

AN ABSTRACT OF THE DISSERTATION OF

Michelle L. Jensen for the degree of Doctor of Philosophy in Counseling presented on May 1, 2013.

Increasing College-Going Self-Efficacy of Rural Fifth Grade Students

Abstract approved: _____
Gene A. Eakin

The work of professional school counselors in helping students achieve academically and increasing their college-going rates is significant work. Research indicates that high school and even middle school is often too late for students to begin the process of college and career planning.

This dissertation includes two manuscripts. The first manuscript is a review of the literature related to college and career readiness, childhood development of elementary school students, including their college-going self-efficacy, instructional strategies that school counselors should consider employing in presenting college and career readiness units, and factors specific to working with elementary school students in rural areas. The second manuscript describes a study using a time series research design that examined the effect of a college access intervention, *I'm Going to College*, on the college-going self-efficacy of rural fifth grade students ($n = 34$) in an effort to determine the value of early (pre-adolescent) college access interventions. The hypothesis that the *I'm Going to College* curriculum increased the college-going self-efficacy of rural fifth grade students as evaluated by the College-Going

Self-Efficacy Scale (CGSES), was supported. Results indicated that there is a relationship between early college access interventions and college-going self-efficacy of rural fifth grade students as shown by significant change in three of the six items on the CGSES. Implications of this study are discussed.

©Copyright by Michelle L. Jensen
May 1, 2013
All Rights Reserved

Increasing College-Going Self-Efficacy of Rural Fifth Grade Students

by
Michelle L. Jensen

A DISSERTATION

submitted to
Oregon State University

in partial fulfillment of
the requirements for the
degree of

Doctor of Philosophy

Presented May 1, 2013
Commencement June 2013

Doctor of Philosophy dissertation of Michelle L. Jensen presented on May 1, 2013.

APPROVED:

Major Professor, representing Counseling

Dean of the College of Education

Dean of the Graduate School

I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

Michelle L. Jensen, Author

ACKNOWLEDGEMENTS

I owe much gratitude to many individuals. The process of earning my doctorate has changed me through the influence of the people I encountered along the journey. I want to thank my committee: Dr. Stephanie Bauman for her years of influence as a counselor and now counselor educator; Dr. Lori DeKruyf for her standard for excellence and gentle touch; Dr. Kathy Biles for her encouragement and support; and Dr. Richard Nafshun for his willingness to serve. I want to give a special thanks to my committee chair, Dr. Gene Eakin, for his belief in this process; his faith in me never wavered. I am thankful for his mentorship and patience.

There are other professionals whom I appreciate: Dr. Michelle Cox for her dissertation coaching; Dr. Melinda Gibbons for her research and encouragement of mine; and Dr. Cass Dykeman for his input in my research.

Of the many people who influenced me, I must thank those in my cohort. The level of wisdom, knowledge, and diversity in our cohort touched my life. I am most thankful for my writing companions, soon-to-be Dr. Wendy Bruton and Dr. April Waggoner. Your friendship will bless me for a lifetime.

Doctorate degrees do not come without a sacrifice. To my friends, family, and coworkers who sacrificed alongside me, to you I am appreciative.

To my husband and children, I struggle to find words to express my gratitude. Thank you for supporting me in this journey. We did this together. Without sacrificing as a family, I never could have accomplished this dream.

Above all else, I am grateful for the love of my Savior through this process. It is by His grace and mercy that I made it!

CONTRIBUTION OF AUTHORS

Dr. Jeffrey J. Borckardt of Medical University of South Carolina contributed to Chapter Three by conducting statistical analysis on the data and assisting in the interpreting of the data. Dr. Michelle Cox contributed to data analysis and formatting and editing of the final dissertation document. Dr. Paula Belcher contributed to editing of the final dissertation document.

TABLE OF CONTENTS

	<u>Page</u>
Chapter One: General Introduction.....	1
Overview.....	1
College Access and Success	3
Childhood Development of Elementary Students (K-5).....	3
College-Going Self-Efficacy.....	5
Rationale.....	6
Research Question.....	7
Hypothesis.....	7
Glossary of Terms.....	8
Chapter Two: Increasing College-Going Self-Efficacy of Elementary Students (K-5): Utilizing What We Know About Child Development Theory, Possible Selves Theory and Instructional Strategies.....	10
Abstract.....	11
Introduction.....	12
College & Career Readiness.....	13
College- and Career-Readiness in Elementary School....	14
College-Going Culture in the Elementary School.....	15
Childhood Development of Elementary Students (K-5).....	17
Erikson’s Theory of Psychosocial Development.....	18
Infancy: Trust versus Mistrust.....	18
Early Childhood: Autonomy versus Shame.....	19
The Play Age: Initiative versus Guilt.....	20
School Age: Industry versus Inferiority.....	21
Possible Selves Theory.....	22
Social Cognitive Theory.....	24
College-Going Self-Efficacy.....	25
Vygotsky’s Sociocultural Theory	26

TABLE OF CONTENTS (Continued)

	<u>Page</u>
Theory of Circumscription and Compromise.....	27
Instructional Interventions.....	28
Didactic Instruction.....	29
Active Learning.....	29
Socioeconomic Status and Instructional Planning.....	30
Career Development Materials.....	32
Summary.....	33
References.....	34
Chapter Three: Elementary College Access Program and its Effect on the College-Going Self-Efficacy of Rural fifth Grade Students.....	41
Abstract.....	42
Introduction.....	43
Childhood Development of Elementary Students (K-5).....	43
College-Going Self-Efficacy.....	45
Rural Oregon Students.....	46
Research Question and Hypothesis.....	47
Independent Variable.....	47
Dependent Variable	47
Research Method and Design.....	48
Limitations.....	49
Participant Selection.....	49
Procedures.....	51
Handling and Reporting Data.....	52
Treatment Protocol.....	52
Day One.....	52
Day Two.....	53

TABLE OF CONTENTS (Continued)

	<u>Page</u>
Day Three.....	53
Day Four.....	54
Day Five.....	54
Treatment Fidelity.....	54
Measures and Data Analysis.....	56
College-Going Self-Efficacy Scale (CGSES).....	56
Daily Time Series Design.....	57
Data Analysis.....	58
Results.....	59
Discussion.....	60
Implications for Practitioners and Counselor Educators.....	60
Suggestions for Future Research.....	61
Conclusion.....	62
References.....	63
Chapter Four: Elementary College Access Program and its Effect on the College-Going Self-Efficacy of Rural Fifth Grade Students	66
General Conclusion.....	67
Recommendations for Future Research.....	67
Bibliography.....	71
Appendix A: Participant Demographic Questionnaire.....	79
Appendix B: College-Going Self-Efficacy Subscale of Attendance.....	81
Appendix C: <i>I'm Going to College</i> Curriculum	83

Chapter One: General Introduction

Overview

The purpose of this dissertation is to demonstrate scholarly work by using the manuscript document dissertation format as outlined by the Oregon State University Graduate School. In following this format, Chapter One provides explanation as to how two journal-formatted manuscripts found in Chapters Two and Three are thematically tied and build toward research conclusions pertinent to school counseling. Chapter Two is a literature review titled *Increasing College Going Self-Efficacy of Elementary Students (K-5): Utilizing What We Know About Child Development Theory, Possible Selves Theory, Self-Efficacy Theory, and Instructional Strategies*. Chapter Three presents a quantitative research study in a manuscript entitled, *Elementary College Access Program and Its Effect on the College Going Self-Efficacy of Rural Fifth Grade Students*. Both of these manuscripts focus on the construct of college-going self-efficacy. In short, the manuscripts thematically join on the application of a college access curriculum with rural fifth grade students and its effect on their college-going self-efficacy. College-going self-efficacy is the belief one has in his or her competence of being a college student; it includes the perceived ability to attend college and to succeed (persist) in college (Gibbons, 2005). Self-efficacy is a key indicator of predicting future success of students in school. Students with higher levels of self-efficacy are more inclined to engage in challenging tasks (Bandura & Schunk, 1981), set

higher goals for themselves (Schunk & Swartz, 1993), and to persist longer in the face of adversity (Lent, Brown, & Larkin, 1984). Successful performance in one domain, such as successful math performance, has been linked to an increase in student self-efficacy and future choices within the same domain, such as an increase in math self-efficacy and choice of math classes (Bandura & Schunk, 1981). Thus it is logical to propose that college-going self-efficacy is a vital predictor of college-going rates and should be an important focus of professional school counselors when working with students.

The first manuscript is a literature review that provides background, definition, and theoretical foundations of elementary school (K-5) child development, college-going self-efficacy, and college access planning. It also reviews research identifying the benefits of early (pre-adolescence) college access interventions. A college access intervention includes education about college life, the college admission process, and financial aid. In addition, some interventions have included taking students on college campus visits. The second manuscript presents a time series analysis of a didactic college access unit with active learning components and its effect on college-going self-efficacy of rural fifth grade students. Chapter Four provides a general conclusion of this dissertation study, including results of the research, limitations, and suggestions for future research.

College Access and Success

The American School Counselor Association (ASCA, 2012) developed the student standards to guide professional school counselors. One of the three domains for the work of professional school counselors is career development. Career counseling is addressed at each level of the K-12 school system through the comprehensive approach of the ASCA National Model (ASCA, 2012). College and career readiness begins with the process of creating a college-going culture in a school district and holding high academic expectations for all students. Part of the work of professional school counselors is to expand options of college and career consideration for all students, while challenging occupational stereotypes (Gottfredson, 2002). Professional school counselors address factors of financial literacy while creating a college-going culture from elementary school to high school. This bridges the knowledge gaps between socioeconomic groups, particularly for those students who come from first-generation college-going homes. Schools play a vital role in preparing students from homes without a college-going expectation to make college-going choices (National Office for School Counseling Advocacy [NOSCA], 2011).

Childhood Development of Elementary Students (K-5)

The construction of self, specifically in childhood, has been a focus for many theorists. The theory of psychosocial development (Erikson, 1963b), possible selves theory (Markus & Nurius, 1986), sociocultural development (Vygotsky, 1986), social learning theory (Bandura, 1977), and the theory of

circumscription, compromise, and self-creation (Gottfredson, 2002) are among the many theories that describe various aspects of childhood development. Erikson's (1963b, 1968) theory of psychosocial development suggests that as children move through the beginning stages of development and find resolution to the challenges associated with each stage, they gain psychological strength and become more equipped to interact with the social world.

Possible selves theory is an extension of self-concept theory and has been described as a domain of self-knowledge (Markus & Nurius, 1986). Children create their possible selves: future selves that they hope to become or fear becoming. These hopes and fears have been linked to cognition and motivation. As hope increases, cognition and motivation increase; as fear increases, cognition and motivation decrease.

Sociocultural theory proposes that language is the foundational element allowing children a framework for reaching goals (Blanck, 1990). Language allowing children to describe their future selves is essential in preparing children to make decisions for their future. The ASCA (2012) National Model suggests that one of the primary roles of a school counselor is to facilitate career development through interventions. At the elementary level, interventions often include development of new language in the area of college and career. Social learning theory suggests that behavior is learned in social environments (Bandura, 1977). Concepts such as modeling, observation, and imitation of behavior are key to this theory (Bandura, 1977). School counselors who develop

career domain interventions based upon this theory may include role playing and mentoring programs as a means of student development.

Circumscription and compromise is a developmental theory that encompasses the processes of developing both self-concept and occupational choices (Gottfredson, 1981, 2002). In the first process, circumscription, children rule out career options that do not fit within their developing self-concept. Those options are deemed unacceptable. In the second process, compromise, children sacrifice career options that seem compatible based on their self-concept to accept career options that are perceived as more appropriate. As individuals make compromises, they are typically based upon lack of knowledge and social connections. Professional school counselors are in a position of leadership and advocacy within schools (ASCA, 2012) which allows them to challenge stereo-types and to broaden the horizons for students. This can be accomplished through enrichment activities such as assemblies, school-wide activities, or field trips.

College-Going Self-Efficacy

Self-efficacy is the belief one has in his or her abilities to progress toward a goal or task (Bandura, 1997). Self-efficacy is based on the perception of self, rather than truth, and it influences motivation and interests. Self-efficacy is a predictor of behavioral choices, future aspirations (Bandura, 1997), and academic and career related choices (Lent, Brown, & Hackett, 1994). Bandura's (1986, 1997) construct of self-efficacy suggests that self-efficacy is domain

specific and predictive of behavior in that particular domain. Therefore, professional school counselors looking to increase college going rates must assess students' college-going self-efficacy as a predictor of their future choices in post-secondary options. College-going self-efficacy, specifically, is students' beliefs in their ability to attend and persist in college-related activities.

