects' certainty of attending a vocational school in the next year. As with the previous hypothesis and the Research Hypothesis 1C, no statistically significant correlation was found for Overall Coping scores and the certainty for attending a vocational school for either the whole sample or by gender. The researcher did not reject the null hypothesis 2C. This finding contrasted with at least one study (Bacchini & Magliulo, 2003) which found that vocational school students indicated higher perceptions of self-efficacy, perhaps owing to the practicality of the curriculum for direct application.

Initially, a one-way ANOVA was computed comparing hope and postsecondary plans. However, as indicated in Tables 17 and 19, the descriptive data for the four groupings indicated a large disproportion between group sample sizes. Therefore, the more appropriate Kruskal-Wallis H Test was conducted for the independent variable Total Future scores and a grouping variable. The grouping variable constructed included four levels of self-reported certainty for postsecondary plans (4-year college or university, community college, vocational school, or uncertain/no plans for postsecondary education). A statistically significant difference was found among the four groups ($p < .05$).

A one-way ANOVA also was computed comparing coping efficacy and postsecondary plans. However, the descriptive data for the four groupings indicated a large disproportion between samples in each cell in this test, also. Therefore, the more

appropriate Kruskal-Wallis H Test was conducted for the independent variable Overall Coping scores and a grouping variable. The grouping variable constructed included four levels of self-reported certainty for postsecondary plans (4-year college or university, community college, vocational school, or uncertain/no plans for postsecondary education). Again, a statistically significant difference was found among the four groups ($p < .05$).

Additional analyses with a series of three multiple regressions were performed to obtain more precise information about relationships between the two independent variables and three of the dependent variables. Overall Coping scores and Total Future scores were combined and tested with the three dependent variables (certainty level for 4-year college/university, certainty level for community college, and certainty level for vocational school). R^2 analyses were performed to indicate the proportion of dependent variable variance accounted for by the two combined independent variables. The combination of Overall Coping scores and Total Future scores accounted for a statistically significant proportion of variance for certainty level-4-year college/university. However, the proportion of variance that was statistically significant was quite small and, it was, therefore, concluded that the two independent variables together did not result in a substantial increment in the prediction of dependent variable scores.

Finally, additional analyses were performed with multiple discriminant analyses, both stepwise and simultaneous entry. Overall Coping scores significantly accounted for differences among the groups and predicted group membership better than the Total Future scores in the stepwise procedure. However, the practical utility of using this

information to classify observations into groups did not show an improvement about chance.

Although the tests for the hypotheses yielded modest significant findings, a consistent pattern of evidence from a series of statistical tests supported one general conclusion that the independent variables (Future Scale and Coping Efficacy Index) were significantly related to postsecondary educational expectation. More specifically, the Coping Efficacy Index was found to correlate with postsecondary plans in tests more often than the Future Scale. This finding was reinforced with the subsequent Kruskal-Wallis tests and multiple linear regressions.

Recommendations

Several recommendations for future research are made to strengthen the study and to obtain more meaningful data. It is recommended that future studies be conducted on a larger, more diverse population. This study was conducted in three school districts in a limited geographic area. It is recommended that great care be taken in generalizing results to other geographic areas. The responses of subjects in this study could be products of the geographic culture and the homogeneity of the subjects. Further study could be conducted to include schools in districts in other parts of Louisiana and other states.

It is also recommended that sample size be increased. Studies on hope have involved thousands of people at various stages of life (Onwuegbuzie & Daley, 1999; Snyder, 1999; Snyder, Cheavens, et al., 1999; Snyder, Cheavens, et al., 1997; Snyder, Harris, et al., 1991; Snyder, Hoza, et al., 1997; Snyder, Lopez, et al., 2003; Worrell, & Hale, 2001). Snyder, Cheavens, et al., (1997) described research of over 10,000 adults

from various locations in the United States in the first decade of use of the Hope Scale. Just as prolific, research on efficacy has been conducted on samples as large as 8,000 young people (Caraway & Tucker, 2003). The literature does not reflect studies of either of the constructs, hope and coping efficacy, and postsecondary plans. Therefore, additional research on this topic with a wider sample will relate more appropriately to existing studies.