Rationale

There is little doubt that the current public school system needs improvement to increase college-going rates. ASCA and The National Office for School Counselor Advocacy (NOSCA) strongly support the ongoing work of professional school counselors in the area of college and career readiness (ASCA, 2012; NOSCA, 2011). Research underscores the value of ongoing college and career planning at the secondary level (Trusty, Niles & Carney, 2005). However, Gibbons (2005) asserted that beginning the implementation of college access interventions in middle school can be too late for many students, particularly with potential, first generation, college students. Child development theories support the early intervention, suggesting elementary school students (K-5) are at the ideal stage to increase their college-going aspirations, increase their college-going self-efficacy, and develop a positive view of self (Bandura, 1997; Blanck, 1990; Erikson, 1963a, 1968; Gottfredson, 1981, 2002; Lent, Brown, & Hackett, 1994; Markus & Nurius, 1986). Professional school counselors developing and implementing interventions designed to increase the college-going self-efficacy of elementary students need to consider

developmental theories, the family's understanding of and experience with college, student academic achievement, and students current college-going plans (Eccles, Vida, & Barber,2004).

Research Question

The research question follows:

What is the impact of the *I'm Going to College* curriculum on the college-going self-efficacy of rural fifth grade students?

This research question uniquely addresses a gap in current literature. This gap in the literature is a lack of knowledge about increasing college-going self-efficacy of rural fifth grade students, specifically as it relates to instructional interventions.

Hypothesis

The hypothesis for research question number one is:

H_0 - The *I'm Going to College* curriculum has no impact on the college-going self-efficacy of rural fifth grade students as evaluated by the College-Going Self-Efficacy Scale (CGSE).

H_1 - The *I'm Going to College* curriculum increases the college-going self-efficacy of rural fifth grade students as evaluated by the College-Going Self-Efficacy Scale (CGSES).

Empirical research on the effects of early interventions on the college-going self-efficacy of rural fifth grade students has not been previously conducted or proposed. The second manuscript expands the current body of literature and assists in furthering the work of professional school counselors in

rural school districts. Results of this study add empirical data to the investigation of college-going self-efficacy, college access and success, and the practice of professional school counseling.

Glossary of Terms

College: formal education beyond high school (e.g. apprenticeship, trade school, community college, 4-year University, military)

College-going self-efficacy: an individual's belief in one's ability to attend and persist in college

Possible Selves: ideal selves an individual desires or fears becoming

Didactic Instruction: traditional instruction where teacher lectures while students listen.

Active Learning: a learning environment that includes engaging interaction between student and instructor, student to student, and student to self.

Chapter Two

**Increasing College-Going Self-Efficacy of Elementary Students (K-5):
Utilizing What We Know About Child Development Theory,
Possible Selves Theory, Self-Efficacy Theory, and Instructional Strategies**

Michelle L. Jensen

Oregon State University

Abstract

This article reviews literature on the relationship between elementary school (K-5) childhood development, college-going self-efficacy, college access, and educational interventions. The article also examines the connections between possible selves and college access. Findings throughout the literature recommend that professional school counselors work to address college access issues at a developmentally appropriate level in the elementary school (K-5) (ASCA, 2012; NOSCA, 2012; National Association for College Admissions Counseling, 2012; Yawkey & Aronin, 2001). "Since the elementary school has a major function in helping the child's development, it should be concerned with the vocational aspects of development." (Yawkey & Aronin, 2012, p. 44) For many students, middle school and high school are too late to begin college access interventions (Gibbons & Borders, 2010; Savitz-Romer & Bouffard, 2012). Elementary students (K-5) are developmentally primed for growth in the area of college-going self-efficacy. If a didactic teaching unit with active learning components can increase the college-going self-efficacy of fifth grade elementary students, professional school counselors could, with confidence, increase college-going rates.

Search Parameters for Review:

College-Going Self-Efficacy; College Access and Success; Elementary Student; Post-Secondary Education; Instructional Strategies; Possible Selves Theory

Introduction

The work of the National Office for School Counselor Advocacy (NOSCA) compliments the National Model for School Counseling as set forth by the American School Counseling Association (ASCA, 2012). “The College Board Advocacy and Policy Center was established to help transform education” and to promote “the value of school counselors as leaders in advancing school reform and student achievement” (NOSCA, 2012, p. 7). NOSCA places a high value on a student’s need for social capital (connections to and knowledge of the world of college) and academic rigor (high expectations and college prep courses) as a means for college readiness. ASCA ethical standards direct professional school counselors to ensure equitable access for all students to academic, career, post-secondary access, and social opportunities (ASCA, 2010). Many students lack the support and education needed to prepare for the transition to college. College-readiness counseling, a systematic approach to school counseling that includes direct instruction, is needed to support students (ASCA, 2012), particularly those from underserved rural areas (Oregon University System, 2011). Professional school counselors must be prepared to address these educational needs.

The first component of college-readiness counseling is the development of college aspirations (NOSCA, 2012). Creating a college-going culture assists students in gaining the confidence needed to aspire to a college-going future. The development of college aspirations in high school is too late for many students.

Gibbons (2005) researched prospective first-generation college-going students, their college-going beliefs, and perceived barriers to higher education. These authors discovered that by seventh grade prospective first-generation students reported more perceived barriers and lower college-going self-efficacy than their non-first generation college-going peers. It is recommended that college-going interventions begin earlier than seventh grade (Gibbons, 2005; Savitz-Romer & Bouffard, 2012).

In comprehensive school-counseling programs, student competencies are addressed in a systematically and developmentally appropriate manner. The question remains as to how school counselors can most effectively intervene to increase elementary students' (K-5) college-going self-efficacy in a systematically and developmentally appropriate manner. In this review of the literature, childhood development of elementary students (K-5), possible selves theory, college-going self-efficacy, and instructional strategies are discussed.

College and Career Readiness

The standard for the practice of professional school counselors is set forth by the American School Counseling Association (ASCA, 2004), and is known as the ASCA National Model. Within the ASCA National Model there are three domains of focus: academic, career, and personal/social development. Domains are to be addressed at all levels of education in the K-12 school system through developmental and systematic delivery. The second domain, career development, is underpinned by three distinct career standards, including

student competencies. Standard A states “students will acquire the skills to investigate the world of work in relation to knowledge of self and to make informed career decisions” (p. 5). Specific competencies in Career Standard A require students to “develop career awareness” and “develop employment readiness” (p. 5). Career Standard B suggests that “students will employ strategies to achieve future career goals with success and satisfaction” (p. 5). Student competencies for Standard B imply students will acquire career information and identify career goals. Standard C suggests that “students will understand the relationship between personal qualities, education, training and the world of work” (p.5). Student competencies associated with this standard indicate that students “acquire knowledge to achieve career goals” and that they “apply skills to achieve career goals” (p.5).

College- and Career-Readiness in Elementary School. The role of elementary school counselors includes advocacy for college- and career-ready students. Promotion of a school culture that supports early career awareness is one aspect of college- and career-readiness. A professional school counselor comprehends the attitudes, knowledge, and skills necessary to prepare students for the academic rigor and social development necessary for making post-secondary choices. Professional school counselors know that “activities relating the world of work to academic subjects has the benefit of adding meaning to school experiences and developing an interest in school” (Yawkey & Aronin, 2001, p. 45). These factors have been suggested to support student engagement,

which leads to successful transitions from elementary school to middle school, middle school to high school, high school to post-secondary education, and ultimately to the world of work (ASCA, 2004; NOSCA, 2012).

A professional school counselor intentionally works to expand students' consideration of potential occupations while challenging occupational stereotypes and preparing students for future post-secondary choices (Gottfredson & Lapan, 1997). Additionally, a professional school counselor exposes students to a broad scope of practical and realistic information about careers while accepting students' non-realistic career aspirations. This process allows students to learn about education and training associated with many careers, including their fantasies of unrealistic careers (Wahl & Blackhurst, 2000). "The school, especially in the elementary grades, is deeply interested in facilitating the development of the child. Vocational development is one aspect, often ignored, of the lifelong developmental process" (Yawkey & Aronin, 2001, p. 46). Professional school counselors, following the ASCA National Standards, capitalize on this developmental process by creating opportunities for students to further develop vocational aspirations.

College-Going Culture in Elementary School. Creating a college-going culture begins with early college awareness. This includes early, ongoing, and direct exposure to information and experiences related to post-secondary options. It has been suggested that early awareness also includes non-direct, post-secondary information, such as making connections between academic

performance, school attendance, and personal character related to being a successful learner (NOSCA, 2012).

Both direct and indirect interventions provide students with the foundation to make educated decisions when selecting college and career options for their lives (NOSCA, 2012; Eccles et al., 2004; Wahl & Blackhurst, 2000; Yawkey & Aronin, 2001). Successful learners are more inclined to view themselves as effective in school and are likely to have higher college-going self-efficacy (Anderman, Anderman & Griesinger, 1999; Eccles et al., 2004; Oyserman, Johnson & James, 2011). Students who have access to information about college and other post-secondary options from an early age and make the connections between being a successful learner and their future aspirations are likely to have increased academic engagement (NOSCA, 2012; Wahl & Blackhurst, 2000). “Early planning is key to elevating college expectations and enabling students to prepare for college academically, financially, and mentally” (NOSCA, 2012, p. 30).

According to NOSCA (2012) one of the most important reasons for creating a college-going environment is the amount of time needed for students to prepare and plan for their future. Students need support structures and intentional exposure over a long period of time to fully develop their aspirations and make informed post-secondary decisions. This begins in elementary school. NOSCA (2011) strongly recommended developing a college-going culture at lower grade levels through cross-school collaboration to “produce a culture that

starts early and is deeply embedded in schools and communities” (p. 30). Many have critiqued the relevance of career education in the elementary schools, however, “a closer examination ... will demonstrate that career development not only belongs in the elementary school but can greatly enhance its program” (Yawkey & Aronin, 2001, p. 44). Elementary students are developmentally primed to have exposure to career development and to build college aspirations early while developing a sense of future self (Anderman, Anderman & Griesinger, 1999; Wahl & Blackhurst, 2000).

Childhood Development of Elementary Students (K-5)

Preparing elementary school-aged children to make post-secondary decisions is a complex task. In order for professional school counselors to work effectively with children regarding their post-secondary and career options, it is essential to consider childhood developmental processes and how these processes may affect thoughts and choices. Childhood development has been theorized from many different perspectives including the theory of psychosocial development (Erikson, 1963a), possible selves theory (Markus & Nurius, 1986), sociocultural development (Vygotsky, 1986), social learning theory (Bandura, 1977), and the theory of circumscription and compromise (Gottfredson, 1981). Each of these theories has merit and is worthy of consideration when working with elementary school-aged children regarding their future post-secondary choices.

Erikson's Theory of Psychosocial Development. Erikson (1963b) proposed a model of life-span development that is broken into eight psychosocial stages. Each stage includes a developmental crisis or task that must be resolved. Through the process of resolution, a sense of identity develops (Erikson, 1968). Erikson suggested that as children progress through these eight stages and experience resolution to each crisis, they gain psychological strength and become more prepared to interact with the social world (Erikson, 1963b, 1968).

Erikson's eight stages are:

1. infancy: trust versus mistrust;
2. early childhood: autonomy versus shame and doubt;
3. play age: initiative versus guilt;
4. school age: industry versus inferiority;
5. adolescence: identity versus role confusion;
6. young adulthood: intimacy versus isolation;
7. adulthood: generativity versus stagnation;
8. old age: ego integrity versus despair.

For the purposes of this article, only the first four stages will be addressed.

Infancy: Trust versus Mistrust. Erikson's theory of psychosocial development begins in the first year of life. Children have very few abilities during this developmental stage, which leaves them vulnerable to their caregivers. This lack of ability and vulnerability brings about the crisis of trust versus mistrust. Resolution of this crisis is based upon the quality of care

provided by the caregiver in a children's first year of life. Based upon interactions with caregivers, a children's general outlook toward themselves and the social world develops during this first year (Erikson, 1968). The development of the essential ability to trust comes as caregivers respond consistently and promptly to the needs of children. The ability to trust is also dependent upon the quality of their relationship (Erikson, 1968). This ability to trust is carried into other relationships. According to Erikson (1968), the development of trust provides the ability for children to develop faith and then hope. Hope is a necessary component to the development of a positive view of self (Anderman, et al., 1999; Markus & Nurius, 1986; Oyserman, Johnson, & James, 2011).

Early Childhood: Autonomy versus Shame. During Erikson's (1968) second stage, Early Childhood: Autonomy versus Shame and Doubt, children ages two to three years face the crisis of becoming independent from their caregivers and developing autonomy. Autonomy, the ability for an individual to create a separate sense of self from caregivers, is developed upon a solid foundation of the psychosocial task of trust. Through the physical abilities that are gained during this time, such as walking, talking, and toilet training, children gain self-control and free-choice. Adults and caregivers are able to support identity formation in children by providing guidance and corrective behavior as children challenge physical and social boundaries. Likewise, when adults and caregivers do not provide guidance or provide overly critical corrective behavior, children are

unable to resolve this crisis of autonomy, and experience self-doubt, confusion, and lack of self-worth.

The Play Age: Initiative versus Guilt. Erikson's third stage focuses on children, ages four to five years, who are quickly acquiring skills such as insight, assertiveness, creativity, and the ability to plan ahead (Erikson, 1963b/1968). The task for this developmental stage is to gain initiative, freeing an individual's sense of purpose. Children who are successful in this stage begin to develop a conscience, gain self-control, and make work-identifications. They are able to sense what is attainable and not attainable for their lives, given their surroundings (Erikson, 1963b). Children begin to ask themselves the question, "what kind of person will I be?" (Erikson, 1968). Parental figures are the primary source of identification for children as they begin asking themselves these questions. Being exposed to many career paths is important during these early years as children begin to dream about themselves and what is possible for their life. For children to fully meet the developmental task of this stage, they must experience enough guilt to build conscience, yet have enough ambition and vision to pursue their purpose. An individual who has resolved the task of this stage has a bold conviction that, "I am what I can imagine I will be" (Erikson, 1968, p. 122).

School Age: Industry versus Inferiority. The transition from home to school is the major force of the developmental process in this stage. School-aged children, ages 6 to 11, are focused on self-discovery. Children become students, whether their classroom is traditional or non-traditional. In a customary

westernized classroom, children begin to read, write, use technology, and build social and academic skills. Students are faced with the crisis of winning approval from important adults by developing competencies in the previously stated areas. This developmental stage is marked by skill mastery, contending with feelings of inferiority when being compared to peers, and concern with peer relations and social expectations (Erikson, 1963b). Developing psychological strength in this stage includes the healthy development of self-concept and is rooted in cultural values as set forth by caregivers and communities, including those at school (Erikson, 1968).

Communities play a larger role during this stage of development, as children attach themselves to teachers and other children's parents (Erikson, 1968). School communities have the opportunity to make a great impact in children's lives through supporting the themes of previous developmental stages: being trustworthy and consistent adults, allowing for autonomy and independence within the school system, as well as encouraging initiative and curiosity. Additionally, adults in the school setting have the challenge of guiding students to find pride in doing something well (Erikson, 1968). School-aged children are faced with challenges that provide them with an opportunity to grow and develop. By overcoming these hurdles, they gain a sense of accomplishment and conquer their feelings of inferiority (Adler, 2010; Erikson 1968). As children experience some level of failure, they develop the character trait of humility (Erikson, 1968). It is the role of adults in children's lives to guide the

experiences in order that children are challenged at a high enough degree to build humility, yet not lose confidence (Erikson, 1968). Professional school counselors are in a unique position to influence children at this stage.

One of the greatest dangers in this stage of psychological development is self-restriction. For example, children at times equate their value and worth to their accomplishments, their capabilities, skin color, family background, and their socioeconomic status (Erikson, 1963). Professional school counselors take the role of advocates and leaders in the school system to challenge the systemic issues that perpetuate this danger (ASCA, 2012). The goal of a professional school counselor is to assist students directly and indirectly to facilitate students' industrious self-perceptions. During this stage, children begin to identify with career options based upon their self-perceptions, self-restrictions, and academic experiences. Erikson (1968) captured this concept well: "Being firmly convinced that he is a person on his own, the child must now find out what kind of a person he may become" (p. 115). Professional school counselors can influence students' self-perceptions, self-restrictions, and academic experiences through direct and indirect services (ASCA, 2012).

Possible Selves Theory. Possible selves theory holds great merit for professional school counselors working with elementary school children in considering post-secondary educational options. It is best described as a domain of self-knowledge and an extension of self-concept theory.

Possible selves are the ideal selves that we would very much like to become. They are also the selves that we could become and are afraid of becoming. The possible selves that are hoped for might include the successful self, the creative self, the rich self, the thin self, or the loved and admired self, whereas, the dreaded possible selves could be the alone self, the depressed self, the incompetent self, the alcoholic self, the unemployed self, or the bag lady self. (Markus & Nurius, 1986, p. 154)

Professional school counselors who work from a possible selves theoretical framework recognize the link between student cognition and motivation (Markus & Nurius, 1986). The theory of possible selves provides a framework of understanding the tremendous motivational power students are capable of accessing as they gain a perspective of their future selves. School counselors must frequently reflect upon the key components that contribute to possible selves such as sociocultural backgrounds, role models, and the symbols provided in pop-culture. Based upon these key components, students create their self-schema and live life out the possible self they have created.

Possible selves can be applied to many different constructs of an individual's self-perceived identity and the performance of individual's roles. Anderman, et al. (1999) described possible academic selves as the self-perception of being a good student or a bad student. For school counselors working with elementary students (K-5), this construct of possible academic selves, is of great importance as an indicator of future performance as a student. The school experiences and social interactions of children during their elementary school years influence the development of their possible selves and

identity (Anderman et al., 1999; Erikson, 1963/1968). This development dramatically influences motivation, behavior, and performance, (Anderman et al., 1999; Mainwaring & Hallam, 2010) and is a predictor of achievement (Anderman et al., 1999; Garcia & Pintrich, 1995). From an academic standpoint, pre-adolescent students can create “hoped-for, expected, and feared selves” in relation to school performance and academic aspirations (Cadely, Pittman, Kerpelman, & Adler-Baeder, 2011, p.268). The aim of professional school counselors is to advocate, directly and indirectly, for students to create high hopes and expectations for themselves regarding their academic vision (ASCA, 2012).

Social Cognitive Theory. The basic foundation of social cognitive theory centers on “three intricately linked social cognitive variables: self-efficacy beliefs, outcome expectations, and goals” (Brown & Lent, 2006, p. 204). Perceived self-efficacy is one’s belief about their ability to make plans and manage progress toward goals (Bandura, 1997). Self-efficacy affects people’s motivation, interest level, thoughts, and action and is based on perceptions rather than objective truth. Students’ perceived abilities positively correlate to their intrinsic interests (Bandura & Schunk, 1981), guide their behaviors and future aspirations (Bandura, 1997), and have proven to be predictive factors for academic and career related choices (Lent, Brown, & Hackett, 1994). “Self-efficacy is not a passive, static trait, but rather is seen as a dynamic set of self-beliefs that are specific to particular performance domains and that interact complexly with

other personal, behavioral, and contextual factors” (Lent et al., 1994, p. 83). This dynamic state provides school counselors with the opportunity to influence students’ academic self-efficacy, specifically through the process of post-secondary decisions via experiential learning.

Outcome expectations refer to students’ beliefs regarding the consequences or products of a particular behavior (Brown & Lent, 2006). Social cognitive theory supports the belief that individuals will make choices to engage in activities they consider to have positive outcome expectations. Personal goals center upon the intention to engage in an activity. “Success or failure in reaching personal goals, in turn, becomes important information that helps to alter (e.g., strengthen or weaken) or confirm self-efficacy beliefs and outcome expectations” (Brown & Lent, 2006, p. 205).

College-Going Self-Efficacy. Bandura’s (1986, 1997) construct of self-efficacy suggested that individuals intentionally act by choosing goals based upon personal self-efficacy. Self-efficacy is domain specific; it is precise to particular areas of human experience. Therefore, self-efficacy regarding college is known as college-going self-efficacy (Gibson, 2005).

College-going self-efficacy is determined by students’ beliefs in their ability to make it to college, also referred to as *attendance*; as well as an individual’s perceived ability to stay in college, known as *persistence* (Horn & Nunez, 2000; Warburn, Bugarin, Nunez, & Carroll, 2001). Literature about college-going self-efficacy refers to attendance and persistence as concepts at

work both before and during the college experience. College attendance includes factors leading students to college such as financial issues, issues of competencies in academics, as well as problem-solving and decision-making skills. Persistence, the ability to remain in college, includes the similar ongoing factors as college attendance with the addition of ongoing financial management, academic abilities, time management, decision-making skills, and stress management.

Students' self-efficacy beliefs, including college-going self-efficacy beliefs, are based on modeled behaviors. These individuals identify with parents, older siblings, teachers, and peers. Students then adjust their college and career aspirations to match those with whom they identify (Gibbons, 2005).

Vygotsky's Sociocultural Theory. Vygotsky was an educator for many years before he developed an interest in the psychology of learning. In light of this background Vygotsky's ideas about cognitive development are multifaceted including educational perspectives, developmental perspectives, and sociocultural perspectives (Moll, 1990). "Vygotsky regarded education not only as central to cognitive development but as the quintessential Sociocultural activity" (Moll, 1990, p. 1). Communities, neighborhoods, and schools provide children goals and frameworks to achieve those goals (Blanck, 1990). Language is a foundational element to sociocultural theory (Vygotsky, 1986). "Language bears concepts that belong to experience and to the knowledge of humankind" (Blanck, 1990, p. 45). Vygotsky's (1978) theory supports the idea of preparing school-aged children to make post-secondary decisions by providing them

language for their academic futures. Likewise, creating social settings conducive to goal development and frameworks to complete the goals remains key.

Although Vygotsky did not develop the construct of *scaffolding*, his theory prepared the groundwork for future thinking on this construct. Wood, Bruner, and Ross (1976) introduced the concept of scaffolding, or instructional scaffolding. Scaffolding requires established instructional supports, which allow students to gain deeper knowledge in a particular area. Ideas for instructional supports include, but are not limited to: (a) verbal coaching; (b) templates or guides; (c) sentence frames; (d) captivating tasks; (e) modeling and show and tell. These strategies support learning by tapping into prior knowledge, providing time to verbally process and by introducing vocabulary before a lesson (Wood et al., 1976). Instructional scaffolding is vitally important, especially with students who have little background knowledge or language associated with a new skill or concept, such as post-secondary planning (Wood et al., 1976). Student-centered teaching with scaffolding instructional supports has been shown to be effective in improving academic knowledge and students' levels of self-efficacy (Schukajlow et al., 2012).

Theory of Circumscription and Compromise. Circumscription and compromise is a theory that addresses the development of a child's self-concept and career choice (Gottfredson, 1981). Gottfredson assumed children create a cognitive map of occupations, based upon a few dimensions: sex-type, prestige level, and field of work - and that this map is built according to cultural

stereotypes (Gottfredson, 2002). Circumscription is the process of ruling out career options based upon an individual's self-concept, stereotypes, and cognitive map (Gottfredson, 1981, 2002). According to Gottfredson (2002), circumscription develops in stages:

1. Orientation to size and power (ages 3-5): children discover that adults have occupation;
2. Orientation to sex roles (ages 6-8): children begin to categorize occupations by gender role;
3. Orientation to social values (ages 9-13): children begin to categorize occupations based upon socioeconomic status, and determine what levels of status and effort they are able to tolerate;
4. Orientation to internal, unique self (ages 14+): young people in this stage consider personal abilities as well as their personal value systems as they make career decisions (Cochran et al., 2011; Gottfredson, 2002)

ASCA's (2012) developmental and systematic approach to the career development domain is congruent with Gottfredson's theory.

Instructional Interventions

School counselors in 38 states (ACA, 2012) are not required to have training necessary to prepare and deliver instructional units such as those designed to increase elementary students' college-going self-efficacy. School counselors in the remaining 12 states have required education courses or teaching experiences for school counselor licensure. In order to design and

deliver units that increase elementary students' college-going self-efficacy professional school counselors would be best prepared to know how learning theories, instructional interventions, and socioeconomic factors affect students. Licensure for Oregon professional school counselors includes graduate level education courses, including a teaching practicum work sample (Teachers Standards and Practices Commission, 2013).