Several extraneous factors may influence the variables of this study. This study of hope, coping efficacy, and postsecondary plans did not consider grade point average as a factor. Snyder (2002) and Caraway, Tucker et al., (2003) report that hope and self-efficacy, respectively, are factors in academic performance. Research is needed to determine if academic performance related to hope and efficacy are predictors of postsecondary expectations. Consideration should be given to using measures such as school performance scores as a variable for such study.

Certain factors, such as race, ethnicity, and family income may potentially interact with the variables of this study. It will be useful to conduct research to determine if family socio economic status and parents' education are related to hope, coping efficacy, and postsecondary plans. Studies comparing race and ethnicity to hope, coping efficacy, and postsecondary plans are also suggested.

As noted previously, both hope and coping efficacy have been studied over the lifespan. Certain developmental factors may influence students and their postsecondary educational plans. Therefore, it is recommended that comparisons at grade levels be made via a longitudinal study to determine if hope, coping efficacy, and postsecondary plans

are related consistently. One recommendation is to survey students in English classes beginning in English I, drawing comparisons over the four years of high school.

Meaningful data and insights may be obtained about student hope and efficaciousness through qualitative research. Valuable data about certain adolescent dispositions related to plans for the future can be explored through ethnographic study of students in natural settings.

Implications for Education

The data obtained from this study have implications for educators who desire to assist high school students in developing forethought and a life goal orientation. Snyder (1994) and Bandura (1997) agree that goals and goal pursuit are essential for life satisfaction. The results of this study suggest that students characterized by greater self efficacy and hope will set higher educational goals. This information can be the framework upon which parents, teachers, counselors and administrators build programs to enhance the development of emotional competencies and cognitive motivation.

Although both instruments used to measure the independent variables (Future Scale and Coping Efficacy Index) have been widely researched, the researcher for this study acknowledges modest findings. More study is needed to determine whether these measures would prove valuable and cost effective assessment tools for school settings.

The modest results of the study do, however, indicate a trend in student educational planning as associated with higher levels of hope and coping efficacy. The literature suggests that both hope and coping efficacy can be acquired. The researcher suggests that this study be shared with school counselors throughout the state of

Louisiana in an effort to encourage program development initiatives with teachers. Counselors can be the catalysts for engendering hope and self efficacy by training teachers to design activities that enhance these cognitions. Classroom content can be infused with opportunities for young people to share their stories of successes in making decisions and overcoming obstacles (Snyder et al., 2002). Snyder and Shorey (2002) advocate psychology classes for even young children to increase self awareness about the way they think, feel, and behave. They also encourage initiatives that increase teacher awareness of their own hopeful thinking, noting that high-hope teachers establish atmospheres of learning that promote hopeful thinking and goal acquisition. Snyder, Lopez et al. (2003) suggest that an important skill to teach children is to identify clear “markers” for goals, minimizing the frustration of vague and distant goals (p. 128). Professional development programs can assist teachers in modeling and demonstrating effective goal setting.

Snyder (1994), McDermott and Snyder (1999), Snyder, Hoza et al. (1997), and Snyder, McDermott et al. (2002) reported evidence that a nurturing caregiver was an essential element in the development of hope in children. Adults can model both hope and coping efficacy through their goal pursuits. Parents can be aided through training by professionals to serve as appropriate models for their children and to use verbal persuasion to encourage goal pursuit. Mentoring programs are valuable vehicles in exposing students to adults and older students as they model effective decision making.

Bandura (1997) posited individuals can adopt higher efficacy thinking. He called for sociocultural change, inviting people to displace entrenched customs and thought processes. Bandura noted that such change is possible only if people are equipped with

skills, beliefs of personal efficacy, and incentives to reframe their thinking. This researcher suggests professional development initiatives for teachers to evaluate their personal efficacy beliefs and explore how these beliefs influence their instruction. With this knowledge as a foundation, teachers can be assisted in acquiring strategies for engendering efficacious thinking in their students. Through initiatives such as these, educators can assist children in laying the foundation for making rewarding choices.