Didactic Instruction. Traditional education is didactic in nature. Current research has shown passive educational environments, in which students formally listen to an instructor teaching while taking notes, to be less effective in promoting student learning (Prince, 2004). Experiential or active styles of educational interventions have proven to be more effective in student engagement and retention of knowledge. Active learning, similar to experiential learning, "involves using multiple senses (e.g., hearing, seeing, and feeling), interacting with other people and materials, and responding to or solving a problem" (Sirinterlikci, Zane, & Sirinterlikci, 2009, p. 14). Priest and Gass (1997) define experiential education as learning by doing with reflection. This approach to education has generally been known to include problem solving, group cooperation, and reflection on an experience.

Active Learning. Active learning is comprised of at least one of the following components: dialogue with self, dialogue with others, and observation or doing (Sirinterlikci et al., 2009). Dialogue with self includes students' reflectively considering a particular topic, such as college or post-secondary

choices for example. A professional school counselor could use student journals or portfolios as the instrument to guide students through the process of reflective consideration on a topic. Dialogue with others is engaged interaction, more than merely listening to a lecture. Included in dialogue with others would be instructional interventions such as: pair-share, small group discussion, or collaborating with other students on a topic. Observing is a form of active learning when a student “watches or listens to another person doing something related to the subject being studied” (p. 15). This could include observation of another peer, a teacher, “or observing natural, social, or cultural phenomena” (p. 15). Finally, *doing* is any educational activity in which the student is actually doing something in relation to the topic of focus.

Active learning and experiential education are not intended to replace the structure of a traditional classroom and teaching methods (Sirinterlikci et al., 2009). Active learning and experiential education are the most effective when used to strengthen knowledge in a given area through active engagement and use of previously attained knowledge (Kirschner, Sweller, & Clark, 2006).

Socioeconomic Status and Instructional Planning. Professional school counselors also need to consider the research on the relationship between socioeconomic status and college-going self-efficacy (Gibbons & Shoffner, 2004) and then the relationship between socioeconomic status and instructional strategies found most effective with students from homes with lower socioeconomic status (Schultz, 2007).

Wahl and Blackhurst's (2000) literature review cited many factors influencing student career and educational aspirations. A primary factor is socioeconomic status. Students coming from lower socioeconomic status, for example students who qualify for free and reduced lunches, often do not have exposure to resources nor the skills to gain resources as compared to their peers of higher socioeconomic status.

NOSCA (2012) addressed this concern in the National Office for School Counselor Advocacy's (NOSCA) eight components of college- and career-readiness counseling. The sixth component of NOSCA's recommendation for college-and career-readiness counseling is college affordability planning. Professional elementary school counselors provide parents and students with financial information about post-secondary options. This early intervention helps families increase financial literacy and plan for the expenses of a college education (NOSCA, 2012). For students whose families do not have the tradition of a college-going culture or an expectation to attend college, "high school may be too late to begin the process of building a college-going culture," (NOSCA, 2011, p. 30). School systems have the vital role of preparing students for this path (NOSCA, 2011).

Preparing elementary students from low socioeconomic groups to make post-secondary decisions is a complex task. "Low income children perform better in school when school-focused future identities are a salient aspect of their possible self for the coming year and these school-focused future identities are

linked to behavioral strategies” (Oyserman, Johnson, & James, 2011, p. 474).

Behavioral strategies, such as completing and returning homework each day, are a key component when school counselors and professional educators are working with low-income and minority children. Oyserman et al. (2011) noted that disadvantaged students “do see school success as an important *destination*, but that for these children, the *path* to school success may not be clear” (p. 475). The connection between path thinking (daily homework and good grades) and destination thinking (college admission and financial aid) for pre-adolescent students of low socioeconomic status effects the way they spend their time and energy (Destin & Oyserman, 2009; 2010). *Path thinking* is addressed within the ASCA National Model for professional school counselors. School counselors collaborate on behalf of students, particularly for those students who have historically been marginalized. Collaboration educates students, parents, and school staff in strategies that support *path* thinking in addition to *destination* thinking (ASCA, 2012; Oyserman et al., 2011).

Career Development Materials

A review of career development materials revealed that there are several curricula available for use in elementary school settings including but not limited to the Missouri Center for Career Education guidance and counseling units, the Indiana Pathways to College Network, and the Oregon Career Bug curriculum. In addition, there are commercially available products such as *Paws in Jobland*. These products and curriculum plans, though appropriate for working with

elementary students in the career domain, do not directly address college-going self-efficacy and appear to be lacking research to support the efficacy of the materials.

Summary

Developing college-going self-efficacy interventions at the elementary level is important. Developmentally, elementary students are prepared for self-discovery and are creating visions of their future selves. Elementary school is an ideal time to challenge self-restrictive thinking through a college-going self-efficacy intervention, which could increase academic motivation in students.

Wahl and Blackhurst (2000) recommended further research in the area of children's perceptions of themselves as college bound. Recommended research would include demographic variables such as gender, race, family income, parental education, parental occupational levels, academic achievement, parental expectations, and teacher/counselor perceptions of the child's "college potential." Gibbons (2005) specified the need for additional investigation in the area of early college-going self-efficacy, specifically before seventh grade.

In this review of the literature, there are implications for professional school counselor practice, school counselor training, and a need for further research to assess whether an educational intervention that includes both didactic and active learning components could increase the college-going self-efficacy of fifth grade students.

References

- Adler, A. (2010). *Understanding human nature*. New York: Premier Books.
- American School Counselor Association (2004). *ASCA national standards for students*. Alexandria, VA: Author. Retrieved from http://static.pdesas.org/content/documents/ASCA_National_Standards_for_Students.pdf
- American School Counselor Association (2010). *Ethical standards for school counselors*. Retrieved from <http://www.schoolcounselor.org/files/EthicalStandards2010.pdf>
- American School Counselor Association (2012). *The ASCA national model: A framework for school counseling programs*, 3rd Ed. Alexandria, VA: Author.
- Anderman, E.M., Anderman, L. H., & Griesinger T. (1999). The relation of present and possible academic selves during early adolescence to grade point average and achievement goals. *The Elementary School Journal*, 100(1), 3-17. doi: 10.1086/461940 Retrieved from <http://www.jstor.org/action/showPublication?journalCode=elemschoj&>
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A., (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41, 586-598. doi: 10.1037/0022-3514.41.3.586 Retrieved from <http://www.apa.org/pubs/journals/psp/index.aspx>
- Blanck, G., (1990). Vygotsky: The man and his cause. In L.C Moll, *Vygotsky and education* (pp. 1-27). Cambridge: Cambridge University Press. ISBN: 0-521-38579-2
- Brown, S. D. & Lent, R. W, (2004). *Career development and counseling: Putting theory and research to work*. John Wiley & Sons.

- Cadely, H., Pittman, J. F., Kerpelman, J. L., & Adler-Baeder, F. (2011). The role of identity styles and academic possible selves on academic outcomes for high school students. *Identity, 11*(4), 267-288. doi:10.1080/15283488.2011.613580
- Cochran, D. B., Wang, E. W., Stevenson, S. J., Johnson, L. E., Crews, C. (2011). Adolescent occupational aspirations: Test of Gottfredson's theory of circumscription and compromise. *The Career Development Quarterly, 59*, 412-427. doi: 10.1002/j.2161-0045.2011.tb00968.x
- Destin, M., & Oyserman, D. (2009). From assets to school outcomes: How finances shape children's perceived possibilities and intentions. *Psychological Science, 20*(4), 414-418. doi: 10.1111/j.1467-9280.2009.02309.x
Retrieved from
http://www.psychologicalscience.org/index.php/publications/journals/psychological_science
- Destin, M., & Oyserman, D. (2010). Incentivizing education: Seeing schoolwork as an investment, not a chore. *Journal of Experimental Social Psychology, 46*, 846-849. doi: 10.1016/j.jesp.2010.04.004 Retrieved from
<http://www.journals.elsevier.com/journal-of-experimental-social-psychology/>
- Eccles, J. S., Vida, M. N., & Barber, B. (2004). The relation of early adolescents' college plans and both academic ability and task-value beliefs to subsequent college enrollment. *Journal of Early Adolescence, 24*(1), 63-77. doi:10.1177/0272431603260919
- Erikson, E. H. (1963a). *Childhood and society*. New York: W. W. Norton.
- Erikson, E. H. (1963b). *Youth: Change and challenge*. New York: W. W. Norton.
- Erikson, E. H. (1968). *Identity, youth, and crisis*. New York: W. W. Norton.
- Garcia, T. & Pintrich, P. R. (1995). *The role of possible selves in adolescents' perceived competence and self-regulation*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Gibbons, M. M. (2005). *College-going beliefs of prospective first-generation*

college students: Perceived barriers, social supports, self-efficacy, and outcome expectations (Doctoral Dissertation). Retrieved from <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1049.pdf>

- Gibbons, M. M. & Borders, L. D. (2010). A measure of college-going self-efficacy for middle school students. *Professional School Counseling*, 13(4), 234-238. doi: 10.5330/PSC.n.2010-13.234
- Gibbons, M. M. & Shoffner, M. F. (2004). Prospective first-generation college students: Meeting their needs through social cognitive theory. *Professional School Counseling*, 8 (1), 91-97. Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=235>
- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28(6), 545-579. doi: 10.1037/0022-0167.28.6.545
- Gottfredson, L. S. (2002). Gottfredson's theory of circumscription, compromise, and self-creation. In D. Brown (Ed.), 2002, *Career choice and development* (pp. 85-148). San Fransisco: Jossey-Bass.
- Gottfredson, L. S., & Lapan, R. T. (1997). Assessing gender-based circumscription of occupational aspirations. *Journal of Career Assessment*, 5(4), 419-441.
- Horn, L., & Nunez, A. (2000). Mapping the road to college: First-generation students' math track, planning strategies, and context of support (NCES Report 2000-153). Washington D.C: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000153>
- Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 41(2), 75-86. doi: 10.1207/s15326985ep4102_1
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79-122. doi: 10.1006/jvbe.1994.1027
Retrieved from <http://www.journals.elsevier.com/journal-of-vocational-behavior/>

- Lent, R. W., Brown, S. D., & Larkin, K. C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. *Journal of Counseling Psychology, 31*, 356-362. doi: 10.1037/0022-0167.31.3.356 Retrieved from <http://www.apa.org/pubs/journals/cou/index.aspx>
- Mainwaring D., & Hallam S. (2010). 'Possible selves' of young people in a mainstream secondary school and a pupil referral unit: A comparison. *Emotional and Behavioural Difficulties, 15*(2), 153-169. doi: 10.1080/13632752.210.480889
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954-969. doi: 10.1037/0003-066X.41.9.954 Retrieved from <http://www.apa.org/pubs/journals/amp/index.aspx>
- Moll, L. C., (1990). Introduction. In L.C Moll, *Vygotsky and Education* (pp. 1-27). Cambridge: Cambridge University Press.
- National Association for College Admissions Counseling (2012). Professional college knowledge:Re-envisioning how we prepare our college readiness workforce. Arlington, VA: Savitz-Romer, M. Retrieved from <http://www.nacacnet.org/research/research-data/Documents/ProfCollegeKnowledge.pdf>
- National Office for School Counselor Advocacy (NOSCA). (2011). *School counselors literature and landscape review* [Data file]. Retrieved from http://media.collegeboard.com/digitalServices/pdf/nosca/11b_4045_Lit_Review_BOOKLET_WEB_111104.pdf
- National Office for School Counselor Advocacy (NOSCA). (2012). *Elementary school counselor's guide: NOSCA's eight components of college and career readiness counseling* [Data file]. Retrieved from http://media.collegeboard.com/digitalServices/pdf/advocacy/nosca/11b-4383_ES_Counselor_Guide_WEB_120213.pdf
- Oregon University System. (2011). 2011 Legislative brief higher education: Rural oregon higher education issues and outreach. <http://www.ous.edu/sites/default/files/dept/govrel/files/2011BRuralEd.pdf>

- Oyserman, D., Johnson, E., & James, L. (2011). Seeing the destination but not the path: Effects of socioeconomic disadvantage on school-focused possible self content and linked behavioral strategies. *Self and Identity*, 10, 474-492. doi: 10.1080/15298868.2010.487651
- Priest, S., & Gass, M. (1997). *Effective leadership in adventure programming*. Champaign, IL: Human Kinetics.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231. Retrieved October 15, 2012 from http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/Prince_AL.pdf.
- Savitz-Romer, M. & Bouffard, S. M., (2012). Ready, willing, and able. Cambridge: Harvard Education Press.
- Schukajlow, S., Leiss, D., Pekrun, R., Blum, W., Müller, M., & Messner, R. (2012). Teaching methods for modelling problems and students' task-specific enjoyment, value, interest and self-efficacy expectations. *Educational Studies In Mathematics*, 79(2), 215-237. doi:10.1007/s10649-011-9341-2
- Schultz, B. D., (2007). "Not satisfied with stupid band-aids": A portrait of a justice oriented, democratic curriculum serving a disadvantaged neighborhood. *Equity & Excellence in Education*. 40. 166-176. doi: 10.1080/10665680701218459
- Schunk, D. H., & Swartz, C. W. (1993). Goals and progress feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology*, 18, 337-354. doi: 10.1006/ceps.1993.1024 Retrieved from <http://www.journals.elsevier.com/contemporary-educational-psychology/>
- Sirinterlikci, A., Zane, L., & Sirinterlikci, A. L. (2009). Active learning through toy design and development. *Journal of Technology Studies*, 35(2), 14-22. Retrieved from <http://scholar.lib.vt.edu/ejournals/JOTS/>
- Teacher Standards and Practices Commission (2013). Retrieved from <http://tspc.oregon.gov/licensure/licensure.asp>
- Trusty, J., Niles, S., Carney, J. (2005). Education-career planning and middle school counselors. *Professional School Counseling*. 9(2). 136-143. Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=235>

- Vygotsky, L., (1986). *Thought and language*. Cambridge, MA: The Massachusetts Institute of Technology.
- Vygotsky, L. S., (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Warburton, E. C., Bugarin, R., Nunez, A., & Carroll, C. D. (2001). Bridging the gap: Academic preparation and postsecondary success of first- generation students (NCES Report 2001-153). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
<http://nces.ed.gov/pubs2001/2001153.pdf>
- Wahl, K. H., & Blackhurst, A. (2000). Factors affecting the occupational and educational aspirations of children and adolescents. *Professional School Counseling, 3* (5), 367-374. Retrieved from
<http://www.schoolcounselor.org/content.asp?contentid=235>
- Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal Of Child Psychology & Psychiatry & Allied Disciplines, 17*(2), 89-100. doi:10.1111/1469-7610.ep11903728
- Yawkey, T. D. & Aronin, E. L. (2001). Fostering relevance with career education in the elementary school. *Education, 95*(1). 44-50.

Chapter Three

**Elementary College Access Program and Its Effect on the
College-Going Self-Efficacy of Rural Fifth Grade Students**

Michelle L. Jensen

Oregon State University

Abstract

Professional school counselors are faced with the challenging task of preparing students to be college ready, particularly in rural areas. Rural students may face barriers in attending college, particularly socioeconomic barriers. Many students have already determined their educational plans at an early age. This article addresses best practices for professional school counselors including childhood development, rural barriers, and effective instructional strategies when working with rural youth. This study provides support for the use of the *I'm Going to College* curriculum as a means to increase the college-going self-efficacy of rural fifth graders.

Search Parameters for Review:

College-Going Self-Efficacy; College Access and Success; Elementary Students;

Post-Secondary Education; Instructional Strategies; Rural Students; Time-Series

Design

Introduction

College-going rates for students in Oregon's rural areas are lower than for their urban counterparts (Oregon University System [OUS], 2011). Lower college going rates contribute to the perpetuation of financial barriers which further restrict rural students from higher education, creating a cycle of lower socioeconomics. Many who find a way to go will be first generation college students. According to Gibbons (2005), first generation college students crystalize ideas about future academic choices by the time they are in the seventh grade. Elementary professional school counselors in rural settings, therefore, need to understand best practices for developing and implementing interventions that can positively impact students' college-going self-efficacy. Best practice requires professional school counselors take into consideration developmental stage and rural living conditions. The purpose of this article is to provide a brief overview of each of these topics and to examine the results a didactic college access unit with active learning components had on college-going self-efficacy among rural fifth grade students.

Childhood Development of Elementary Students (K-5)

As professional school counselors work toward implementing the American School Counselor's Association (ASCA) Student Standards (ASCA, 2012) for career development, childhood development must be considered. Erikson (1963a, 1968) proposed that there is a connection between early childhood developmental needs being met or ignored and the ability to gain

psychological strength during school years. Virtues developed at key stages assist children during school years. For example, as young children gain the ability to trust, they are able to develop hope. Hope is a component of creating a positive view of self (Erikson, 1968). Further, as children gain the ability to trust in themselves and others, autonomy develops. Autonomy prepares children developmentally for the separation from parental figures while at school.

During the elementary years, part of the developmental process includes making work identifications (Erikson, 1968). Parents and primary caregivers are key sources of information and serve as role models related to work and career (Erikson, 1968). Information and modeling in rural communities can be limited. This is unfortunate because elementary school children are in a developmental stage that includes self-discovery and would benefit from exposure to many career ideas (Erikson, 1963b, 1968).

As students work through the developmental task of self-discovery and are exposed to new future possibilities, they construct possible selves. The theory of possible selves, a self-knowledge construct, explains the connection between student cognition and motivation:

Possible selves are the ideal selves that we would very much like to become. They are also the selves that we could become and are afraid of becoming. The possible selves that are hoped for might include the successful self, the creative self, the rich self, the thin self, or the loved and admired self, whereas, the dreaded possible selves could be the alone self, the depressed self, the incompetent self, the alcoholic self, the unemployed self, or the bag lady self. (Markus & Nurius, 1986, p. 154)

Professional school counselors can influence students' possible selves through school-wide events, classroom lessons, small group counseling, and individual counseling. Elementary school students with positive perspectives of future selves have proven to have an increase in academic motivation (Anderman, Anderman, & Griesinger, 1999; Garcia & Pintrich, 1995; Markus & Nurius, 1986).

College-Going Self-Efficacy

Self-efficacy is a perceived belief about one's ability to successfully accomplish a task (Bandura, 1997) and impacts intrinsic interests, motivation, thoughts, and behavior (Bandura & Schunk, 1981; Bandura, 1997). Self-efficacy is domain specific; therefore, self-efficacy related to planning and completing college is known as college-going self-efficacy (CGSE). College-going self-efficacy has been defined as perceived beliefs in one's ability to attend and persist with college-related activities (Horn & Nunez, 2000; Warburton, Bugarin, Nunez, & Carroll, 2001). Students gain GCSE based upon modeled behaviors from parents, siblings, teachers, and peers.

Self-efficacy is based upon perception rather than truth. For example, students often adjust their college and career aspirations based upon the modeled behavior and expectations of those with whom they identify (Gibbons, 2005), rather than based upon their individual interests and potential. Savitz-Romer and Bouffard (2012) provided ideas to support practitioners as they work with students in college access and success, including "transferring self-efficacy from one domain to another" (p. 109). Their work suggests that school

counselors can draw connections between hard work in one area of students' lives (athletics, farm work, 4-H) and their hard work in another area of life (future schooling or career pursuits).

Rural Oregon Students

College-going rates for rural versus urban students in Oregon are significantly lower (Oregon University System [OUS], 2011). These lower college-going rates contribute to rural citizens' economic disadvantage.

The lower rate of educational attainment can largely be attributed to the many barriers rural Oregonians face, such as limited geographical access to Oregon's public universities, affordability challenges, cultural or social barriers, and insufficient assistance to pursue higher education, including financial aid and academic preparation support. (Oregon University System, 2011, p. 1)

Oregon University System (2011) identified three key barriers facing many rural students: income, distance, and familiarity. Financial barriers contribute to lower college-going rates in many ways, such as lack of resources to afford application fees, tuition, transportation, and room and board. Distance is an obstacle for many students who live in rural communities, as most colleges and universities are hours away. Distance also contributes to the lack of exposure to higher education and college life or environment. Familiarity and distance go hand-in-hand. College-life and resources on a college campus are often foreign and intimidating to rural students, as they lack exposure to higher education and access to college campuses. These barriers not only create

difficulties for students to make it to college, they also make it difficult to remain in college.

This study was designed based upon findings related to childhood development, college-going self-efficacy, the value of quality instruction, and barriers that rural students face related to attending and persisting in college.

Research Question

The research question is as follows:

What is the impact of the *I'm Going to College* curriculum on the college-going self-efficacy of rural fifth grade students as measured by the College-Going Self-Efficacy Scale?

Hypothesis

The hypothesis for the research question is:

H_0 - The *I'm Going to College* curriculum has no impact on the self-efficacy of rural fifth grade students as measured by the College-Going Self- Efficacy Scale (CGSE).

H_1 - The *I'm Going to College* curriculum increases the self-efficacy of rural fifth grade students as measured by the College-Going Self-Efficacy Scale (CGSES).

Independent Variable

The independent variable is defined as a college access instructional unit.

Dependent Variable

The dependent variable is defined as the participant's college-going

self-efficacy as measured by a subscale of the College-Going Self-Efficacy Scale (CGSES).

Research Method and Design

This research was designed to evaluate the impact of a five-lesson educational college access unit *I'm Going to College* on the college-going self-efficacy of rural fifth grade students using a quasi-experimental, time-series design. Time-series designs provide experimental control, allowing for early stages of documentation that an intervention merits a closer look (Borckardt et al., 2008). "Daily measures allow the researcher to examine the effectiveness of the intervention and track the process across time" (Smith, Handler, & Nash, 2010, p. 594). Daily measures permit continuous data tracking throughout treatment, providing an opportunity to evaluate change in the dependent variable after each lesson in the educational unit. This methodology allows researchers and practitioners to engage in meaningful dialogue regarding the connection between research and practice (Borckardt et al., 2008).

This study utilized a commercially available college-access program *I'm Going to College* that has been incorporated into the school district curriculum at the fifth-grade level for the past 2 years. The use of an adopted district curriculum increased student participation and reduced mortality threat. The use of a time-series design with *I'm Going to College* curriculum could potentially "bridge the gap between practice and the laboratory" (Borckardt et al., 2008, p. 81) by providing evidence as to whether or not change occurs in the

college-going self-efficacy of students during the intervention. This study could support future research that further explores college-going self-efficacy of elementary students as well as guide the work of professional school counselors working with upper elementary grades to meet ASCA Student Standards in career development.

Limitations. When using time-series design, researchers are unable to suggest a causal relationship between treatment and outcome variable. In light of this, it is not possible to conclude that the intervention caused the change; however, that there is a correlation between the intervention and the change. Threats to internal validity, such as a confounding, unevaluated third variable or maturity from repeated testing, make it difficult to generalize results. However, results from time-series studies may support the value of continued research on the topic using more complex designs. An additional limitation in this study is the possibility that the participant sample, those with parental consent to participate, may be skewed by the parents who did not allow consent for their child to participate in this study.

Participant Selection. Participants in this study were sampled from ($n = 34$) sixty fifth grade students enrolled in one public elementary school located in rural Oregon. They were chosen as a convenience sample. Among the participants, 55.88% were White/Non-Hispanic ($n = 19$), 2.94% were Black/African-American ($n = 1$), 17.65% were Hispanic/Latino ($n = 6$), 11.76% were American Indian/Alaska Native ($n = 4$), 5.88% were two or more races ($n =$

2), and 5.88% were Other/Unknown ($n = 2$) according to their self-report. Of the participants, 50% were male ($n = 17$), 50% were female ($n = 17$), and 53% were on free and reduced lunch ($n = 18$).