One finding revealed by the data in this study was particularly interesting and relevant for educators. The data showed that 68.4% of subjects reported certainty for plans to attend a postsecondary educational program in the next year; of those, 84% reported plans to attend a 4-year college or university or a community college. This finding is contrasted with the most recent data provided by the Louisiana Department of Education (Louisiana First-Time College Freshmen State Report: Fall 2002, 2003), which revealed that 42% of Louisiana public high school graduates enrolled in two and four-year colleges as freshmen in 2001. The disproportion between the data from the Department of Education report and this study may be explained by subjects feeling social pressure to respond affirmatively to inquiries about continuing their education. Another explanation is that students are unrealistic about their plans, and many may be thwarted in their efforts to succeed in a postsecondary setting. Both explanations carry implications for educators to assist students in acquiring skills for setting appropriate goals. Equally important is the charge for educators to help students acquire a sense of efficacy for alternate plans for their future. Betz (2004) underscored the need for school counselors to assist students in recognizing their patterns for underestimating capabilities. Equally important in career counseling is to invite young people to consider career fit

rather than selecting educational programs based upon what they perceive to be a societal expectation. Sociocultural change requires educators to assist young people in learning to set goals and to honor decisions the students make for their educational plans and subsequent career paths.

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APPENDIX A
STUDY/PROJECT INFORMATION
FOR HUMAN USE COMMITTEE

STUDY/PROJECT INFORMATION FOR HUMAN USE COMMITTEE

TITLE: THE RELATIONSHIPS AMONG LEVELS OF HOPE, COPING EFFICACY, AND POSTSECONDARY EDUCATIONAL EXPECTATIONS OF HIGH SCHOOL SENIORS

PROJECT DIRECTOR(S): Linda D. Griffin
Dr. Cathy Stockton

EMAIL: (o) lgriffin@latech.edu
(h) lgriffin@cox-internet.com

PHONE: (o) 257-2488
(h) 251-2614

DEPARTMENT(S): Curriculum, Instruction and Leadership

PURPOSE OF STUDY/PROJECT:

To examine the relationship between a student's level of hope and postsecondary educational expectations and/or coping efficacy and postsecondary educational expectations

SUBJECTS:

Approximately 300 twelfth grade students enrolled in select north central Louisiana parish schools

PROCEDURE:

Permission for the study will be obtained by the school system superintendent, principal of high school, and participating teachers. No data will be collected until permission is granted by these individuals. Parental permission will be obtained for students under 18 years old prior to the study. The researcher-designed instrument Survey of Postsecondary Educational Plans will be given as a pilot administration to one class of students via English IV class. Following that, approximately 300 students in three separate schools will be given the three instruments via English IV classes.

INSTRUMENTS AND MEASURES TO INSURE PROTECTION OF CONFIDENTIALITY, ANONYMITY:

Three instruments will be used for the study: The Future Scale (Snyder, 1991), Coping Efficacy Index (Milford, 2002), and the Survey of Postsecondary Educational Plans, designed by the researcher. Only students 18 years and older or those from whom parental consent has been obtained will be surveyed. Informed consent will be obtained from all student participants. Only group data will be reported, and no student names will be associated with surveys or used in reporting of findings.

RISKS/ALTERNATIVE TREATMENTS:

The study is completely voluntary and involves no physical contact or treatment. Participation in the study will not in any way affect the student's grade. All surveys will be conducted by a Licensed Professional Counselor.

BENEFITS/COMPENSATION:

Teachers and Principals in participating schools will receive a summary of results of the research upon completion.

SAFEGUARDS OF PHYSICAL AND EMOTIONAL WELL-BEING:

The study involves no physical contact or treatment. Participants will be fully informed about the study and their rights to participate or decline to participate in the study. All surveys will be conducted by a Licensed Professional Counselor.

APPENDIX B
HUMAN USE COMMITTEE REVIEW



LOUISIANA TECH UNIVERSITY

OFFICE OF UNIVERSITY RESEARCH

MEMORANDUM

TO: Linda D. Griffin, Dr. Cathy Stockton
FROM: Nancy Fuller, University Research
SUBJECT: HUMAN USE COMMITTEE REVIEW
DATE: 1/07/05

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

"The Relationships Among Levels of Hope, Coping Efficacy, and Post Secondary Educational Expectations of High School Seniors"
Proposal # HUC-120

The proposed study procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Further, the subjects must be informed that their participation is voluntary.

Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

This approval is granted for one year from the date shown above. Projects should be renewed annually. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of University Research.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study.

If you have any questions, please contact Mary Livingston at 257-2292.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 3092 • RUSTON, LA 71272 • TELEPHONE (318) 257-5075 • FAX (318) 257-5079

APPENDIX C
HUMAN USE CONSENT FORM

HUMAN SUBJECTS CONSENT FORM

The following is a brief summary of the project in which you are asked to participate. Please read this information before signing the statement below.

TITLE OF PROJECT:

THE RELATIONSHIPS AMONG LEVELS OF HOPE, COPING EFFICACY, AND POSTSECONDARY EDUCATIONAL EXPECTATIONS OF HIGH SCHOOL SENIORS

PURPOSE OF STUDY/PROJECT:

To examine the relationship, if any, between a student's level of hope and postsecondary educational expectations and/or coping efficacy and postsecondary educational expectations

PROCEDURE:

Parental permission will be obtained for students under 18 years old prior to the study. The researcher designed instrument Survey of Postsecondary Educational Plans will be given as a pilot administration to one class of students via English IV class. Following that, approximately 300 students will be given the three instruments via English IV classes.

INSTRUMENTS:

Three instruments will be used for the study: The Future Scale (Snyder, 1991), Coping Efficacy Index (Milford, 2002), and the Survey of Postsecondary Educational Plans, designed by the researcher. Only students 18 years and older or those from whom parental consent has been obtained will be surveyed. Informed consent will be obtained from all student participants. Only group data will be reported, and no student names will be associated with surveys or used in the reporting of findings.

RISKS/ALTERNATIVE TREATMENTS:

There are no risks associated with participation in this study. It requires completion of a survey composed of the aforementioned instruments. There are no alternative treatments. Participation is voluntary. All surveys will be conducted by a Licensed Professional Counselor.

BENEFITS/COMPENSATION:

Teachers and Principals in participating schools will receive a summary of results of the research upon completion.

I, _____, attest with my signature that I have read and understood the following description of the study, "The Relationships Among Levels of Hope, Coping Efficacy, and Postsecondary Educational Expectations of High School Seniors", and its purposes and methods. I understand that my participation in this research is strictly voluntary and my participation or refusal to participate in this study will not affect my relationship with my school or my grades in any way. Further, I understand that I may withdraw at any time or refuse to answer any questions without penalty. Upon completion of the study, I understand that the results will be freely available to me upon request. I understand that the results of my survey will be confidential, accessible only to the principal investigators, myself, or a legally appointed representative. I have not been requested to waive nor do I waive any of my rights related to participating in this study.

Signature of Participant (18 years of age or older)

Date

CONTACT INFORMATION: The principal experimenters listed below may be reached to answer questions about the research, subjects' rights, or related matters.

Linda D. Griffin 257-2488
 251-2614
Dr. Cathy Stockton 257-3229

Members of the Human Use Committee of Louisiana Tech University may also be contacted if a problem cannot be discussed with the experimenters:

Dr. Les Guice (257-3056)
Dr. Mary M. Livingston (257-2292)
Ms. Nancy Fuller (257-5075)

APPENDIX D
HUMAN USE CONSENT FORM –
PARENTAL PERMISSION

Informed Consent Form for Study: The Relationships Among Levels of Hope, Coping Efficacy, and Postsecondary Educational Expectations of High School Seniors

Your child is being asked to participate in a study conducted through Louisiana Tech University's College of Education and the Louisiana Education Consortium. Students under the age of 18 must have parental permission to participate in this study. Please read the following information and, if you consent to your child's participation, sign the attached consent form and ask your child to return the form to his/her English teacher.

DESCRIPTION OF THE STUDY

Purpose of the Study:

To examine whether there is a relationship between a student's level of hope and postsecondary educational expectations and/or coping ability and postsecondary educational expectations.

Procedure:

Students will be administered three surveys during their English IV class at a prearranged time. The administration of all three surveys will take a total of approximately 40 minutes.

Risks/Alternate Treatments:

There are no risks associated with participation in this study. Participation in this study will not in any way affect the student's grade. Only data from minor students whose parents grant permission and students over age 18 will be used in the analysis. All survey administrations will be conducted by a Licensed Professional Counselor.