Student participants completed a demographic questionnaire before the intervention indicating 23.53% were 10 years of age ($n = 8$) and 76.47% were 11 years of age ($n = 26$). Students reported their highest educational goals to be 5.88% to enter high school ($n = 2$), 8.82% to graduate high school ($n = 3$), 5.88% to enter community college ($n = 2$), 14.71% to graduate from community college ($n = 5$), 2.94% to enter a 4-year university ($n = 1$), 20.59% to graduate from a 4-year university ($n = 7$), 17.65% to enter graduate school ($n = 6$), 11.76% to graduate from graduate school ($n = 4$), and 11.76% to enter the military ($n = 4$). Students reported that 17.65% would be the first to go to college ($n = 6$); 82.35% of students said they will have family support to go to college ($n = 28$), and 17.65% will not have family support to go to college ($n = 6$). When asked how likely they will be to go to college after high school, 5.88% reported *not at all likely* ($n = 2$), 8.82% reported *somewhat likely* ($n = 3$), 23.53% reported *likely* ($n = 8$), 32.35% reported *very likely* ($n = 11$), 29.41% reported *positive* ($n = 10$). When asked how likely they would be to graduate from college within 5 years after high school, 5.88% responded *not at all likely* ($n = 2$), 17.65% responded *somewhat likely* ($n = 6$), 44.12% responded *likely* ($n = 15$), 20.59% responded *very likely* ($n = 7$), and 11.76% responded *positive* ($n = 4$). As of the 2010 census, the racial demographic makeup of the city of Hermiston was 74.2% White, 0.8% African

American, 1.3% Native American, 1.5% Asian, 0.2% Pacific Islander, 19.0% from other races, and 3.0% from two or more races. Of these, 34.9% identify as Hispanic or Latino.

The participant demographic survey included open ended questions regarding asking the three most important things students need to do in order to get to college, to graduate from college and what happens at college. The responses to these questions included themes of hard work, responsibility, studying, and being a good listener.

Procedures. Upon approval from Oregon State University's Institutional Review Board, a convenience sample was chosen from a rural public school in a Northeast Oregon county. Parents were informed of the intent of the study, its voluntary nature, and their right to decline. They were then provided opportunity to give written consent for their child to participate. The parents gained assent from their children. Following receipt of consent and assent, all participants were told that they were going to participate in a program that teaches students about college. A licensed professional school counselor facilitated the *I'm Going to College* curriculum. As approved by Oregon State University's Internal Review Board, all fifth grade students participated in the *I'm Going to College* curriculum, however only the data from students' who had parental consent are included in this study.

Handling and Reporting Data

Consent documents and assessment instruments were coded to safeguard privacy and confidentiality. Each participant was assigned a number. The demographic questionnaire, consent, and assent were all collected in written format and coded to assure consistency. Data from the College-Going Self-Efficacy Scale (CGES) were collected digitally using the iPod Touch—a regular part of the students' educational experiences. All electronically-received data were stored securely under password-encrypted technology. All written documents were stored in a locked file cabinet in a private office. Outcomes of this research are reported without personal identifying information.

Treatment Protocol

Each participant of this study was given an *I'm Going to College* activity book which was reproduced with permission from Northwest Education Loan Association. The eight chapters in the *I'm Going to College* activity book were covered over 5 days.

Day One. College was defined as formal education beyond high school and examples given included trade schools, community college, 4- year universities, and the military. References were made to the wide scope of options students had when using the general term college. The first lesson included three vignettes about students from various walks of life including their experiences of being inspired to go to college, overcoming barriers, and details about how they paid for college. In the first chapter of *I'm Going to College*, the focus was on

teaching vocabulary such as: college, bachelor's degree, major, community college, university, private college, and vocational school. The questions: *What is college? What types of colleges are there to choose from? and How can I find a college that's right for me?* were all addressed. Study participants learned what type of information to look for when considering a college including size of college, type of institution, geographical location, financial considerations, and academic areas. The objective of chapter two was application of knowledge through online research of a college website. Students explore a college webpage to locate many of the concepts from chapter one (e.g. size of college, type of institution, geographical location, financial considerations, and academic areas).

Day Two. The objective of day two was to introduce the concept of person-environment fit as it relates to college, and to increase students' level of understanding of themselves and their personal likes and dislikes in school and learning environments. The active learning component required higher levels of learning as students were invited to create a brochure of their perfect college, using the knowledge and vocabulary learned the previous couple of days.

Day Three. The focus of day three was the cost and benefits of a college education. Chapter five of the *I'm Going to College* workbook gives examples of the benefits of a college education including national average income data from the U.S. Department of Labor based upon levels of education. The primary learning objective for this session is financial literacy associated with college. Specific vocabulary taught included tuition and fees, books and supplies, room

and board, financial aid, savings accounts, grants, scholarships, work-study, and student loans. With guidance, students were asked to apply knowledge by calculating the tuition cost of a bachelor's degree and making a list of other expenses to be considered.

Day Four. The objective of day four was to further the development of crystalizing the knowledge gained by becoming an "advisor," to an imaginary college student from a vignette who needs advice in pursuing college and how to pay for college. Day four also included career exploration. Students responded in writing to open-ended questions regarding future careers. They were also encouraged to search the internet for a college that offered their major of interest.

Day Five. Students identified a college they would like to attend, including a major area they were interested in learning more about. Each student wrote a letter to the college of their choice requesting information. A college-corner bulletin board of the United States highlighting colleges was created with plans to post responses from the colleges as they were received.

Treatment Fidelity

Treatment fidelity is a methodological strategy used to assess, monitor, and enhance reliability and validity of behavioral interventions. This strategy is used to ensure uniformity of treatment delivery to research participants (Alvarez-Jiminez et al., 2008). Fidelity can be broken down into five key areas: study design, provider training, treatment delivery, treatment receipt, and

treatment enactment (Borrelli et al., 2005). Ensuring a strong study design includes the establishment of procedures and protocols that are consistent throughout the treatment. Examples in this study included ensuring that delivery of treatment fit within the school schedule and following checklists to assure implementation was consistent between classroom groups (Smith, Daunic, & Taylor, 2007).

Training of the trainer is important when the treatment is being delivered through a facilitator. Fidelity of training provides assurance that the intervention will be delivered with effectiveness. The professional school counselor and researcher for this study was a doctoral candidate with formal training in quantitative research, a graduate-level teaching practicum, and a master's degree in counseling psychology that prepared the researcher to provide quality instruction within a career-counseling framework.

Fidelity of treatment delivery is critical for internal validity. Only one treatment facilitator was used for this study, ensuring the same environment and the same treatment delivery for two different classes of participants. An additional measure of ensuring the fidelity of treatment was implemented. The professional school counselor recorded two of the five sessions with each class and then asked a professional colleague to review the recordings using a checklist to ensure that the two classes received the same treatment on those days. Treatment receipt is the fourth component recommended by Borrelli et al. (2005). This involves ensuring that study participants comprehend the

information being provided during the intervention. In order to assess this, participants were monitored through active learning strategies such as reflective writing.

Measures and Data Analysis

College-Going Self-Efficacy Scale (CGSES). The College-Going Self-Efficacy Scale (CGSES) was created to measure the college-going self-efficacy of middle school students (Gibbons & Borders, 2010). The items in this instrument measure two indicators of college-going self-efficacy: college attendance and college persistence. The instrument was developed with consideration for the developmental stage of middle school students (grades 6-8) and their inability to relate to college attendance and persistence. Therefore, the items are written with attention given to vocabulary and topics that are both appropriate to the constructs being measured and applicable to the life of preteen students. Understanding that participants of this study were fifth graders, consultation in the use of the instrument was essential. Following consultation with two reading specialists as well as the creator of the CGSES, it was determined that the CGSES was appropriate to use with fifth grade students as well.

The CGSES is a valid and reliable instrument (Gibbons & Borders, 2010) with 31 items. Fifteen items relate to college attendance and 16 items to college persistence. For the purposes of this time-series design, only the means of six items and the overall scores from pre- and post-assessments were assessed.

Upon the recommendation of C. Dykeman (personal communication, November, 26, 2012) and based upon factor analysis (Gibbons & Borders, 2010), the six items with the highest reliability were used as the instrument to measure baseline and intervention data. The items and their factor analysis are as follows:

1. I can find a way to pay for college. (.78)
2. I can get accepted to college. (.70)
3. I can have family support for going to college. (.66)
4. I can get a scholarship or grant for college. (.64)
5. I can go to college after high school. (.64)
6. I could pay for each year of college. (.64)

Students were asked to respond to the prompt “How sure are you about being able to do the following” in a Likert-Scale format (0 = *not at all sure*, 1 = *somewhat sure*, 2 = *sure*, 3 = *quite sure*). The items relating to college attendance included topics of a financial nature (*I can find a way to pay for college*); issues of being academically able (*I can get accepted to college*); and issues related to family (*I can have family support for going to college*). The ranges of scores possible were 0-18. Lower scores indicate a lower perceived self-efficacy and higher scores indicate higher perceived self-efficacy in the area of attending college.

Daily Time Series Design. Time series design (Borckardt et al., 2008) measured the hypothesis that a college-access educational intervention *I’m Going to College* would increase the college-going self-efficacy of rural fifth grade students. Before the educational intervention began, baseline data were

collected. Due to the stability of data being measured, three data points were considered sufficient. The first baseline data were collected on the initial meeting with participants. Upon the collection and subsequent analysis of stable baseline data, the treatment phase began. Throughout the treatment, observation data were collected following each day of intervention. This allowed the researcher to observe when change began to occur.

Data Analysis. For statistical analysis of the item-level data, hierarchical linear modeling (HLM) was used. Hierarchical linear modeling has been proven to handle nested models with serially-dependent (autocorrelated) data points (Bryk & Raudenbush, 1987; Bryk & Raudenbush, 1992) and it allows for modeling of variables at the individual subject-level (e.g., each subject's individual item ratings over time), at the broader organizational level to which each individual is assigned if applicable. Normality of the residuals of the fitted pre-post intervention model was verified for each item using normal Q-Q plots in SPSS. For HLM analysis, "proc mixed" was used in SAS (Singer, 1998), and the estimation method of the model was restricted maximum likelihood (REML). The covariance structure was "unstructured." Intercepts at the individual subject level were entered into the model as random effects at level-1. Critical alpha was Bonferroni-adjusted to .008 because six models were run (one for each item).

Significant increases in mean values were found pre- to post-intervention for the "accept" item ($F(1,237) = 16.40, p < .001$), the "grant" item ($F(1,237) = 7.83, p < .01$), and the "pay each" item ($F(1,237) = 9.58, p < .01$). Means and

standard deviations pre- and post-intervention for all 6 of the items are shown in table 1.

Table 1

Summary of Pre- and Post-Intervention Data

Items	<i>Baseline</i>		<i>Post Intervention</i>		<i>r</i>
	<i>m</i>	<i>sd</i>	<i>m</i>	<i>sd</i>	
“Pay”	2.29	0.75	2.33	0.65	0.03
“Accept”	2.15	0.82	2.34	0.63	* 0.13
“Support”	2.41	0.72	2.48	0.79	0.05
“Grant”	2.24	0.73	2.38	0.65	* 0.10
“Go”	2.46	0.73	2.43	0.70	0.02
“Pay Each”	2.05	0.83	2.25	0.71	0.13

* $p < .01$

Results

The hypothesis suggested the *I’m Going to College* curriculum would have positive impact on the college-going self-efficacy of rural fifth grade students as evaluated by a subscale of the College-Going Self-Efficacy Scale (CGSES). This hypothesis was supported in three of the six items: “I can get accepted to college” “I can have family support for going to college” and “I could pay for each year of college” as measured by the subscale of the CGSES.

Discussion

College-going rates of high school students are significantly lower in rural communities as opposed to urban areas (OUS, 2011). Many students lack knowledge, access, resources, and support to attend college. Gibbons (2010) suggested that interventions to increase college-going self-efficacy are needed before seventh grade. Organizations such as NOSCA (2012) and ASCA (2012) have created career domain competencies and components of college and career readiness. Professional school counselors are often left searching for materials they can trust to meet those competencies. This current study indicates that using the *I'm Going to College* curriculum has the potential to increase the college-going self-efficacy of rural fifth grade students.

Implications for Practitioners and Counselor Educators

The results from this study demonstrate that professional school counselors may have a useful CGSE intervention and a valid and reliable measurement instrument. With confidence, elementary school counselors can use the College-Going Self-Efficacy Scale to measure the effectiveness of their interventions. This may encourage school counselors to consider engaging in a new approach to data collection in the domain of career development. This study has potential to change the way that elementary school counselors approach not only the career domain, but also the concept of data collection and making data-driven decisions.

These results may also encourage counselor educators to include training

on the important subject of college-going self-efficacy and the impact of using a curriculum like the *I'm Going to College* program. Counselor educators may also consider the value of training school counselors in educational interventions, teaching methods, and the use of the CGSES as a resource in data collection.