Benefits/Compensation:

Teachers and principals in participating schools will receive a summary of results of the research.

Confidentiality:

Only group data will be reported. Surveys will be completed anonymously, and no names of participants will be reported.

Contact Information:

The principal experimenters listed below may be contacted to answer any questions about the research, subjects' rights, or related issues:

Linda D. Griffin	257-2488 (w)	Dr. Cathy Stockton	257-3229
	251-2614 (h)		

Members of the Human Use Committee of Louisiana Tech University can also be contacted if a concern cannot be discussed with the experimenters:

Dr. Les Guice (257-3056)	Ms. Nancy Fuller (257-5075)
Dr. Mary Livingston (257-4315)	

PARENTAL CONSENT

I attest with my signature below that I have read and understand the above description of this study and its purpose and methodologies. I understand that my minor child's participation in this research is strictly voluntary. Further, I understand that I may withdraw my minor child at any time without penalty and that my minor child may refuse to answer questions without penalty. I understand that, upon completion of the study, the group results will be freely available upon request. I understand that only group data will be reported and my minor child's name will not be used in the reporting of findings of this study. Finally, I understand that my minor child's grade will not be affected in any way by his/her participation or lack of participation in this study.

I have not been requested to waive, and I do not waive any of my rights or my child's rights related to participating in this study.

I understand the above explanations and instructions and hereby give my consent for my child, _____, to voluntarily participate in this study.

Parent/Guardian Signature

Date

STUDENT CONSENT

I agree to participate in the study described above, and I understand that neither my grade nor my relationship with my school will be affected in any way by my participation or lack of participation in this research.

Student's Signature (17 years of age or younger)

Date

APPENDIX E
LETTER TO SUPERINTENDENTS
OF SCHOOLS IN SELECTED SCHOOL
DISTRICTS IN NORTH CENTRAL LOUISIANA

209 North Pinecrest Drive
Ruston, LA 71270
November 1, 2004

Dr. Charles Scriber
Superintendent of Schools
Lincoln Parish
410 South Farmerville Street
Ruston, LA 71270

Dear Dr. Scriber:

I am a doctoral student in the Louisiana Educational Consortium at Louisiana Tech University, working under the direction of major advisor, Dr. Cathy Stockton. Among my interests are the factors that influence the student's decisions about continuing education beyond high school. Thus, I am working on a study entitled *The Relationship of Levels of Hope, Coping Efficacy, and Postsecondary Educational Expectations of High School Seniors*. I am requesting your permission to assess high school seniors via English IV classes in several high schools in Lincoln Parish.

I would like to administer the surveys to a class at Choudrant High School as a pilot study. Administration time for these surveys is approximately 30 minutes. Following that, I would like to administer three surveys to 12th grade students enrolled at other Lincoln Parish schools, measuring student levels of hope, coping efficacy, and educational plans following high school. Total administration time for each class is approximately 30 minutes. Parental permission will be sought for students under 18 years old. The surveys will be completed anonymously, and only group data will be reported. No effort will be made to identify the participants by name or school. A summary of results will be made available to you and all participating teachers and principals. Permission to conduct this research has been granted by the Louisiana Tech University Human Subject Committee (257-5075).

I will appreciate your endorsement of my research, after which I will contact principals and teachers to make arrangements for administration. I appreciate your assistance in this project.

Respectfully,

Linda D. Griffin, M.Ed., LPC, NCC, NCCC

APPENDIX F

LETTER TO PRINCIPALS IN SELECTED

HIGH SCHOOLS IN NORTH CENTRAL LOUISIANA

209 North Pinecrest Drive
Ruston, LA 71270
November 1, 2004

Mr. Henderson, Principal
Ruston High School
Bearcat Drive
Ruston, La 71270

Dear Mr. Henderson:

I am a doctoral student in the Louisiana Educational Consortium at Louisiana Tech University, working under the direction of major advisor, Dr. Cathy Stockton. Among my interests are the factors that influence the student's decisions about continuing education beyond high school. Thus, my dissertation research is a study entitled *The Relationships Among Levels of Hope, Coping Efficacy, and Postsecondary Educational Expectations of High School Seniors*. I am requesting your permission to assess high school seniors via English IV classes at Ruston High School. I have obtained permission from Dr. Scriber for this research.

I would like to administer three surveys to these students, measuring student levels of hope, coping efficacy, and educational plans following high school. Total administration time for each class is approximately 30 minutes. Parental permission will be sought for students under 18 years old. The surveys will be completed anonymously, and only group data will be reported. No effort will be made to identify the participants by name or school. A summary of results will be made available to you and all participating teachers. Permission to conduct this research has been granted by the Louisiana Tech University Human Subject Committee (257-5075).

I will appreciate your endorsement of my research, after which I will contact teachers to make arrangements for administration. I appreciate your assistance in this project.

Respectfully,

Linda D. Griffin, M.Ed., LPC, NCC, NCCC

APPENDIX G
LETTERS TO TEACHERS IN SELECTED
HIGH SCHOOLS IN NORTH CENTRAL LOUISIANA

209 North Pinecrest Drive
Ruston, LA 71270
February 1, 2005

Ms. Rachel Gay
Ruston High School
900 Bearcat Drive
Ruston, La 71270

Dear Ms. Gay:

I am a doctoral student in the Louisiana Educational Consortium at Louisiana Tech University, working under the direction of major advisor, Dr. Cathy Stockton. Among my interests are the factors that influence the high school student's decisions about continuing education beyond high school. Thus, my dissertation research is a study entitled *The Relationships Among Levels of Hope, Coping Efficacy, and Postsecondary Educational Expectations of High School Seniors*. I am requesting your permission to assess students via your English IV classes at Ruston High School. I have obtained permission from Dr. Scriber and Mr. Henderson for this research.

I would like to administer three surveys to these students, measuring student levels of hope, coping efficacy, and educational plans following high school. Total administration time for each class is approximately 40 minutes. Parental permission will be sought for students under 18 years old. The surveys will be completed anonymously, and only group data will be reported. No effort will be made to identify the participants by name or school. A summary of results will be made available to you and all participating teachers. Permission to conduct this research has been granted by the Louisiana Tech University Human Subject Committee (257-5075).

I will appreciate your support and participation in this research. I will contact you within the next week to make arrangements for administration. If you have questions or require more information about this project, I can be contacted through the telephone numbers and email addresses listed below.

Respectfully,

Linda D. Griffin, M.Ed., LPC, NCC, NCCC

Home: 251-2614
lgriffin@cox-internet.com
Office: 257-2488
lgriffin@latech.edu

209 North Pinecrest Drive
Ruston, LA 71270
February 9, 2005

Ms. Rachel Gay
Department of English
Ruston High School
900 Bearcat Drive
Ruston, LA 71270

Dear Ms. Gay:

Thank you for agreeing to allow me to survey your classes in order to gather data on student levels of hope, coping efficacy, and educational plans following high school. As we agreed, I will be visiting your class on Monday, February 14, 2005, beginning at 8:30 AM to survey three of your classes. In accordance with the policies of the Human Subject Committee of Louisiana Tech University, I must obtain parental permission from any of the students who will not be 18 years old on that date. Therefore, I am enclosing informed consent forms to be sent home with the students and returned with parental signature. I will appreciate your distributing the forms and collecting them in the enclosed envelope as they are returned. Students who are or will be 18 before the survey is administered will be asked to sign an informed consent form prior to completing the survey.

I will remind you that the surveys will be completed anonymously, and only group data will be reported. No effort will be made to identify the participants by name or school. A summary of results will be made available to you and all participating teachers. I thank you in advance for encouraging student participation and for distributing and collecting informed consent forms for minor students. I look forward to meeting you.

Respectfully,

Linda D. Griffin, M.Ed., LPC, NCC, NCCC

209 North Pinecrest Drive
Ruston, La 71270
February 14, 2005

Ms. Rachel Gay
Ruston High School
900 Bearcat Drive
Ruston, LA 71270

Dear Ms. Gay:

I want to thank you for allowing me to visit your class today for data collection for my doctoral research. I was very pleased with the amount of data I collected and how smoothly the administration went.

I wanted to let you know how impressed I was with the students who took part in my research. The students were eager to participate, and each of them was courteous and respectful to me. Certainly they provided valuable data to me, but more importantly, they confirmed my faith in young people. If these students are typical of the RHS students you teach, you have a student body of whom you can feel proud.