Suggestions for Future Research

The effects of this study for future research are significant in bridging the K-12 educational system to the higher educational system as very little research has been done in the area of college-going interventions at the elementary level. The intervention in this study was didactic with components of active learning. Further research is encouraged in the area of experiential learning and college-going self-efficacy of elementary students to determine the significance of students experiencing (use of senses) college first hand. For example, it is suggested to include a college campus visit as a part of future research in this area.

This intervention was completed in a 1-week time period with daily measurements. It may be interesting to see this study repeated with a time series design of a weekly intervention and measurement to determine if more processing time would have an effect on college-going self-efficacy. A follow-up longitudinal study may show if the college-going self-efficacy of these participants culminates into college attendance and completion or not. Research is warranted, following adjustments to the intervention with focus specifically on the items that did not provide statistically significant data. Further research with

an experimental design would be helpful to add strength to this area of research.

Conclusion

This study used a quasi-experimental case-based time-series design to measure the impact of the *I'm Going to College* curriculum—a didactic college access unit—with active learning components on the college-going self-efficacy of rural fifth graders. Hierarchical linear modeling (HLM) was used, and the estimation method of the model was restricted maximum likelihood (REML). The results suggested that there was a positive and statistically significant difference between the CGSES scores of baseline date to post intervention data in three items. Prior to this study, no research had been done on the connection between college-going self-efficacy, rural fifth graders, and a college access unit such as the *I'm Going to College* curriculum. The results of this study have established a need for further research and professional discussion to add to the body of knowledge of professional school counseling.

References

- Alvarez-Jimenez, M., Wade, D., Cotton, S., Gee, D., Pearce, T., Crisp, K., McGorry, P. D., & Gleeson, J. F., (2008). Enhancing treatment fidelity in psychotherapy research: Novel approach to measure the components of cognitive behavioural therapy for relapse prevention in first-episode psychosis. *The Royal Australian and New Zealand College of Psychiatrists*, 42, 1013-1020. doi: 10.1080/00048670802512057
- American Counseling Association (2011). *A guide to state laws and regulations on professional school counseling*. Retrieved from <http://www.counseling.org/docs/licensure/schoolcounselingregs2011.pdf?sfvrsn=2>
- Anderman, E. M., Anderman, L. H., & Griesinger T. (1999). The relation of present and possible academic selves during early adolescence to grade point average and achievement goals. *The Elementary School Journal*, 100(1), 3-17. doi: 10.1086/461940 Retrieved from <http://www.jstor.org/action/showPublication?journalCode=elemschoj&>
- Bandura, A., (1997). *Self-Efficacy: The exercise of control*. New York: W. H. Freeman and Company.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41, 586-598. doi: 10.1037/0022-3514.41.3.586 Retrieved from <http://www.apa.org/pubs/journals/psp/index.aspx>
- Blanck, G., (1990). Vygotsky: The man and his cause. In L.C Moll, *Vygotsky and Education* (pp. 1-27). Cambridge, MA: Cambridge University Press.
- Borckardt, J. J., Nash, M. R., Murphy, M. D., Moore, M., Shaw, D., & O'Neal, P., (2008). Clinical practice as natural laboratory for psychotherapy research: A guide to case-based time-series analysis. *American Psychologist*, 63 (2), 77-95. doi: 10.1037/0003-066X.63.2.77
- Borrelli, B., Sepinwall, D., Bellg, A. J., Breger, R., Carol, D., Sharp, D. L., & Orwig, D. (2005). A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. *Journal Of Consulting & Clinical Psychology*, 73(5), 852-860. doi:10.1037/0022-006X.73.5.852
- Bryk, A.S., & Raudenbush, S.W. (1987). Application of hierarchical linear models to assessing change. *Psychological Bulletin*, 101, 147-158.

- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park: Sage Publications.
- Erikson, E. H. (1963a). *Childhood and society*. New York: W. W. Norton.
- Erikson, E. H. (1963b). *Youth: Change and challenge*. New York: W. W. Norton.
- Erikson, E. H. (1968). *Identity, youth, and crisis*. New York: W. W. Norton.
- Garcia, T. & Pintrich, P. R. (1995). *The role of possible selves in adolescents' perceived competence and self-regulation*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Gibbons, M. M. (2005). *College-going beliefs of prospective first-generation college students: Perceived barriers, social supports, self-efficacy, and outcome expectations* (Doctoral Dissertation). Retrieved from <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1049.pdf>
- Gibbons, M. M. (2010). A measure of college-going self-efficacy for middle school students. *Professional School Counseling*. 13 (4), 234-242. doi: 10.5330/PSC.n.2010-13.234
- Gibbons, M. M. & Borders, L. D. (2010). A measure of college-going self-efficacy for middle school students. *Professional School Counseling*. 13(4). 234-238. doi: 10.5330/PSC.n.2010-13.234
- Horn, L., & Nunez, A. (2000). Mapping the road to college: First-generation students' math track, planning strategies, and context of support (NCES Report 2000-153). Washington D.C: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000153>
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954-969. Retrieved from <http://www.apa.org/pubs/journals/amp/index.aspx>
- Oregon University System. (2011). 2011 Legislative brief higher education: Rural oregon higher education issues and outreach. <http://www.ous.edu/sites/default/files/dept/govrel/files/2011IBRuralEd.pdf>

- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231. Retrieved October 15, 2012 from http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/Prince_AL.pdf.
- Savitz-Romer, M. & Bouffard S. M., (2012). *Ready, willing, and able: A developmental approach to college access and success*. Cambridge, MA: Harvard Education Press.
- Schukajlow, S., Leiss, D., Pekrun, R., Blum, W., Müller, M., & Messner, R. (2012). Teaching methods for modelling problems and students' task-specific enjoyment, value, interest and self-efficacy expectations. *Educational Studies In Mathematics*, 79(2), 215-237. doi:10.1007/s10649-011-9341-2
- Singer, J. D., (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models and individual growth models. *Journal of Educational and Behavioral Statistics*, 24 (4), 323-355. Retrieved from <http://jeb.sagepub.com/>
- Sirinterlikci, A., Zane, L., & Sirinterlikci, A. L. (2009). Active learning through toy design and development. *Journal of Technology Studies*, 35(2), 14-22. Retrieved from <http://scholar.lib.vt.edu/ejournals/JOTS/>
- Smith, S. W., Daunic, A. P., Taylor, G. G., (2007). Treatment fidelity in applied educational research: Expanding the adoption and application of measures to ensure evidence-based practice. *Education and Treatment of Children*, 30(4), 121-134. doi: 10.1353/etc.2007.0033
- Smith, J. D., Handler, L., Nash, M. R., (2010). Therapeutic assessment for preadolescent boys with oppositional defiant disorder: A replicated single-case time-series design. *American Psychological Association*, 22(3), 593-602. doi: 10.1037/a0019697
- Teacher Standards and Practices Commission (TSPC). Retrieved from <http://tspc.oregon.gov/licensure/licensure.asp>
- Warburton, E. C., Bugarin, R., Nunez, A., & Carroll, C. D. (2001). Bridging the gap: Academic preparation and postsecondary success of first- generation students (NCES Report 2001-153). Washington, DC: U.S. Department of Education, National Center for Education Statistics. <http://nces.ed.gov/pubs2001/2001153.pdf>

Chapter Four

Elementary College Access Program and its Effect on the College-Going Self-Efficacy of Rural Fifth Grade Students

General Conclusion

This dissertation presented two manuscripts thematically linked by college-going self-efficacy and rural fifth grade students. The first manuscript included an examination of college and career readiness, child development theories including self-efficacy, and instructional strategies for professional school counselors. Review of the literature provided strong support for elementary professional school counselors to use college-access curriculum as a developmentally appropriate intervention toward the end goal of positively impacting rural elementary students' college-going self-efficacy.

In manuscript two, review of related literature supported the College-Going Self-Efficacy Scale (CGSES) as a valid and reliable instrument for accurately measuring college-going self-efficacy. This study provided evidence of meaningful change in the college-going self-efficacy of rural fifth grade students from the baseline data to data gathered during the treatment phase. Due to the lack of research in the area of college-going self-efficacy for elementary students, this study opens possible discourse between practitioners and researchers in this area. Further research is recommended.

Recommendations for Further Research

Research to further understand the impact of *The I'm Going to College* curriculum, and others like it, on the college-going self-efficacy of rural fifth

graders is important for improving the work of professional school counselors in rural areas. For example, in this study, day three held the most significant changes in student scores on the instrument. Day three included content related to financial literacy and the understanding that there are many ways to pay for college. One possibility for the significant change on day three could be connected to the lower socioeconomic status of the rural participants. Data presented by the OUS (2011) clearly indicate the serious concerns for the barriers that hinder students from lower socioeconomic rural families. The lack of financial ability to pay for college has several ramifications including, of course, hindering families from paying for college and even with having familiarity with college given the family mindset "we cannot afford college" precludes their exploration of college options. In addition, students from lower income families are less likely to complete college even if they do start. (OUS, 2011) These concerns are real to many families. This particular day in the curriculum taught students new ways to consider paying for college. Improving curriculum by identifying those areas of self-efficacy that may be lacking individually or at a community level, such as how to pay for college, may increase college-going self-efficacy. It is recommended that other studies be conducted to target specific areas of college-going self-efficacy through adjustments of the curriculum. For example, future studies to incorporate an experiential component (a college campus visit) are recommended for this population. As previously stated, OUS (2011) reported distance from and lack of familiarity with college as barriers. It

would be interesting to determine the impact of a college campus visit on the college-going self-efficacy of rural fifth grade students independently and in conjunction with the *I'm Going to College* curriculum. It is also recommended that this intervention and instrument be assessed with at-risk urban fifth grade elementary students. Similar to rural students, at-risk urban students may lack knowledge, exposure to college information, and family or community members who model college-going behaviors. Socioeconomic considerations are also a concern for lower income urban students. It would be beneficial to determine if the college-going self-efficacy of urban fifth grade students could be increased with a similar intervention.

This study was conducted as a time-series design with daily interventions and measurements. A study with weekly interventions and measurements to determine the impact that pacing may have on the college-going self-efficacy of rural fifth grade students might be useful. This would allow for the implementation of more intense scaffolding strategies. The weekly intervention would allow more process time between sessions for participants to engage in talk time (a scaffolding strategy) and more process time for participants to organize new knowledge.

Implications of this dissertation can be extended to practitioners, counselor educators, and researchers. The findings in this study support the importance of educating school counselors in effective instructional strategies and the value of additional teaching requirements for licensure. Professional

school counselors, as well as counselor educators, agree on the end goal of supporting students to reach their highest potential - their best possible selves. With the understanding of childhood development, self-efficacy, possible selves, and effective instructional strategies, this study supports a step in that direction. This dissertation research and findings not only move the field of professional school counseling closer towards the goal of increasing college-going rates, it also raises more questions to be answered. Therefore, further research is recommended in the area of college-going self-efficacy at the elementary level.

Bibliography

- Adler, A. (2010). *Understanding human nature*. New York: Premier Books.
- Alvarez-Jimenez, M., Wade, D., Cotton, S., Gee, D., Pearce, T., Crisp, K., McGorry, P. D., & Gleeson, J. F., (2008). Enhancing treatment fidelity in psychotherapy research: Novel approach to measure the components of cognitive behavioural therapy for relapse prevention in first-episode psychosis. *The Royal Australian and New Zealand College of Psychiatrists*. 42. 1013-1020. doi: 10.1080/00048670802512057
- American Counseling Association (2011). *A guide to state laws and regulations on professional school counseling*. Retrieved from <http://www.counseling.org/docs/licensure/schoolcounselingregs2011.pdf?sfvrsn=2>
- American School Counselor Association (2004). *ASCA national standards for students*. Alexandria, VA: Author. Retrieved from http://static.pdesas.org/content/documents/ASCA_National_Standards_for_Students.pdf
- American School Counselor Association (2010). *Ethical standards for school counselors*. Retrieved from <http://www.schoolcounselor.org/files/EthicalStandards2010.pdf>
- American School Counselor Association (2012). *The ASCA national model: A framework for school counseling programs, 3rd Ed.* Alexandria, VA: Author.
- Anderman, E. M., Anderman, L. H., & Griesinger T. (1999). The relation of present and possible academic selves during early adolescence to grade point average and achievement goals. *The Elementary School Journal*, 100(1), 3-17. doi: 10.1086/461940 Retrieved from <http://www.jstor.org/action/showPublication?journalCode=elemschoj&>
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A., (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.

- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, *41*, 586-598. doi: 10.1037/0022-3514.41.3.586
Retrieved from <http://www.apa.org/pubs/journals/psp/index.aspx>
- Blanck, G., (1990). Vygotsky: The man and his cause. In L.C Moll, *Vygotsky and Education* (pp. 1-27). Cambridge, MA: Cambridge University Press.
- Borckardt, J. J., Nash, M. R., Murphy, M. D., Moore, M., Shaw, D., & O'Neal, P., (2008). Clinical practice as natural laboratory for psychotherapy research: A guide to case-based time-series analysis. *American Psychologist*, *63* (2), 77-95. doi: 10.1037/0003-066X.63.2.77
- Borrelli, B., Sepinwall, D., Bellg, A. J., Breger, R., Carol, D., Sharp, D. L., & Orwig, D. (2005). A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. *Journal Of Consulting & Clinical Psychology*, *73*(5), 852-860. doi:10.1037/0022-006X.73.5.852
- Brown, S. D. & Lent, R. W, (2004). *Career development and counseling: Putting theory and research to work*. John Wiley & Sons.
- Bryk, A.S., & Raudenbush, S.W. (1987). Application of hierarchical linear models to assessing change. *Psychological Bulletin*, *101*, 147-158.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park: Sage Publications.
- Cadely, H., Pittman, J. F., Kerpelman, J. L., & Adler-Baeder, F. (2011). The role of identity styles and academic possible selves on academic outcomes for high school students. *Identity*, *11*(4), 267-288.
doi:10.1080/15283488.2011.613580
- Cochran, D. B., Wang, E. W., Stevenson, S. J., Johnson, L. E., Crews, C. (2011). Adolescent occupational aspirations: Test of Gottfredson's theory of circumscription and compromise. *The Career Development Quarterly*. *59*. 412-427. doi: 10.1002/j.2161-0045.2011.tb00968.x
- Destin, M., & Oyserman, D. (2009). From assets to school outcomes: How finances shape children's perceived possibilities and intentions. *Psychological Science*, *20*(4), 414-418. doi: 10.1111/j.1467-9280.2009.02309.x

- Destin, M., & Oyserman, D. (2010). Incentivizing education: Seeing schoolwork as an investment, not a chore. *Journal of Experimental Social Psychology, 46*, 846-849. doi: 10.1016/j.jesp.2010.04.004
- Eccles, J. S., Vida, M. N., & Barber, B. (2004). The relation of early adolescents' college plans and both academic ability and task-value beliefs to subsequent college enrollment. *Journal of Early Adolescence, 24*(1), 63-77. doi:10.1177/0272431603260919
- Erikson, E. H. (1963a). *Childhood and society*. New York: W. W. Norton.
- Erikson, E. H. (1963b). *Youth: Change and challenge*. New York: W. W. Norton.
- Erikson, E. H. (1968). *Identity, youth, and crisis*. New York: W. W. Norton.
- Garcia, T. & Pintrich, P. R. (1995). *The role of possible selves in adolescents' perceived competence and self-regulation*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Gibbons, M. M. (2005). *College-going beliefs of prospective first-generation college students: Perceived barriers, social supports, self-efficacy, and outcome expectations* (Doctoral Dissertation). Retrieved from <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1049.pdf>
- Gibbons, M. M. (2010). A measure of college-going self-efficacy for middle school students. *Professional School Counseling, 13* (4), 234-242. doi: 10.5330/PSC.n.2010-13.234
- Gibbons, M. M. & Borders, L. D. (2010). A measure of college-going self-efficacy for middle school students. *Professional School Counseling, 13*(4). 234-238. doi: 10.5330/PSC.n.2010-13.234
- Gibbons, M. M. & Shoffner, M. F. (2004). Prospective first-generation college students: Meeting their needs through social cognitive theory. *Professional School Counseling, 8* (1). 91-97. Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=235>
- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph, 28*(6). 545-579. doi: 10.1037/0022-0167.28.6.545

- Gottfredson, L. S. (2002). Gottfredson's theory of circumscription, compromise, and self creation. In D. Brown (Ed.), 2002, *Career Choice and Development* (pp. 85-148). San Fransisco: Jossey-Bass.
- Gottfredson, L. S., & Lapan, R. T. (1997). Assessing gender-based circumscription of occupational aspirations. *Journal of Career Assessment*, 5(4), 419-441.
- Horn, L., & Nunez, A. (2000). Mapping the road to college: First-generation students' math track, planning strategies, and context of support (NCES Report 2000-153). Washington D.C: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000153>
- Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 41(2), 75-86. doi: 10.1207/s15326985ep4102_1
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79-122. doi: 10.1006/jvbe.1994.1027
- Lent, R. W., Brown, S. D., & Larkin, K. C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. *Journal of Counseling Psychology*, 31, 356-362. doi: 10.1037/0022-0167.31.3.356
- Mainwaring D., & Hallam S. (2010). 'Possible selves' of young people in a mainstream secondary school and a pupil referral unit: a comparison. *Emotional and Behavioural Difficulties*, 15 (2), 153-169. doi: 10.1080/13632752.210.480889
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954-969. Retrieved from <http://www.apa.org/pubs/journals/amp/index.aspx>
- Moll, L. C., (1990). Introduction. In L.C Moll, *Vygotsky and Education* (pp. 1-27). Cambridge: Cambridge University Press.
- National Association for College Admissions Counseling (2012). Professional college knowledge: Re-envisioning how we prepare our college readiness workforce. Arlington, VA: Savitz-Romer, M. Retrieved from <http://www.nacacnet.org/research/research-data/Documents/ProfCollegeKnowledge.pdf>

- National Office for School Counselor Advocacy (NOSCA). (2011). *School counselors literature and landscape review* [Data file]. Retrieved from http://media.collegeboard.com/digitalServices/pdf/nosca/11b_4045_Lit_Review_BOOKLET_WEB_111104.pdf
- National Office for School Counselor Advocacy (NOSCA). (2012). *Elementary school counselor's guide: NOSCA's eight components of college and career readiness counseling* [Data file]. Retrieved from http://media.collegeboard.com/digitalServices/pdf/advocacy/nosca/11b-4383_ES_Counselor_Guide_WEB_120213.pdf
- Oregon University System. (2011). 2011 Legislative brief higher education: Rural Oregon higher education issues and outreach. <http://www.ous.edu/sites/default/files/dept/govrel/files/2011IBRuralEd.pdf>
- Oyserman, D., Johnson, E., & James, L. (2011). Seeing the destination but not the path: Effects of socioeconomic disadvantage on school-focused possible self content and linked behavioral strategies. *Self and Identity*, 10, 474-492. doi: 10.1080/15298868.2010.487651
- Priest, S., & Gass, M. (1997). *Effective leadership in adventure programming*. Champaign, IL: Human Kinetics.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231. Retrieved October 15, 2012 from http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/Prince_AL.pdf.
- Savitz-Romer, M. & Bouffard S. M., (2012). *Ready, willing, and able: A developmental approach to college access and success*. Cambridge, MA: Harvard Education Press.
- Schukajlow, S., Leiss, D., Pekrun, R., Blum, W., Müller, M., & Messner, R. (2012). Teaching methods for modelling problems and students' task-specific enjoyment, value, interest and self-efficacy expectations. *Educational Studies In Mathematics*, 79(2), 215-237. doi:10.1007/s10649-011-9341-2
- Schultz, B. D., (2007). "Not satisfied with stupid band-aids": A portrait of a justice oriented, democratic curriculum serving a disadvantaged neighborhood. *Equity & Excellence in Education*. 40, 166-176. doi: 10.1080/10665680701218459

- Schunk, D. H., & Swartz, C. W. (1993). Goals and progress feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology, 18*, 337-354. doi: 10.1006/ceps.1993.1024 Retrieved from <http://www.journals.elsevier.com/contemporary-educational-psychology/>
- Singer, J. D., (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models and individual growth models. *Journal of Educational and Behavioral Statistics, 24* (4), 323-355. Retrieved from <http://jeb.sagepub.com/>
- Sirinterlikci, A., Zane, L., & Sirinterlikci, A. L. (2009). Active learning through toy design and development. *Journal of Technology Studies, 35*(2), 14-22. Retrieved from <http://scholar.lib.vt.edu/ejournals/JOTS/>
- Smith, S. W., Daunic, A. P., Taylor, G. G., (2007). Treatment fidelity in applied educational research: Expanding the adoption and application of measures to ensure evidence-based practice. *Education and Treatment of Children, 30*(4),121-134. doi: 10.1353/etc.2007.0033
- Smith, J. D., Handler, L., Nash, M. R., (2010). Therapeutic assessment for preadolescent boys with oppositional defiant disorder: A replicated single-case time-series design. *American Psychological Association, 22*(3), 593-602. doi: 10.1037/a0019697
- Trusty, J., Niles, S., Carney, J. (2005). Education-career planning and middle school counselors. *Professional School Counseling, 9*(2). 136-143. Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=235>
- Vygotsky, L., (1986). *Thought and language*. Cambridge, MA: The Massachusetts Institute of Technology.
- Vygotsky, L. S., (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Warburton, E. C., Bugarin, R., Nunez, A., & Carroll, C. D. (2001). Bridging the gap: Academic preparation and postsecondary success of first- generation students (NCES Report 2001-153). Washington, DC: U.S. Department of Education, National Center for Education Statistics. <http://nces.ed.gov/pubs2001/2001153.pdf>

- Wahl, K. H., & Blackhurst, A. (2000). Factors affecting the occupational and educational aspirations of children and adolescents. *Professional School Counseling, 3* (5), 367-374. Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=235>
- Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal Of Child Psychology & Psychiatry & Allied Disciplines, 17*(2), 89-100. doi:10.1111/1469-7610.ep11903728
- Yawkey, T. D. & Aronin, E. L. (2001). Fostering relevance with career education in the elementary school. *Education, 95*(1). 44-50.

APPENDIX A

Participant Demographic Questionnaire

Directions: Please circle or write the answer(s) that best describes you.

1. **Gender:** Male Female
2. **Age:** 9 10 11 12
3. **Ethnicity/Race:** Caucasian/White African American/Black
 Hispanic/Latino Native American
 Asian American/Asian Multiracial
 Other
4. **What is your HIGHEST educational goal- how far do you want to go in school?**
 Enter High School Graduate from High School
 Enter Trade School Graduate from Trade School
 Enter Community College Graduate from Community College
 Enter Four-Year University Graduate from Four-Year University
 Enter Graduate School (like law school, medical school, getting a Master's or a PhD degree)
 Graduate from Graduate School Enter Military
5. **I will be the first person in my family to go to college** Yes or
 No
6. **There are people in my family who have gone to college** Yes or
 No
7. **In your opinion, how likely is it that you actually will go to college right after high school?**
 Not at all Likely Somewhat Likely Likely Very Likely
 Positive
8. **In your opinion, how likely is it that you actually will graduate from college within five years after high school?**
 Not at all Likely Somewhat Likely Likely Very Likely
 Positive
9. **Have you ever visited (been to) a college campus?** Yes No
10. **Besides getting good grades, what are the three most important things people need to do in order to get into college?**
11. **What happens at college (what do people do in college)?**
12. **Besides getting good grades, what are the three most important things people need to do in order to graduate from college?**

APPENDIX B

College-Going Self-Efficacy Subscale of Attendance

Adapted from College-Going Self-Efficacy Scale created by Melinda Gibbons, Ph.D.

Directions: Please read each of the following questions and answer them as honestly as possible. Choose the response that best describes how you feel about each question. There is no right or wrong answer. When answering these questions, remember that college means any type of schooling after high school (trade school, community college, four year university, military).

How sure are you about being able to do the following?

1. I can find a way to pay for college.

Not Sure at all Somewhat Sure Sure Very Sure

2. I can get accepted to college.

Not Sure at all Somewhat Sure Sure Very Sure

3. I can have family support for going to college.

Not Sure at all Somewhat Sure Sure Very Sure

4. I can get a scholarship or grant for college.

Not Sure at all Somewhat Sure Sure Very Sure

5. I can go to college after High School.

Not Sure at all Somewhat Sure Sure Very Sure

6. I could pay for each year of college.

Not Sure at all Somewhat Sure Sure Very Sure

APPENDIX C

A copy of the *I'm Going to College* curriculum used in this study can be obtained by emailing the author at jensen.counseling@gmail.com.