Upon completion of my dissertation, I will disseminate the findings of my research to all teachers who assisted me. In the meantime, if I can be of service to you or your students as they make their postsecondary plans, please let me know. Again, I thank you for your hospitality and for a pleasant academic experience.

Respectfully,

Linda D. Griffin, M.Ed., LPC, NCC, NCCC

APPENDIX H
SURVEY OF POSTSECONDARY PLANS,
THE FUTURE SCALE, AND THE COPING EFFICACY INDEX

SURVEY OF POSTSECONDARY PLANS

I. Please complete all information below as it best describes you by filling in the circle next to the appropriate answer.

- | | |
|---|---|
| <p>A. Racial/Ethnic Group:</p> <ul style="list-style-type: none"><input type="radio"/> 1. African American or Black<input type="radio"/> 2. Asian American, Oriental, Pacific Islander<input type="radio"/> 3. Caucasian or White<input type="radio"/> 4. Mexican American, Mexican Origin<input type="radio"/> 5. Native American (Indian, Alaskan, Hawaiian)<input type="radio"/> 6. Puerto Rican, Cuban, Other Latino or Hispanic<input type="radio"/> 7. Other<input type="radio"/> 8. I prefer not to respond | <p>B. Gender</p> <ul style="list-style-type: none"><input type="radio"/> 1. Male<input type="radio"/> 2. Female |
| <p>C. Age</p> <ul style="list-style-type: none"><input type="radio"/> 1. 14 or under<input type="radio"/> 2. 15<input type="radio"/> 3. 16<input type="radio"/> 4. 17<input type="radio"/> 5. 18<input type="radio"/> 6. 19 or over | <p>D. Grade classification</p> <ul style="list-style-type: none"><input type="radio"/> 1. 9th grade<input type="radio"/> 2. 10th grade<input type="radio"/> 3. 11th grade<input type="radio"/> 4. 12th grade |
| <p>E. High School Completion Plans</p> <ul style="list-style-type: none"><input type="radio"/> 1. I plan to graduate early<input type="radio"/> 2. I plan to graduate on time<input type="radio"/> 3. I plan to graduate late | <p>F. Overall high school grade point average:</p> <p>_____._____.____.</p> |

II. Please fill in the appropriate circle to indicate your educational plans after high school graduation.

A. How certain are your plans to attend a 4-year college or university next year?

- ☐ 1. I definitely do not plan to attend a 4-year college or university next year.
- ☐ 2. I do not plan to attend a 4-year college or university next year.
- ☐ 3. I am not sure whether I will attend a 4-year college or university next year.
- ☐ 4. I plan to attend a 4-year college or university next year.
- ☐ 5. I definitely plan to attend a 4-year college or university next year.

If you selected answer 1, 2, or 3 for item A, please answer item B.

B. If you do not attend a 4-year college or university, how certain are your plans to attend a community college next year?

- ☐ 1. I definitely do not plan to attend a community college next year
- ☐ 2. I do not plan to attend a community college next year.
- ☐ 3. I am not sure whether I will attend a community college next year.
- ☐ 4. I plan to attend a community college next year.
- ☐ 5. I definitely plan to attend a community college next year.

If you selected answer 1, 2, or 3 for item B, please answer item C.

C. If you do not attend a 4-year college, university, or community college, how certain are your plans to attend a vocational school next year?

- ☐ 1. I definitely do not plan to attend a vocational school next year.
- ☐ 2. I do not plan to attend a vocational school next year.
- ☐ 3. I am not sure whether I will attend a vocational school next year.
- ☐ 4. I plan to attend a vocational school next year.
- ☐ 5. I definitely plan to attend a vocational school next year.

THE FUTURE SCALE

Directions: Please read each item carefully. Using the scale below, select the number that best describes YOU and fill in the circle under the number.

1 = Definitely False 2 = Mostly False 3 = Somewhat False 4 = Slightly False
5 = Slightly True 6 = Somewhat True 7 = Mostly True 8 = Definitely True

- | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----|---|---|---|---|---|---|---|---|---|
| 1. | I can think of many ways to get out of a jam. | O | O | O | O | O | O | O | O |
| 2. | I energetically pursue my goals. | O | O | O | O | O | O | O | O |
| 3. | I feel tired most of the time. | O | O | O | O | O | O | O | O |
| 4. | There are lots of ways around any problem. | O | O | O | O | O | O | O | O |
| 5. | I am easily downed in an argument. | O | O | O | O | O | O | O | O |
| 6. | I can think of many ways to get the things in life that are most important to me. | O | O | O | O | O | O | O | O |
| 7. | I worry about my health. | O | O | O | O | O | O | O | O |
| 8. | Even when others get discouraged, I know I can find a way to solve the problem. | O | O | O | O | O | O | O | O |
| 9. | My past experiences have prepared me well for my future. | O | O | O | O | O | O | O | O |
| 10. | I've been pretty successful in life. | O | O | O | O | O | O | O | O |
| 11. | I usually find myself worrying about something. | O | O | O | O | O | O | O | O |
| 12. | I meet the goals that I set for myself. | O | O | O | O | O | O | O | O |

Snyder, C.R., Harris, C., Anderson, J.R., Holleran, S.A., Irving, L.M., Sigmon, S.T., Yoshinobu, L., Gibb, J., Langell, C., & Harney, P. (1991). The will and the ways: Development and Validation of an individual differences measure of hope. *Journal of Personality and Social Psychology*, 60, 570-585.

COPING EFFICACY INDEX (CEI)

Read each statement listed below. Select the number that best describes how true each statement is for you during the past week and now, and fill in the circle under the number. There are no right or wrong answers. Your answer is your best opinion about you.

Never True (1)	Slightly True (2)	Sometimes True (3)	Often True (4)	Always True (5)
			1	2
			3	4
			5	
1. I worry about my future.			O	O
2. I am a person who worries a lot.			O	O
3. I easily lose sleep over worry.			O	O
4. I worry about things that never happen.			O	O
5. I think a lot about bad things in my past.			O	O
6. I have a hard time making everyday decisions.			O	O
			1	2
			3	4
			5	
7. I put off getting things done on time.			O	O
8. I work hard and try to do things right.			O	O
9. I fail to finish many hard jobs or tasks I start.			O	O
10. I do my best at most things I do.			O	O
11. I try hard to keep from making mistakes.			O	O
12. I get things done right and on time.			O	O
13. I give up easily if a job or task takes lot of effort.			O	O
			1	2
			3	4
			5	
14. I am as smart as most people I know.			O	O
15. I am confident in most things I do.			O	O
16. I will succeed in most things I do.			O	O
17. I am able to make many good things happen for me.			O	O
18. I do see myself as a likeable and capable person.			O	O
			1	2
			3	4
			5	
19. I refuse to trust others with a secret.			O	O
20. I know most people will treat me fair.			O	O
21. If you treat me nice, you want something.			O	O
22. I refuse to believe a lot others tell me.			O	O
23. I find most people are honest with me.			O	O
24. I know most people can not be trusted.			O	O
25. I can trust most people I know.			O	O
26. I fail to believe other's promises to me.			O	O

Never True (1)	Slightly True (2)	Sometimes True (3)	Often True (4)	Always True (5)			
			1	2	3	4	5
27. I like to stay to myself rather than be around others.			O	O	O	O	O
28. I do most of the talking in a group.			O	O	O	O	O
29. I control what happens in a group.			O	O	O	O	O
30. I am a cautious and quiet person around others.			O	O	O	O	O
31. I am more of a leader than a follower.			O	O	O	O	O
			1	2	3	4	5
32. I please others and make them happy.			O	O	O	O	O
33. I show others that I care for them.			O	O	O	O	O
34. I praise and encourage others.			O	O	O	O	O
35. I think about others' needs and wants.			O	O	O	O	O
36. I say things to hurt others' feelings.			O	O	O	O	O
37. I put others' wants before my own.			O	O	O	O	O
38. I forgive others who hurt my feelings.			O	O	O	O	O
39. I am a very agreeable person.			O	O	O	O	O
40. I feel bad if I hurt somebody's feelings.			O	O	O	O	O

Milford, G.E. (1999). *Coping Efficacy Index*. Louisiana Tech University, Ruston, LA